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# VALUATION OF PALESTINIAN REFUGEE LOSSES

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A Study Based on the National  
Wealth of Palestine in 1948

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The author would like to express his gratitude to Philippe de Mijolla for his continuous support on this project.

# STRATEGIC SUMMARY

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## OBJECTIVES

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This report forms the third phase of a project which provides a quantification of the aggregate value of losses incurred by Palestinian Arab refugees as a result of their forced displacement from what is now known as Israel, following military action during the years 1947 and 1948. We aimed to provide a comprehensive view of a full range of financial losses suffered by approximately three quarters of a million Palestinian people so displaced.

Whereas the ultimate solution of the, hitherto intractable, right of return and/or compensation issue would require negotiations between Israelis and Palestinians, our objective has been to provide Palestinian negotiators with a reasoned, realistic and independent aggregate financial valuation.

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## METHODOLOGY

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In order to provide a manageable assessment of the wide range of aggregate financial losses incurred by Palestinian refugees, we have broken down the present study into seven separate categories of loss. Each component has been separately identified and defined, and then quantified using its own specially developed and specific valuation methodology, always rooted firmly in international valuation standards.

We have taken care to report, in a transparent manner, the rationale and functionality of our methods so that experienced negotiators (the intended users

of this study) can make an informed assessment of the level of judgment (if any) that has been used in deriving values. In addition, a full audit trail is integral to study.

In Section 1 of the report, we introduced the scope of reference of our work and key findings from our initial review of past estimates. In Section 2, we presented an analysis of Palestinian wealth in 1948 based on the national income approach. We concluded that such approach is not useful to provide a global assessment of Palestinian refugee losses but can be used to determine a minimum bound for negotiations.

In Section 3, we have introduced fundamental adjustment principles, e.g. number of refugees, scope of land to be included (falling outside the Armistice Line), number of Arabs remaining in Israel in 1948, land sales in pre war years, growth rate of national income, and exchange rate determination.

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## VALUATION FINDINGS

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We set out below a summary of the findings of each of the loss types reviewed.

### **VALUATION OF RURAL LAND**

Section 4 aimed at valuing losses incurred by Palestinian Arab refugees from the 1948 war in terms of rural land and rural buildings. In the 60 years that have passed, the issues and questions of reparation for this loss have been much debated and many attempts at valuation have been made by various groups or individuals such as the United Nations Conciliation Commission for Palestine, the Israeli State itself, the Arab League and private academic researchers.

As we find it, the overall loss of rural property by the 1948 refugees represented a grand total of **£P398 221 800** (in 1948 values). This value has been calculated by aggregating results for the following types of immovable property: rural land for £P236 716 172 (excluding Beersheba sub-district); Village built-up areas for £P6 249 669 (land and buildings); and Beersheba sub-district land for £P155 255 959.

#### **VALUATION OF URBAN PROPERTY**

In section 5, we have been reviewing information on urban land holdings and buildings in Palestine in 1947. We arrived at a total value of **£P126,830,885** (in 1948 value). This figure has been obtained as follows: £P20,674,429 (urban land) plus £P140,497,816 (Urban buildings) minus £P34,341,360 (deduction for sale of property from Arabs to Jews 1945-1947). It should be noted that construction costs information has been found to help value urban buildings in pre war Palestine.

#### **VALUATION OF HOLY PLACES**

In Section 6, we have valued holy places. The loss of such property represents a grand total of **£P1,602,280** (in 1948 price). It should be noted that such exercise has not been performed in the past by Arab or Israel valuers. This was therefore a first attempt to derive a value for real estate associated to a religious purpose. We were satisfied with information obtained regarding the scope of loss holy places and we have designed a valuation protocol from official construction costs data obtained in Section 5.

#### **VALUATION OF THE LOSS OF EMPLOYMENT AND LIVELIHOOD (LOST OPPORTUNITIES)**

Section 7 provided a valuation of employment and livelihood losses of Palestinian Arab refugees. We have been concerned with the notion of lost opportunities rather than psychological damage. In carrying out our valuation of the loss of employment and livelihood, we have

recognized that a loss took place in respect of income forgone due to loss of jobs and complementary inputs over a finite horizon. This constituted a legitimate grievance that had to be included in our comprehensive assessment of Palestinian refugee losses.

The loss of employment and livelihood represented a grand total of **£P122,739,012** (in 1948 value). We had to develop two distinct methodologies to assess the loss of employment and the loss of livelihood. We have assumed that 25% of the Palestinian population was fully employed in the economy and therefore was entitled to a compensation for the loss of employment, the remaining 75% being compensated for the loss of livelihood. At this stage, we have computed the loss of finite time periods that will need to be discussed in great length.

#### **VALUATION OF PERSONAL PROPERTY AND MOVABLE ASSETS**

In Section 8, an estimation of losses by Palestinian Arab refugees of movable assets has been presented. Parameters in respect of livestock, private vehicles, commodities, foreign assets and household chattels owned by Palestinian Arabs and their consequent loss have been provided on the basis of historical data. We arrived at an aggregate figure of **£P44,853,524** (in 1948 values) broken down as follows:

1. £P5,072,520 (1948) in livestock and agricultural implements
2. £P235,534 (1948) in private vehicles
3. £P1,765,265 (1948) in commodities
4. £P14,542,770 (1948) in foreign assets
5. £P23,237,435 (1948) in clothing and household chattels.

In our valuation, we have assumed that refugees have left behind all their properties. We understand the past valuers have proposed ratios for property left behind, i.e. Prof. A. Kubursi arguing that refugees had taken with them half of their property. However there is no basis to justify such ratio and we have decided to

assumed, unless proved otherwise, that all movable property has been lost.

#### **VALUATION OF BUSINESS LOSSES**

Section 9 attempted to value the loss of income-producing business property suffered by Palestinian Arabs as a result of the 1948 war. At the end of 1947, Palestine's overall economy was healthy, especially when compared to other countries still suffering from the effects of World War Two. The industrial sector as a whole was predominantly Jewish, Arabs being mostly involved in agriculture, milling grain, tobacco manufacturing and parts of the textile and metal industries. Enumeration of national wealth has been carried out in pre war Palestine.

We estimated that the value of Palestinian income-producing property at **£P85,516,266** (in 1948 value). Of course, special care has been exercised to distinguish the shares of Arabs and Jews. Information has been obtained for small enterprises, hotels and restaurant, commerce and construction businesses, laundries and small workshops which were predominantly Arab-owned. At this stage of our review, we could not identify the Palestinian share of large industrial companies.

#### **VALUATION OF STATE-OWNED PROPERTY**

State-owned property was a significant part of the Palestinian economy. Infrastructure such as roads, railways and seaports, as well as postal services and telecommunications played a crucial role in mobilizing the factors of production facilitating economic growth in the Palestine. Furthermore, the public sector encompassed a noteworthy stock of buildings enabling public services such as policing, education, health care and government at the national and local levels.

Our preliminary valuation of state-owned property amounted to **£P37,062,985** (in 1948 value). We believe that further research may provide the needed information. We propose to revisit this

Section when additional information is obtained.

### **GLOBAL ESTIMATE AND PRESENT DAY VALUATION**

We can summarize the findings of our assessment as follows:

Section	Loss category	Value in £P 1948	Value in USD 1948 at 4.0319/£P
Sect 4	Rural land	398,221,800	1,605,590,475
Sect 5	Urban land	126,830,885	511,369,445
Sect 6	Holy places	1,602,280	6,460,233
Sect 7	Loss of employment and livelihood	122,739,012	494,871,422
Sect 8	Personal property and movable assets	44,853,524	180,844,923
Sect 9	Business losses	85,516,266	344,793,033
Sect 10	Arab share of state-owned property	37,062,985	149,434,249
<b>TOTAL</b>		<b>816,826,752</b>	<b>3,293,363,781</b>

The total value of Palestinian refugee losses in 1948 has been assessed at £P816,826,752 or USD3,293,363,781.

In the last section (Section 11), we have examined the possible methods of adjusting the value of losses to reflect current day monetary values. The main question was: What reasonable rate of interest accruing from the date of loss needs to be applied to account for the passage of time?

We have demonstrated the following:

- It is a standard business practice to charge interest to people and organizations willing to give up the temporary use of their money.

- We have determined the period over which the interest will run, the date of loss being assumed to be 29 November 1947, the date on which the United Nations General Assembly adopted Resolution 181 concerning the partition of Palestine. We advocated that interest should cease to accrue on either the date of final negotiation of an agreement or the date of payment of compensation.
- For choosing the appropriate interest rate, we have argued that the rate of inflation is not sufficient. We have proposed to use a rate derived from a risk-free instrument. Such rate would include all risk factors (systematic, regulatory, and inflation), plus the time value of the money itself. The rate would be based on the UK Gilts market because we could not identify reliable data for neighboring countries. The rate for the period of reference is an average of 7.58%.
- We have rejected the notion of simple interest on the grounds that compounding is an international standard applied in most time value applications. We have proposed to use yearly compounding to reflect standard practice on a conservative basis.
- The final aggregate value of USD3,293,363,781 has been actualized from 1st January 1948 to 31 December 2007 by using the rate of 7.58% on a yearly compounding basis. We obtain the following result:  
**USD263,466,074,302**

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## ABBREVIATIONS AND ACRONYMS

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<b>AL49</b>	Armistice Line of 1949
<b>ASI</b>	Adam Smith International
<b>BADIL</b>	Resource Center for Palestinian Residency and Refugee Rights
<b>CPI</b>	Consumer Price Index
<b>FV</b>	Future Value
<b>GAV</b>	Gross Annual Value
<b>GAVP</b>	Generally accepted valuation principles
<b>GBP</b>	Pound sterling
<b>IAASB</b>	International Auditing and Assurance Standards Board
<b>ICSID</b>	International Centre for Settlement of Investment Disputes
<b>IFAC</b>	International Federation of Accountants
<b>IFRS</b>	International Financial Reporting Standards
<b>IPSAS</b>	International Public Sector Accounting Standards
<b>IVSC</b>	International valuation standards committee
<b>MPC</b>	Marginal propensity to consume
<b>MIL</b>	Palestine currency during British Mandate, 1£P= 1000 Mils
<b>MIS</b>	Management Information System
<b>NAV</b>	Net Annual Value
<b>NI</b>	National Income
<b>NNI</b>	Nominal National Income
<b>NSU</b>	Negotiations Support Unit
<b>£P</b>	Palestinian pound (1948)
<b>PC</b>	Propensity to consume
<b>RoPL</b>	Ratio of Palestinian land
<b>SoL</b>	Standard of living
<b>SVP</b>	Sub-Valuation Programme
<b>UNCC</b>	United Nations Compensation Commission
<b>UNCCP</b>	United Nations Conciliation Commission for Palestine
<b>UNRWA</b>	United Nations Relief and Works Agency for Palestine Refugees in the Near East
<b>UNTSO</b>	United Nations Truce Supervisory Organization
<b>USD</b>	United States dollar

# SECTION 1 – SCOPE OF THE PROJECT AND METHODOLOGY RATIONALE

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## 1.1. BACKGROUND

On 29 November 1947 the United Nations General Assembly adopted resolution 181 approving the partition of Palestine into an Arab and Jewish state. The approval of the Partition Plan (See map on the right), which was intended to terminate the League of Nations mandate for Palestine, triggered an internal armed conflict that subsequently, after the establishment of the State of Israel in April 1948, escalated into the first Arab-Israeli war.

During the conflict, which involved a terror campaign against, and forcible expulsions of, the Palestinian population, approximately 750,000 Palestinians – almost half of the entire Arab population of Palestine – fled their homes. Most refugees fled to what is now known as the West Bank and the Gaza Strip; the rest went to Lebanon, Syria, Jordan and other countries within and outside the region.



In the course of their flight, the refugees left behind their belongings and all manner of property, including their homes, private property, livelihood/source of employment, farms, shops, factories and financial assets. In the years following the conflict, the State of Israel denationalized the refugees and systematically expropriated or frozen their assets. The Palestinian refugee issue was further aggravated in 1967 when, in the aftermath of the Second Arab-Israeli war, another 325,000 Palestinians fled the West Bank to Jordan and other countries within and outside the region. Many of these were refugees from the 1948 war and thus became refugees for the second time.

We have to recognize that the number of registered Palestine refugees has subsequently grown from 914,000 in 1950 to more than 4.4 million in 2006, and continues to rise due to natural population growth (See Table 1 from UNRWA<sup>1</sup>). BADIL has estimated that the number of refugees could be around 7 million.<sup>2</sup> Very few of these people have been able to return; most

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<sup>1</sup> Under UNRWA's operational definition, Palestinian refugees are persons whose normal place of residence was Palestine between June 1946 and May 1948, who lost both their homes and means of livelihood as a result of the 1948 Arab-Israeli conflict. UNRWA's definition of a refugee also covers the descendants of persons who became refugees in 1948.

<sup>2</sup> See the BADIL website at <http://www.badil.org/Refugees/facts&figures.htm>

live in refugee camps in West Bank, Gaza and Lebanon. No compensation has been paid for the property that the refugees left behind when fleeing Palestine or for their suffering as a result of the long-standing displacement.

TABLE 1 : NUMBER OF REGISTERED REFUGEES

Fields of Operations	Official Camps	Registered Families	Registered Refugees in camps	Total Registered Refugees
Jordan	10	63,591	328,076	1,858,362
Lebanon	12	50,806	215,890	408,438
Syria	9	26,645	119,055	442,363
West Bank	19	39,895	186,479	722,302
Gaza Strip	8	93,074	478,272	1,016,964
<b>Agency total</b>	<b>58</b>	<b>274,011</b>	<b>1,327,772</b>	<b>4,448,429</b>

Source: UNRWA, figures as of 31 December 2006

The Palestinian refugee issue has rightly been identified as one of the “permanent status” issues since the beginning of the Middle East peace process in the early 1990s.<sup>3</sup> While the substantive aspects of the solution remain a matter for negotiation between Israelis and Palestinians, the eventual solution will need to be based on premises that will include two components: a right of return and/or reparation including compensation.

These fundamental elements were affirmed in paragraph 11 of General Assembly resolution 194 (III) of 11 Dec. 1948, resolving that “the refugees wishing to return to their homes and live at peace with their neighbors should be permitted to do so at the earliest practicable date, and that compensation should be paid for the property of those choosing not to return and for loss of or damage to property which, under principles of international law or in equity, should be made good by the Governments or authorities responsible.” In the same paragraph, the General Assembly instructed the United Nations Conciliation Commission, which was established by the resolution, “to facilitate the repatriation, resettlement and economic and social rehabilitation of the refugees and the payment of compensation”.<sup>4</sup>

It is therefore important to propose a comprehensive framework, addressing both the need to resolve the status and life conditions of the refugees and their claims for full reparations, including property and nonmaterial damages.

## 1.2. SCOPE OF THIS STUDY

The scope of work for Phase III of the project involves the quantification of the aggregate value of the property losses of Palestinian refugees as a result of their displacement from what is now Israel in 1947-48. The results of the project are intended to provide a technically justified basis for the Palestinian claims in the permanent status negotiations.

<sup>3</sup> See also the *Declaration of Principles on Interim Self-Government Arrangement*, 13 Sept. 1993, art. 4, para. 3. See also *Performance-based Roadmap to a Permanent Two-State Solution to the Israeli-Palestinian Conflict (“Roadmap”)*, at 6 (listing borders, Jerusalem, refugees and settlements as elements of the “final, permanent status resolution”).

<sup>4</sup> See also United Nations Security Council resolution 242 (1967), which affirmed the necessity “[f]or achieving a just settlement of the refugee problem.”

Phase I of the project involved a review of existing estimates of the aggregate value of the refugee property losses, in particular in order to assess the soundness of the methodologies used and to identify possible gaps in these estimates. Past estimates were assessed in particular to determine whether, or to what extent, these methods were appropriate in view of the purpose for which these valuations will be used in the permanent status negotiations, i.e. claims for restitution and compensation.

In Phase II we produced a report providing an initial quantification of the aggregate value of the property losses incurred by the refugees. The report built on the review of the existing estimates of the aggregate value of losses. In particular the report quantified the full extent of the losses, including those excluded from the existing historical estimates. The report also provided a basic audit trail with detailed methodological analysis and data references and justifications. A workshop was held in Ramallah in August 2007 to solicit Palestinian expert opinion on the methodologies and data employed by us in the draft report.

The purpose of Phase III of the project is twofold:

- (1) revise the existing estimates, to the extent necessary, so as to reflect the purpose for which they will be used; and
- (1) value losses not covered by the existing estimates but for which restitution and/or compensation should be claimed in the negotiations.

The principal deliverable of this report is an aggregate figure, or a range of figures, representing the total value of Palestinian losses, supported by appropriate technical data and reasoning.

It should be noted that this report does not address the issue of restitution and/or rights of return. We have sought to identify the true scope of the economic dimensions of a solution on refugees from the point of view of a full compensation perspective. However, our calculations have been carried out in a database system to allow running different scenarios based on refugee rehabilitation and reparations at a later stage.

### 1.3. LEGAL AND TECHNICAL FRAMEWORK OF THE PROJECT

#### (A) TECHNICAL PREMISES

For technical reasons, the assessment of the aggregate value of the Palestinian property losses is based on the assumption that all properties have been lost. This assumption serves to simplify the valuation exercise by allowing the use of aggregate (instead of individualized) valuation methodologies.

The assumption is based on technical considerations and therefore obviously without any prejudice to the Palestinian negotiating position on the issue of property restitution or any eventual negotiated solution on property restitution. Since the valuation exercise results in an aggregate figure that represents the total value of the Palestinian refugee property losses, a negotiated result providing for restitution can only result in a reduction of the global figure calculated in the present exercise. This reduction can be made in the course of the negotiations to reflect the scope of property restitution actually agreed.

The adopted approach is based on the following considerations:

1. Calculation of the total value of the refugee properties on the basis of the assumption that they will not be restored will produce the maximum figure that can be claimed; to the extent that some of these properties will in fact be made available for restitution as a result of the permanent status negotiations, appropriate adjustments can be made to the global figure by adjusting the applicable method of valuation. This adjustment will take into account the fact that, to the extent that the refugee properties are restored, any compensation will be limited to compensation for any damage or reduction in value of the properties, or for loss of profit for income-producing properties;
2. We have not obtained details regarding Palestinian refugee properties still available for restitution and not destroyed; consequently, it will be very difficult, without further detailed studies, to identify the proportion of the properties that can be returned and those for which only compensation will be available because they no longer exist;
3. With respect to income-producing properties that have not been destroyed and are available for restitution, information about the profit generated by their current holders from these properties since 1947-48 is not currently available; consequently, it would be difficult, if not impossible, to assess the aggregate value of these profits;
4. Which ones of the properties that are available for restitution will in fact be restored as a result of the permanent status negotiations will only be known upon completion of the negotiations; consequently, it will be practically impossible to identify at this stage which ones of the properties that are available for restitution will in fact be restored;
5. The uncertainties resulting from (2), (3) and (4) can be taken into account in the course of the negotiations as further information becomes available by adjusting the global figure adopted as a starting point in the negotiations. An agreement to restore certain properties that are available for restitution will result in an adjustment of the figure to reflect the different purpose and methodology of the valuation exercise (compensation for damage or for decrease in value, or for loss of profit rather than for full market value of the properties).<sup>5</sup>

#### (B) LEGAL FRAMEWORK

We have performed the valuation exercise on the basis of the following legal assumptions:

1. Restitution of property is the primary remedy in international law in case of unlawful expropriation, confiscation or other form of taking. In addition, a refugee whose property is restored is entitled to compensation for any damage or for any reduction in value of the property during its non-availability, as well as for loss of profit in case of income-producing property; Under international law, Palestinian property should be restituted unless materially impossible or per refugee choice. In order to establish a just figure for compensation, the scope of restitution will have to first be agreed with the Israelis (This report does not include any scenarios on restitution).

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<sup>5</sup> This implies that financial and property valuation expertise should be made available to the Palestinian negotiators in the course of the negotiations.

2. To the extent that restitution of the property is not possible, refugees are entitled to compensation for the full market value of the property lost. In case of income-generating property, this involves an assessment of the going concern value of the property using an appropriate valuation methodology (or, to the extent the necessary information is available, the assessment of actual profit generated from the property, if higher) that takes into account the future income to be generated from the property by its new owner;
3. The categories of losses covered by the valuation include personal property, real property (including urban buildings and land as well as rural buildings and land), business property, financial property (i.e. bank accounts and securities, to the extent not covered by business property), communal property (to the extent the necessary information is available) and public property;
4. To the extent allowed by the information available, it is important to classify agricultural and other land properties categorized under the Ottoman land regime as waaqf, mulk or miri as real property. To the extent allowed by the information available, we should also classify agricultural and other land properties categorized under the Ottoman land regime as matrouk as communal property. To the extent allowed by the information available, we should classify land property categorized as mewat under the Ottoman land regime as public property;
5. Businesses property covers businesses owned by individuals (sole proprietorships) and those owned by corporate entities. In order to avoid duplication between the two types of business losses, individual shareholdings in corporate entities should not be separately valued. Business properties should be valued on the basis of their going concern value; this means that the valuation covers all assets belonging to the concern, including movable property, which therefore need not be valued separately;
6. Public property should include the Palestinian share of state-owned property; to the extent that these properties were income-generating, this should be reflected in the valuation methods used;
7. Properties located in West Bank and the Gaza Strip should be excluded from the valuation exercise, as these are not considered "refugee properties" in the Oslo framework.

It should be noted that we have not systematically followed the legal framework provided to us. For instance, we have found that the land data provided to us were not organized according to the Ottoman classification. Instead, we have used the British Mandate tax categories. In each section, we have pointed to gaps in the information provided and suggest ways to improve or complete our evaluation of property losses. Once this information is provided, we may finalize our work and thus reduce the confidence interval of our estimates.

#### 1.4. LOSS TYPES UNDER REVIEW

We have assumed that losses incurred by individuals, communities, and legal entities, including religious waqfs should be compensated. Valuations therefore include various assets including real (land and urban) and tangible property (movables) and business losses. Claims for

compensation for public property should also be included in the global estimate and are assessed herein.

One of the goal of Phase I of our work consisted in identifying all loss types as well as data and information for each of them. Our goal has been to be as comprehensive as possible but also to maintain a good audit trail for our estimation. As a result, only loss types for which we could propose a defensible valuation have been covered in the present report.

Loss types identified in our review can be summarized as follows:

TABLE 2 : LOSS TYPES CONSIDERED

Loss category	Loss type
<b>INDIVIDUAL</b>	<p><b>Urban and rural land:</b> Urban land, houses, buildings. Rural land is related to the valuation of various agricultural activities and properties (cereal growing and fruit plantations). Please note that we have also included the share of public and communal land in this report.</p>
	<p><b>Personal property - Movable assets:</b> Household and personal effects such as furniture and appliances, clothing, livestock, cars. Please note that we have included moveable financial assets in our study, including cash in hand and foreign assets.</p>
	<p><b>Bank accounts and other securities:</b> Cash accounts, safe deposit boxes, financial assets held in financial institutions, bearer bonds, shareholdings in income-generating businesses, items held abroad... We have little information to propose a thorough valuation of such loss type (As noted above, we have reviewed cash in hand and foreign assets with moveable assets).</p>
	<p><b>Loss of employment and livelihood:</b> Loss of wages or salaries of refugees, loss of livelihood as a result of the 1948 war by losing a source of direct or indirect earnings to sustain their livelihood</p>
<b>BUSINESS</b>	<p><b>Loss of income-producing property:</b> Loss of industrial and commercial capital, factories, hotels and restaurants, workshops... (food, textiles, metals and machinery, woodwork, leather, printing and paper, chemicals, stone and cement, diamonds, ...), loss of income and profits.</p>
<b>COMMUNAL</b>	<p><b>Communally-owned property:</b> Bush, grassland and land that has collective ownership, Negev land, water and mineral water. The following categories shall be distinguished as different valuation principles may be applied: Agricultural land; Non agricultural land (mostly used for grazing); and Uncultivable land/desert land. In our valuation, communal land and buildings are valued in the urban and rural land sections.</p>
<b>RELIGIOUS WAQFS</b>	<p><b>Waqfs or religious endowments:</b> Properties giving revenues, typically devoting a building or plot of land for Muslim religious or charitable purposes</p>
<b>STATE</b>	<p><b>Arab share of state-owned property:</b> This category is related to the following loss types: public properties such as roads, railways, seaports, airports, schools, clinics, hospitals, laboratories, public buildings, irrigation networks</p>

## 1.5. METHODOLOGY: FUNDAMENTAL PRINCIPLES

Our valuation methodology comprises a logical procedure to value, at the aggregate level, the wide variety of loss types mentioned above. The methodology is also design to ensure consistency of evaluation. We have combined different valuation approaches in order to compare results.

In our opinion, it is crucial that the negotiating parties must be able to determine what level of judgment (if any) has been applied in each valuation in order to fully understand the basis of recommendations made, and hence determine the appropriate range of possible values for each loss type under review. Therefore, all methodological options developed in this paper can be understood and operated efficiently and quickly by experienced negotiators who need not have prior knowledge of the methodology itself or of the loss type under review. In conducting our work, we have assumed that we should never rely on any methodology based on hidden formulae or complex computerized models that cannot be explained, because they are beyond comprehension of non-specialists.

Please note that our study is conducted in 2006-2007 and considers assets in pre-war Palestine, about 60 years ago. As a result, primary valuation evidence is sometimes no longer available, or occasionally, is not available at a 'reasonable' cost of retrieval. Accordingly, in some instances, we had to rely on valuation proxies or best-available valuation evidence.

At the general level, our methodology for arriving at a global figure meets the following criteria in being:

1. **Concise.** Is capable of being treated as a free-standing document and should be understandable to those involved in the negotiation process.
2. **Flexible.** The methodology is kept under regular review and should be amended as and when the project changes course.
3. **Simple and consistent,** rather than subtle and arbitrary, to allow easy processing, consistency and accuracy of valuation work. The methodology maximizes consistency by relying on generally-accepted valuation principles and international valuation standards.
4. **Can be audited and verified** and therefore relies, as much as possible, on reliable historical evidence in order to minimize areas of subjective judgment applied in the valuation. A robust and reliable audit trail for all figures has been developed.

For this phase of the project, all valuation options are not yet built in a management information system (MIS) so as to generate as many valuation scenarios as possible during negotiations. Our goal is to build such MIS in a subsequent phase in order to pursue the integrative path as long as possible, while explicitly safeguarding the interests of the Palestinian refugees.

## 1.6. OPERATIONAL STRUCTURE OF THE METHODOLOGY

The stages for application of the methodology have been as follows:

**STAGE 1 – INITIAL FILE AND DOCUMENT REVIEW**

The purpose of this stage is to organize the information located in the historical record and to complete preliminary reviews in a manner that facilitates the implementation of the methodology to the entire loss type under review (see above for a description of each loss type to be considered). This includes, where necessary, the reclassification of losses asserted under certain categories to more appropriate loss categories covered by the methodology. Shortcomings in documentary evidence are considered at this point.

**STAGE 2 – AUDIT SHEET REPORTING**

A standard report for each loss type is prepared at Stage 2, the “Audit Sheet”, to establish the audit trail for our work and summarize details of the documents reviewed. During each subsequent stage of the review, the Audit Sheet is expanded to record details of the review carried out and to track all key figures to be used in respect of each item of loss.

**STAGE 3 – LEVEL OF CONFIDENCE REVIEW**

It has been crucial for us to seek to obtain best evidence for arriving at the aggregate value of Palestinian losses. Whenever we have obtained information that we consider not to be best evidence, we have indicated the shortcomings in the report.

**STAGE 4 – VALUATION SUB-PROGRAMME REVIEW**

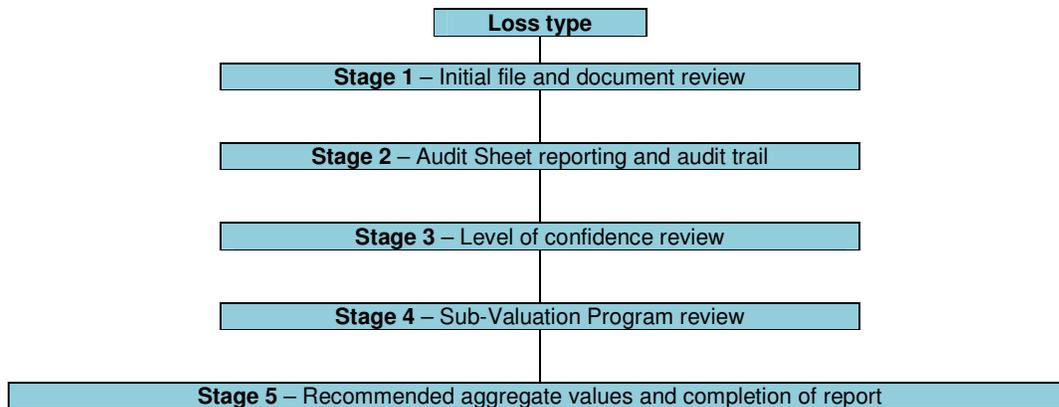
For each loss type, we have defined a specific valuation methodology.

**STAGE 5 – RECOMMENDED AGGREGATE VALUE AND COMPLETION OF REPORT**

Upon completion of the review, calculations are made according to the methodology. A final recommendation is made as to the suggested aggregate value.

This can be represented diagrammatically as follows:

FIGURE 1: LOGICAL FRAMEWORK FOR THE VALUATION METHODOLOGY



**1.7. INTERNATIONAL VALUATION STANDARDS**

As a general principle, compensation should be calculated on the basis of internationally-recognized principles of valuation. Numerous internationally accepted professional valuation standards exist (i.e. IAASB, IFAC, IVSC, IFRS, IPSAS...) and can contribute, to some extent, to the

development of high quality guidelines for valuing refugee property losses. However, given the context of the present project, we do not recommend the application of a particular set of valuation principles, especially for non-land losses, for which the market valuation basis may be difficult to apply.

We have developed a variety of analytic techniques, particularly those directed toward uncertainty and interactive decision problems, i.e. estimating Palestinian Arab movable property left behind in 1947-1948 or loss of livelihood. In all cases, we refer to scientifically sound methods of valuation, especially when it involves elements of statistics, economics and probability modeling.

## 1.8. MARKET VALUATION BASIS

The best valuation guiding principle is to propose figures which are defensible by reasoned argument and calculation. Market valuation basis is technically the best internationally recognized method, but implies determining true benchmark market evidence of land/property transfer deals struck between willing buyers and willing sellers on a given historical date. As such, the applicability of the market valuation basis depends on the availability of sufficient contemporaneous market data to allow sales comparisons.

Therefore, one of our first steps was to determine whether or not the market value of property at the time, location and condition, in which it then was, if it had such a market value, could be reasonably established from the historical records available. Generally speaking, we have not been able to access a wide range of market data. For rural and urban lands, for instance, we have been referred to the sample provided in the Kubursi assessment. However, please note that we have not been able to obtain the original market data series from Dr. Atif Kubursi, these data having been destroyed.<sup>6</sup> A Survey of Palestine disclosed construction costs and other information that has been analyzed and used for our valuation.

When market valuation cannot be used, recourse is made to some compromise conventions or valuation techniques in order to achieve measurements in situations involving significant uncertainties i.e. lack of reliable market data sets. For instance, the valuation of personal property (movable assets) cannot be done at a market value for two major reasons: (1) the scope of holdings left behind is not precisely identified; and (2) Market data for such holdings is not necessarily available. As a result, loss of personal property value has been approximated by means of standard statistical measurements.

## 1.9. LEVEL OF EVIDENCE

### (A) OUR REQUIREMENTS

Fundamental to the methodology is the basic premise that all loss types will be supported by suitable documentation. However, shortcomings in evidence in some instances inevitably lead to difficulties in accurately quantifying losses. From our investigations conducted thus far, it seems that previous estimates are not sufficient, taken individually, to recommend a precise and

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<sup>6</sup> See Sami Hadawi and Atif Kubursi, *Palestinian Rights and Losses in 1948* [1988].

comprehensive global figure for refugee property losses. Typically, in such circumstances, such shortcomings mean that sufficient evidence needs to be researched or produced so as to establish the extent of a loss.

(B) THE HISTORICAL RECORDS: A LEGITIMATE SOURCE OF INFORMATION

Some historic information and archive records have been made available to us. Most of our work has been based on the following historical records (a complete bibliography is placed in the Annex):

- Michael R. Fischbach, *Records of Dispossession*, 2003 (Overview of the refugee issue)
- Michael R. Fischbach, “The Usefulness of the UNCCP Archives for Palestinian Refugee Compensation/Restitution Claims”, 2003 (Overview of contents of UNCCP archives)
- Whalid Khalidi, *All That Remains*, 1992 (Assessment of the scope of rural land and abandoned villages following the 1948 war. Includes data on public land and built-up areas)
- Atif Kubursi, “Valuing Palestinian Losses in Today's Dollars”
- P. J. Loftus, *National Income of Palestine in 1944*, 1946 (Detailed description of aggregate figure of national output in pre war Palestine)
- Benny Morris, *The Birth of the Palestinian Refugee Problem Revisited*, 2004 (Appendix One contains a detailed analysis concerning the number of refugees)
- *A Survey of Palestine*, Vol. 1 and 2 + Supplement, 1991 (Detailed statistics about the type and scope of assets in pre war Palestine). It should be pointed out that this study has been fundamental for our work. Not only it provides a detailed analysis of the ownership of capital in pre war Palestine but it is also a reliable and independent source of information. This study was prepared for the Anglo-American Committee of Inquiry in 1946 when Prime Minister Clement Atlee and President Harry Truman dispatched their envoys in Palestine.
- Salim Tamari and Elia Zureik, *Reinterpreting the Historical Record, Uses of Palestinian Refugee Archives for Social Science Research and Policy Analysis*, 2001 (A thorough overview of the available historical records)
- *Village Statistics 1945*, The Research Centre (Detailed analysis of ownership of the land)
- S. Abu Sitta, *Atlas of Palestine 1948*, 2004 (Very important source of information: population data at mid 1948, Jewish holdings at different points in time, public land data, Beersheba land and population data, infrastructure and public amenities, religious facilities, scope of land data)
- “Sanctity Denied”, Arab Association for Human Rights (Scope of destruction of Arab and Christian holy places)
- Salim Tamari and Elia Zureik, *Reinterpreting the Historical Record, Uses of Palestinian Refugee Archives for Social Science Research and Policy Analysis*, 2001 (A thorough overview of the available historical records)

- UNCCP Studies for estimating losses (Global estimate and Technical Program)
- Elia Zureik, *Palestinian Refugees and the Peace Process*, 1996 (Population data and socio economic data for refugees on a country basis)

(c) PAST VALUATION WORK

We have to acknowledge that the scope of historical losses following the 1948 war has already been addressed by different persons and organizations. In an early phase of our work, we reviewed six past estimates, our analysis being structured around two central questions:

- (1) What strategic information from past estimates is most useful for understanding the full extent of losses and, when information gaps do exist, is it possible to propose remedial actions from the available historical record?
- (2) What practical methodological approaches presented in past estimates have the greatest potential for developing an adjusted methodology for valuing property losses at a global level and for sustaining a fair and objective compromise at negotiations?

As background information, we provide key findings from our review of Phase I of our work. First we provide a summary of the total figures (Table 3). Please note that the different past valuation models lead to a wide range of global values: from US\$485 million for the lowest estimate to US\$3.05 billion for the highest. Second we provide a table summarizing our qualitative review of the six estimates (Table 4).

TABLE 3: ESTIMATES FROM DIFFERENT HISTORICAL STUDIES

<i>£ = Palestinian Pounds and \$ = US Dollars</i>	<b>ESTIMATE 1: UNCCP GLOBAL ESTIMATE (BERNCASTLE)</b>	<b>ESTIMATE 2: UNCCP TECHNICAL PROGRAMME (JARVIS)</b>	<b>ESTIMATE 3: JOHNSON PLAN</b>	<b>ESTIMATE 4: YUSIF SAYIGH</b>	<b>ESTIMATE 5: ATIF KUBURSI</b>	<b>ESTIMATE 6: FRANK LEWIS</b>
	<b>1951</b>	<b>1952-1964</b>	<b>1961</b>	<b>1966</b>	<b>1988</b>	<b>1996</b>
<b>Loss categories</b>						
<b>Rural and urban lands &amp; property</b>	£100 383 784	£204 660 250	£195 600 000	£403 400 000	£528 859 000	£162 695 700
<b>Publicly-owned property</b>	£0	£0	£0	£0	£12 100 000	£0
<b>Communal property</b>	£0	£56 000 000	£20 000 000	£0	£0	£0
<b>Movable assets (equipment, stock, vehicles...)</b>	£20 000 000	£19 125 000	£30 000 000	£107 500 000	£117 452 000	£43 200 000
<b>Lost opportunities, loss of profits &amp; financial assets</b>	£0	£0	£0	£5 000 000	£12 500 000	£0
<b>Human rights violation</b>	£0	£0	£0	£0	£0	£0
<b>Costs of repatriation and resettlement</b>	£0	£0	£87 000 000	£0	£0	£0
<b>Other(s) (See details in matrix):</b>	£0	£0	£1 428 571	£240 800 000	£72 150 000	£0
<b>Aggregate estimated loss value in 1948 (P£)</b>	<b>£120 383 784</b>	<b>£279 785 250</b>	<b>£334 028 571</b>	<b>£756 700 000</b>	<b>£743 061 000</b>	<b>£205 895 700</b>
<b>Converted value in 1948 US\$ (4.03 \$/P£)</b>	<b>\$485 146 650</b>	<b>\$1 127 534 558</b>	<b>\$1 346 135 143</b>	<b>\$3 049 501 000</b>	<b>\$2 994 535 830</b>	<b>\$829 759 671</b>

Source: Thierry Senechal (Report entitled: Phase 1 – Review of Past Estimates, 25 November 2004)

TABLE 4: SUMMARY OF PAST ESTIMATES FINDINGS

	<b>ESTIMATE 1: UNCCP GLOBAL ESTIMATE (BERNCASTLE), 1951</b>	<b>ESTIMATE 2: UNCCP TECHNICAL PROGRAM (JARVIS), 1952-1964</b>	<b>ESTIMATE 3: JOHNSON PLAN, 1962</b>	<b>ESTIMATE 4: YUSIF SAYIGH, 1966</b>	<b>ESTIMATE 5: ATIF KUBURSI, 1988</b>	<b>ESTIMATE 6: FRANK LEWIS, 1996</b>
<b>Strategy envisaged:</b>	Assess a global figure for refugees' property left behind (land and movable property only)	Thorough identification to determine exact amount of all Arab and non-Arab holdings/ property as of 14 May 1948	Propose a resettlement and repatriation plan based on previous UNCCP work	Comprehensive valuation attempt for refugee land and buildings, movable assets, capital goods, etc.	Comprehensive attempt to estimate the national wealth of Palestine	Valuation of agricultural abandoned property by analysis of agricultural productivity and output
<b>Overview of the valuation methodology:</b>	Based on capitalization of urban (N.A.V.) and rural property tax assessments, suitably adjusted to allow for increase in value between date of assessment and 29 November 1947	Valuation is based on capitalization of tax assessments. Capital values obtained from 1°) the N.A.V. assessed for urban property tax and 2°) tax categories of land in rural areas	Building up on the Technical Office's estimate (Jarvis) and adding new components for communal property and other reintegration costs/allowance	This study contains a significant amount of economic analysis. However, it does not provide the details of the methodology for conducting a global assessment of Arab losses in Palestine	The valuation is essentially based on economics and income stream capitalization principles. 1946-1947 values are inflation adjusted to 1948 values. Non land losses are valued under a mix of different approaches	Approach is based on valuation of agricultural output by considering issues of land ownership, productivity and capitalization of income stream
<b>Loss types included in the valuation:</b>	Arab-held land in general and movable left behind	Various types of immovable property (Arab and non Arab, individually-owned, waqf land, musha land, municipal land...). Movable property is also included as well as an off-record estimate of communal land	Arab-held land in general, movable property, loss of interest on refugees' property, communal property, reintegration allowance and administrative costs	Refugee land including built-up in rural and urban settings, movable assets, capital goods and other financial assets, refugee buildings	Rural, urban land , industrial capital, agricultural capital, commercial and private vehicles, commercial capital and stocks, financial assets, private and personal assets, state-owned infrastructure, natural resources, water, and forestry	Selected land only (crop-based)
<b>Source of information used:</b>	Mostly Village Statistics 1945 (to be obtained) but also tax records and expert opinion	Individual identification is done mainly from registers of title and tax records but also other public documents	Same as for the Technical Program for immovable property but the source of information is uncertain for other loss items	Rely on a few studies (including UNRWA data, Village Statistics 1945). In many case, the source of data is not mentioned	Rely on various national income & consumer studies as well as the Survey of Palestine. UN data are used for real property	Village Statistics 1945 (classification of land by use, quality, and ownership) and other reference documents
<b>Reliability of the audit trail:</b>	Underlying figures are not disclosed for land. Calculation basis is explained for movables (data to be checked)	Critical underlying information is missing to understand fully the source of some values (sales values, N.A.V. multipliers...)	Very weak for non immovable property (figures are rather arbitrary in many cases)	The audit trail is very poor and the methodology is not explained and supported by clear references to source documents	Disclosure of methodologies is made but the underlying figures would need to be checked and assessed	Clear references to source documents are made throughout the study

	<b>ESTIMATE 1: UNCCP GLOBAL ESTIMATE (BERNCastle), 1951</b>	<b>ESTIMATE 2: UNCCP TECHNICAL PROGRAM (JARVIS), 1952-1964</b>	<b>ESTIMATE 3: JOHNSON PLAN, 1962</b>	<b>ESTIMATE 4: YUSIF SAYIGH, 1966</b>	<b>ESTIMATE 5: ATIF KUBURSI, 1988</b>	<b>ESTIMATE 6: FRANK LEWIS, 1996</b>
<b>Description of the strengths:</b>	<ul style="list-style-type: none"> <li>- Definition is provided for what constitute abandoned Palestinian refugee land</li> <li>- Discuss various valuation methods for abandoned land</li> </ul>	<ul style="list-style-type: none"> <li>- Rigorous identification work carried out (scope and value of refugee property)</li> <li>- Consider critical issues: valuation of buildings in rural areas (built-on areas), gardens and fringe areas, land in Beersheba district</li> <li>- Deduction is made for property owned by Arabs still residing in Israel after the war</li> </ul>	<ul style="list-style-type: none"> <li>- Attempt to quantify communal property (but basis is unclear)</li> <li>- Propose a per capita resettlement allowance (issue needs further exploration)</li> </ul>	<ul style="list-style-type: none"> <li>- Exhaustive estimate of the sum of Palestinian's community losses (excluding psychological damage and missed opportunities)</li> <li>- Consider the scope and value of potentially arable land as well as the value of public institutions (Mosques, factories, hotels, plantation buildings...)</li> </ul>	<ul style="list-style-type: none"> <li>- By far the most complete and comprehensive study of refugees' losses</li> <li>- Special care is exercised to distinguish 1°) the Arab share of the national wealth, excluding the Jews and 2°) the share of refugees from the Arab population of Palestine</li> </ul>	<ul style="list-style-type: none"> <li>- Introduce the concept of optimal utility and Arab land productivity</li> <li>- Distinguish Palestinian and Jewish land on quality grounds</li> <li>- Account for land retained by Arabs and for Jewish purchases of Arab land from 1945 to mid-1947</li> </ul>
<b>Description of the weaknesses:</b>	<ul style="list-style-type: none"> <li>- Fall short of computing the full range of losses (Communal/collectively owned land, financial assets... not taken into account)</li> <li>- No thorough inspection of abandoned land have been conducted</li> <li>- Land counted as abandoned refugee land can only be approximate without proper and detailed identification</li> <li>- Rely too heavily on tax assessments rather than actual sales/market values</li> </ul>	<ul style="list-style-type: none"> <li>- Identification is weak for non Arab land, communal and common ownership, public and uncultivable</li> <li>- Market value is difficult to obtain from sale values. Tax assessments do not necessarily reflect fair market values</li> <li>- Treatment of land in Southern regions is problematic. The source of data for uncultivable land is imprecise and most of the land was omitted from the valuation</li> </ul>	<ul style="list-style-type: none"> <li>- Absence of hard data to substantiate the estimated values for communal property and other reintegration costs/allowance</li> <li>- The method used for the loss of interest adjustment is not correct</li> <li>- The adjustment for the depreciation in the value of money is unfounded and the method used is again questionable (normal compounding should be used)</li> </ul>	<ul style="list-style-type: none"> <li>- Not based on a detailed and thorough enumeration of Arab holdings</li> <li>- No distinction between the productive and non productive capital</li> <li>- No distinction in quality and use of assets (i.e. buildings and dwellings)</li> <li>- To be completed once the full study is made available</li> </ul>	<ul style="list-style-type: none"> <li>- The principle for separating the relative shares of the two broad groups of population, Arabs and Jews, is quite approximate</li> <li>- The methodology to value land is not clear from the study. It is crucial to know the origin of raw data</li> <li>- The capitalization method based on a perpetuity formula over an infinite period of time is not appropriate. Normal compounding for future value is preferable</li> </ul>	<ul style="list-style-type: none"> <li>- Very limited in scope and confined to agricultural land</li> <li>- Although a capitalization of income stream is provided, the methodology to reach and apply the capitalization factors is questionable</li> </ul>

	<b>ESTIMATE 1: UNCCP GLOBAL ESTIMATE (BERNCASTLE), 1951</b>	<b>ESTIMATE 2: UNCCP TECHNICAL PROGRAM (JARVIS), 1952-1964</b>	<b>ESTIMATE 3: JOHNSON PLAN, 1962</b>	<b>ESTIMATE 4: YUSIF SAYIGH, 1966</b>	<b>ESTIMATE 5: ATIF KUBURSI, 1988</b>	<b>ESTIMATE 6: FRANK LEWIS, 1996</b>
<b>Implication of perceived risk (Threats):</b>	<ul style="list-style-type: none"> <li>- Assessment is generally accepted to be understated. Objectivity of the proposed estimate is questionable</li> <li>- Issue of land in the Southern region of Beersheba has to be addressed</li> </ul>		The Johnson Plan allows for refugees to choose compensation or repatriation (limits and methods have to be agreed)	<ul style="list-style-type: none"> <li>- The methodology is not justified and the audit trail of data is very weak</li> <li>- The capital-output ratio is arbitrarily defined</li> <li>- The distinction between productive and non-productive capital is too difficult to make</li> </ul>	Some of the methods (weighted averages for rural land) seems to be robust and scientifically sound but are probably complex to use and duplicate	The methodology cannot be generalized and standardized for non agricultural losses
<b>Opportunities for developing new estimate:</b>	Provide an approach for movable property that can be further investigated	R/P Forms could be used as a basis for verifying individual claims to ownership in an adjusted methodology	None at this stage	None	None from the identification point of view. However, opportunities do exist to integrate non land data in an adjusted methodology for producing a global figure	This is an example of an income capitalization approach that can be discussed
<b>Overall opinion:</b>	Approach is too global for being used to value individual claims. Assessments of net annual value are largely theoretical, bearing little relation to 1947/1948 true market values	Very valuable identification work for Arab property. We suggest to use this study for developing an adjusted methodology for real property losses (both land and rural lands)	The Johnson Plan does not introduce new methods for land valuation. It introduces new concepts (i.e. for resettlement-repatriation costs) but fails to provide support for the underlying figures	The approach is comprehensive but the method is not supported and therefore cannot be used at negotiation	By far, the most comprehensive study of refugees' property losses. We suggest using some methods of this study to develop an adjusted methodology to arrive at a global figure for non land losses	Although the approach accounts for productivity change in output for various land categories, it is not appropriate for valuing abandoned agricultural land (range of capitalized prices for land is too wide)

Source: Thierry Senechal, Report entitled: Phase 1 – Review of Past Estimates, 25 November 2004

From our review of the six estimates, we had concluded that we could refer to two studies in order to develop an adjusted methodology to produce a global figure of Palestinian refugees losses:

1. UNCCP Technical Program: The identification work done by the UNCCP Technical Office can serve as a basis to develop an adjusted methodology for arriving at a global figure for the scope of land to be included in our study. However, a specific line of further enquiry concerns the reliability of information used for valuation of property at fair market value.
2. Kubursi assessment: This study can serve as a starting point for estimating non land losses which is indeed a challenge for determining their scope and value, especially for movable assets, business losses and state-owned property.

#### (D) BEST EVIDENCE VERSUS SECONDARY EVIDENCE

It should be noted that the risk of overstatement decreases as the quantity and quality of evidence submitted rises. We have decided that the methodology should therefore balance the inability to always provide “primary” or “best” evidence against the risk of overstatement or understatement introduced by shortcomings in evidence. In the following table, we show the type of evidence that would be expected in a contemporaneous context (Noted in the red color is the evidence available to us at this stage of our review). However, we cannot expect such level of evidence in our case, the losses dating back to some 60 years.

As mentioned earlier, we are satisfied with the information collected from the historical record. A great amount of time and resources has been dedicated to the collection of historical data. Today, we believe that we have gathered a unique set of raw data. The reliability and accuracy of the data have been constantly tested during our valuation. In case of uncertainty, we have reported the gaps in the information and, sometimes, proposed remedial actions to be undertaken to complete the data.

Valuation of refugee lost property will inevitably involve a degree of speculation or uncertainty due to the absence of reliable data in some instances, i.e. real market data for property. Because our valuation work needs to be supported by reasonable levels of evidence or information, the confidence level is higher as more evidence is discovered. This is why our methodology is designed to evolve with the continued review of additional documents and files as they become available. When we encounter new issues, these are highlighted for the NSU’s attention with a suggested approach for dealing with the issues. If necessary, the methodology can be amended to incorporate the NSU’s determination on the manner in which such issues should be resolved.

TABLE 5: LEVEL OF EVIDENCE

Evidence level	Area	Existence	Ownership	Value
Circumstantial (sufficient to draw strong inference)	<i>ASSET</i>	<ul style="list-style-type: none"> <li>Original construction invoices</li> <li>Building permit</li> <li>Accounts</li> <li>Insurance records</li> <li>Mortgage documents</li> <li><b>Survey report</b></li> <li><b>Photographs</b></li> </ul>	<ul style="list-style-type: none"> <li>Original construction invoices</li> <li>Building permit</li> <li>Management or publicly lodged accounts</li> <li>Insurance records</li> <li>Mortgage documents</li> </ul>	<ul style="list-style-type: none"> <li>Sales invoices</li> <li>Insurance records</li> <li>Supplier's invoices</li> <li><b>Photographs</b></li> <li>Construction cost records</li> <li><b>Third party estimates</b></li> </ul>
	<i>Damage</i>	<ul style="list-style-type: none"> <li>Photographs</li> <li>Survey report/schedule of damage</li> <li>Independent witness statement</li> </ul>		<ul style="list-style-type: none"> <li>Builder's repair estimate</li> </ul>
Sufficient evidence to verify and value claim with reasonable certainty		<ul style="list-style-type: none"> <li>Original invoices and/or contracts</li> <li><b>Tax records</b></li> <li><b>Deed/lease/license /title document</b></li> <li>Repair invoice</li> <li>Independent survey report</li> <li>Audited accounts</li> </ul>	<ul style="list-style-type: none"> <li>Repair invoice</li> <li><b>Tax records</b></li> <li><b>Deed/lease/licens e/title document</b></li> <li>Audited accounts</li> </ul>	<ul style="list-style-type: none"> <li>Repair invoice and payment records</li> <li><b>Tax records</b></li> <li>Independent surveyor's report</li> <li>Independent valuer's report</li> <li>Multiple contract tenders</li> <li>Audited accounts</li> </ul>

Source: Thierry Senechal / UNCC "E4" Methodology

(E) AUDIT TRAIL OF EVIDENCE

As noted above, we have reviewed many different loss types, each one having its own methods and evidence. To conduct our valuation we have developed different models, involving a different level of complexity and each presuming a different level of comprehension about the processes one is trying to model.

Therefore, a standard check list table has been prepared for each valuation programs, the "Audit Sheet", in order to establish the audit trail for our work. This document summarizes details of documents reviewed. During each subsequent stage of the review, the Audit Sheet has been expanded to record details of the review carried out and to track key figures used in respect of each item of loss.

## SECTION 2 – NATIONAL WEALTH OF PALESTINE IN 1948 UNDER THE INCOME APPROACH

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### 2.1. OBJECTIVES AND BACKGROUND

#### (A) ELEMENTS OF MEASURES

Before starting to collect evidence for each loss types, we have sought to determine the extent of wealth in Palestine in the pre-war period. It is important for us to keep in mind that the Palestinian losses must be apportioned to the national wealth of Palestine at the time of the war. In the following pages, we review the socio-economic background of pre war Palestine and provide an analysis of the existing wealth as of 1948.

A few points should be made clear. First, the aggregates values provided in the Loftus study do not represent the share of the Arab population or Palestinian refugees. Second, the national income figure should be used with caution for estimating the loss of wealth resulting from the 1948 war. The national income approach is similar to a 'profit and loss' figure as calculated in modern accounting. A profit and loss account is a financial statement showing the net profit or loss of the employment for a period of time, usually one year. It shows the gross profit of the business less the total costs incurred during the period of the account. The national income approach is similar but it aggregates national data to produce an estimation of the wealth of the country for a one year period.

#### (B) ELEMENTS OF MEASURES OF NATIONAL INCOME

Our indicator for the wealth of Palestine in 1948 is the national income and output. Measures of national income and output are used in economics to estimate the value of goods and services produced in an economy. In doing so, it becomes possible to determine the global wealth of a country by adding revenues and subtracting expenses. Most countries use a system of national accounts or national accounting developed during the 1900s. Some of the more common measures are Gross National Product (GNP), Gross Domestic Product (GDP), Gross National Income (GNI), Net National Product (NNP), and Net National Income (NNI).

There are various ways of calculating these numbers. For instance, the expenditure approach determines aggregate demand, or Gross National Expenditure, by summing consumption, investment, government expenditure and net exports. The income and output approach sum wages, rents, interest, profits, non income charges, and net foreign factor income earned. The

two methods must yield the same result because total expenditures on goods and services must by definition equal the value of goods and services produced (GNP) which must equal total income paid to the factors that produced the goods and services (GNI).

In fact, minor differences are obtained from the various methods due to changes in inventory levels. This is because goods in inventory have been produced (and therefore included in GDP), but not yet sold (and therefore not yet included in GNE). Similar timing issues can also cause a slight discrepancy between the value of goods produced (GDP) and the payments to the factors that produced the goods, particularly if inputs are purchased on credit.

#### (C) NATIONAL INCOME OF PALESTINE BY LOFTUS

In our case, we have been fortunate to have obtained a very detailed description of the income and output approach for pre war Palestine. In his study entitled *National Income of Palestine in 1944*, P. J. Loftus, provides a detailed description of aggregate figure of national output in pre war Palestine. Estimates of the national income were compiled by the Department of Statistics from 1938 to September 1945. Some of the estimates were published for the years 1939, 1942 and 1943 in the General Monthly Bulletin of Current Statistics in August 1944.

#### (D) RELIABILITY OF THE ESTIMATES

For the present report, the national income is defined as the annual value of the goods and services produced by the inhabitants of Palestine. As pointed out in the introduction of the Loftus' study, some assumptions have to be made for calculating elements of national income, leading to an arbitrary meaning of some measures.

Indeed, estimating the national income components for a short period of time (one year in our case) presents special problems. For instance, in an economy which is not developed and modern, it is not always possible to match the volume of production with the cost incurred in that production, simply because the data are not always available. The Loftus study does not explain the recording of transaction has been carried and adjusted to seasonal factors. If the recording of a transaction is delayed or not available for a certain period, adjusted movements are distorted. All these problems affect the accuracy of the current price and chain volume estimates and should be taken into account in interpreting the estimates. However, we do not have enough information on this matter.

With these words of caution in mind, let's turn to our analysis of the national income of Palestine before the war.

## 2.2. THE ECONOMY: KEY DRIVERS

### (A) BASIS DATA: THE SOCIO ECONOMIC SITUATION BEFORE 1948

Palestine is a country of marked contrasts in the pre war period. As described by the Anglo-American Committee of inquiry in its Report to the United States Government and His Majesty's Government in the United Kingdom (April 20, 1946), the economic contrasts are explained as

follows: "On the Arab side, notwithstanding some development in co-operation and trade unionism, individualism is still characteristic. In agriculture small-scale peasant farming, still largely on the subsistence principle, remains predominant; and the many signs now visible of enterprise and expansion in Arab industry conform to the same pattern of strong individualism.

In the Jewish economy, on the other hand, is to be found a nexus of centralized control. Thus the Jewish Agency, besides being a landowner on a large scale, is a promoter and financier of agricultural settlement, and has large and varied participations in industrial and other enterprises. Histadruth, which is closely associated with the Agency, is by no means simply a federation of workers' unions. It is, in addition, a vast consumers' co-operative organization; it operates large contributory social services, including unemployment insurance, and it has latterly become a capitalist employer, being the sole or controlling owner of a wide and ever increasing range of industrial, nonstructural, financial and service undertakings" (Chapter IV).

The two economies rarely interact. Only in citriculture which before the war provided the staple export of Palestine, do we find association between the two economies. It is shared about equally between the two communities, and many Jewish citrus groves employ some irregular Arab labor. The contrasts are also evident in terms of disparity between the standards of living of the Arab and Jewish communities. Jewish wage rates are consistently higher than Arab, those for unskilled labor being more than twice as high. There is only a limited range of competition between them; and therefore a minimum of natural pressure towards equalization. Habits of consumption, the degree of reliance on the market, whether for supplies or income, housing standards and so forth, differ widely, and in general the social services available to the Arab are extremely limited.

As mentioned in the Report by the Anglo-American Committee of inquiry, the war had another distorting effect, which sprang from financial transactions. Vast military expenditure in Palestine for both goods and civilian services, along with shortage of shipping and potential inward cargoes, brought about stringency in supplies and in labor. This resulted in rising prices, rising wage rates and still more rapidly rising earnings, large profits and a rapid growth of money-wealth (including bank deposits and hoarded currency). However, the closing of the Mediterranean to Allied shipping cut Palestine off from the chief market for the citrus fruits and the chief source of her imported supplies. As a result, the Palestinian economy based on agriculture started to deteriorate and, at the same time, the Jewish economy saw the development of the variety of manufactures related to the war effort. As a result of World War II, the Jewish sector of the economy became increasingly urban and industrial, while the Arab sector remained overwhelmingly agricultural.

The situation in Palestine at the end of WW II is also well documented in an article written in 1945 by Milton Steinberg: *The Creed of an American Zionist*, *The Atlantic Monthly* (February 1945). The following is quoted from that article. "What has been the effect of Jewish immigration and achievement on Palestinian Arabs? Whereas in near-by Muslim lands populations have remained static, in Palestine Arab numbers have soared from 664,000 in 1918 to over a million at present. This increase has been due in part to the better living conditions, to the modern hygiene, and to the advanced agriculture Jews have introduced. But in addition Arabs by the thousands have been immigrating into Palestine from all Near Eastern countries. Jewish enterprise has made the land one of promise for them as well as for Jews. Further, the

value of Arab industry in Palestine quadrupled between 1922 and 1937, the area of land under cultivation increased by over 50 per cent.”

It is also important to account for the population drivers in pre war Palestine. According to official estimates,<sup>7</sup> the population of Palestine grew from 750,000 at the census of 1922 to 1,765,000 at the end of 1944. In this period the Jewish part of the population rose from 84,000 to 554,000 and from 13 to 31 percent of the whole. Three-fourths of this expansion of the Jewish community was accounted for by immigration. Meanwhile the Arabs, though their proportion of the total population was falling, had increased by an even greater number-(the Moslems alone from 589,000 to 1,061,000). Of this Muslim growth by 472,000, only 19,000 was accounted for by immigration. The expansion of the Arab community by natural increase has been in fact one of the most striking features of Palestine's social history under the Mandate.

#### (B) NATIONAL INCOME INDICATORS

##### **National output:**

The Palestinian economy which Israel usurped was a viable economy with a significant flow of output and income that, in 1948, sustained a growing population of approximately 2 million people. A very large part of this population was engaged in agricultural activities, whether at subsistence level or at a larger scale, and an important part of the Gross National Product was derived from agriculture.

In the summary of National Output in 1944, you can find three major categories: Agriculture, Manufacturing, and Commerce. For the manufacturing sector, the total net output was estimated at £P 28,233,000 million. Agriculture is estimated at about the same level (£P28,237,000) and commerce is £P19,700,000. The following table summarizes the key economic indicators of output:

TABLE 6: SUMMARY OF NATIONAL OUTPUT IN 1944

Sector	Output in 1944 (£P '000)
Agriculture and livestock	28,237
Fisheries	850
Forests	400
Manufacturing and handicrafts	28,233
Housing	6,149
Building and construction	5,635
War department civilian employment	3,914
Palestinian troops	2,270
Transport and communications	8,247
Commerce and finance	19,700
Government and local authorities	7,501
Hotels, restaurants and cafes	3,069
Domestic and other services	6,831
Overseas income	2,000
<b>Total National Output</b>	<b>123,036</b>

Source: National Income of Palestine 1944, Loftus, p. 15.

<sup>7</sup> Anglo-American Committee of Inquiry, Chapter IV

As a result, we can see that the national output for the year 1944 amounted to £P123 million. Loftus also mentioned that the corresponding figure for 1939 was £P30 million. There is a sharp increase in the value of the national income and this is partly due to inflationary pressure and population increase in the war and post war period.

**Foreign trade:**

By taking a closer look at the evolution of foreign trade involving Palestine, we are better able to understand the evolution of its economy. In 1922, the value of all imports was £P 5.7 million ("m"), while exports only totaled £P 1.4m. By 1944, exports had grown to £P 14.6m (although it has to be said, a significant trade balance deficit remained).

Changes in the economy can also be measured by the nature of products imported. In 1939, manufactured products made up almost two thirds of all imports. By 1944 however, this proportion was down to only one fifth. During the same period, imports of manufactured products grew only so slightly while exports were more than quadrupled (from £P 1.5m to £P 7.3m). By 1944, the foreign trade balance showed a deficit of under £P 1m (£P 0.7m). Clearly this reflected the progress of the industrial sector.

Finally, the war years between 1939 and 1944 showed an increasingly independent economy: whereas in 1939 almost half of Palestine's imports were sourced from Great Britain, this had fallen to only one-sixth by 1944. Almost 60 percent of Palestine's exports were destined to other Middle Eastern countries in 1944 (and by comparison, only 14 percent to Great Britain). This shows an increasingly diverse and self-sustainable economy that was involved with its neighboring Arab countries.

**World War II related development:**

As we have seen, the economy of Palestine still relied heavily on Great Britain at the outbreak of World War II in 1939. At this point, the economy was still mainly focused on agriculture and the impact of Jewish immigration (as seen above) had yet to make itself felt. By June 1940, Great Britain was directing all its resources towards the war effort. Furthermore, German submarines made the passage of commercial shipping in the Mediterranean Sea a very risky endeavor.

The combination of these supply-side factors had an incredibly positive effect on Palestine's economy, forcing it to provide for its own needs. As industrial capacity developed, the British military forces relied on Palestine for some of its needs. The dual needs to supply domestic civilian demand as well as large military orders were decisive in developing a strong industry. As described above, these effects are easily measured by the dependency of Palestine on imports for manufactured goods: by 1944, the balance of trade for these goods was almost even.

The effects lasted well after WWII in part because there was never any actual fighting on Palestinian soil. Strategically, Palestine became the centre of production and exportation of many petroleum-related products. These came to represent about one-third of Palestine's exported manufactured goods.

**Key industries:**

Before presenting our evaluation findings, we shall now examine the key industries in Palestine at the relevant time:

- Textiles: Overall, this was a competitive industry with significant exports. Military demand was significant during WWII. Ownership in this sector was predominantly Jewish, with the exception of weaving businesses where 20% of production came from Arab factories.
- Metal: 94% of all goods in this sector were produced in Jewish factories. This sector included foundries, sheet metalwork and machining among others. This is a sector that grew rapidly during WWII, but had to readapt shortly thereafter.
- Chemicals: Included in this sector is the production of soap, toothpaste, cosmetics, pharmaceuticals, paints, inks, disinfectants and insecticides among others.
- Diamonds: The diamond industry did not exist in Palestine prior to Jewish immigration. This industry appeared shortly after the Nazi invasion of The Netherlands and Belgium; Rotterdam and Antwerp being the traditional diamond cutting and trading capitals. The wave of Jewish immigration brought skilled diamond cutters and their specialist tools.
- Leather Goods: Considered a lower quality good, Palestinian tanneries were equally represented between Arabs and Jews. There was a market for high quality goods, such as purses, wallets and briefcases.
- Construction: A significant increase was seen, mainly due to the arrival of immigrants. During WWII however, construction of houses was put on hold by political choice. However, this industry benefited from the British military authorities subcontracting out of much of their necessary construction work.

### (c) OWNERSHIP OF THE LAND<sup>8</sup>

Despite the contention of many that Palestine was a land without people, Palestinian land was not uninhabited nor was it readily available in 1948. In fact Palestine was densely populated and intensively cultivated. Moreover, the land tenure and ownership system was complex. Available land was expensive and became more so with the rising demand of a population growing as a result of both natural increase in-migration under the British Mandate and until 1948.

While Jews in 1922 owned 3 percent of the land of Palestine, the additional land purchased by 1947 raised the total owned by the immigrant Jews to 7 percent of the whole area of the country (See Map 1 below).

The British Mandate government classified Palestinian land as good, medium, and poor. After the general armistice of the 1948 war, Israel had captured over 77 percent of Palestine and more than 95 percent of the “good” soil.

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<sup>8</sup> Samih K. Farsoun with Christina Zacharia, *Palestine and the Palestinians*, Westview Press, 1997, pp. 72-86.

MAP 1: JEWISH LAND OWNERSHIP IN 1947



The Jewish population was concentrated in settlement areas in 1947. The borders were drawn to encompass them, placing most of the Jewish population in the Jewish state. (Map reflects Jewish owned land not the size and number of settlements. It does not imply that only Jews lived here or that all other land was owned or exclusively populated by Arabs.)

In the pre war years, it is evident that the immigration of Jews to Palestine played a major role in the development of the economy overall, and particularly to the industrial sector. During the early years of World War II, as Nazi Germany occupied continental Europe, the flow of Jewish immigrants to Palestine steadily increased. Within a period of only three years (1939 to 1942), the number of Jewish people engaged in non-agricultural related activities in Palestine increased nearly threefold and this number does not even take into account small workshops and

handicrafts. Not only did Palestine's economy benefit from this new wave of labor (including skilled labor), but from its experience in entrepreneurship and perhaps most of all, from the capital this wave of immigrants brought.

Between 1933 and 1944, almost £P20m was invested in Palestine's industry by Jews. Many new sectors appeared (the diamond and metal industries, for example). It is interesting to note that the value of exported manufactured goods corresponds quite evenly with this influx of capital: exports became significant as from 1934. Finally, it is no surprise to find that Jews were mainly involved in the industrial sector, while the Palestinian-Arabs remained predominantly in agriculture.

### 2.3. PALESTINIAN SHARE OF NATIONAL INCOME

In this part, we have been concerned with the value of the net output of each of the different categories of production mentioned in Table 6 into which the economy can be divided. Indeed, the standards by which the wealth or poverty of a country is measured should, where possible, include appraisal of the degree of concentration of wealth.

The aggregate net output, considered from the point of view of those who partake in the productive process as owners of factors of production, is identifiable with the aggregate income of those factors of production. In these countries in which adequate details of incomes are available, estimates of national income or output are calculated principally from the standpoint of income receivers.

As pointed out by Loftus (p. 23 of National Income of Palestine in 1944), details of incomes are not sufficient for Palestine to form the precise basis of national income estimates in the conventional way, i.e. by distinguishing wages, rent, investment, savings, etc.

This is why Loftus has decided to make a distinction between the various population categories of income receivers based on large sums of income. Loftus provides a distinction of the different economies existing in pre war Palestine. He argues that Palestine in 1944 contains two distinct economies, the distribution of incomes in the Arab economy being radically different from that in the Jewish economy. Branches of economic activities called by the same name have yet such profound differences as between the two communities that it is necessary to carry the distinction between the population groups. Loftus concludes that it is possible to identify the Jewish share but it is not possible to split the residue between the Arabs and other non-Jews.<sup>9</sup>

In the following table, we distinguish between Jews and lumps together the remainder of the population.

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<sup>9</sup> Loftus, National Income of Palestine, p. 25.

TABLE 7: SHARE OF NATIONAL INCOME

Sector	Total in £P Million	Share of Arabs	Share of Jews
Agriculture and livestock, fisheries and forests	29.5	20.4	9.1
Manufacturing and handicrafts	28.2	3.3	24.9
Housing	6.1	2.9	3.2
Building and construction	5.6	2.9	2.7
War department civilian employment	3.9	2.7	1.2
Palestinian troops	2.3	0.2	2.1
Transport and communications	8.3	3.5	4.8
Commerce and finance	19.7	5.9	13.8
Government and local authorities	7.5	4.8	2.7
Hotels, restaurants and cafes	3.1	1.0	2.1
Other	8.8	2.0	6.8
<b>Total National Output</b>	<b>123</b>	<b>49.6</b>	<b>73.4</b>

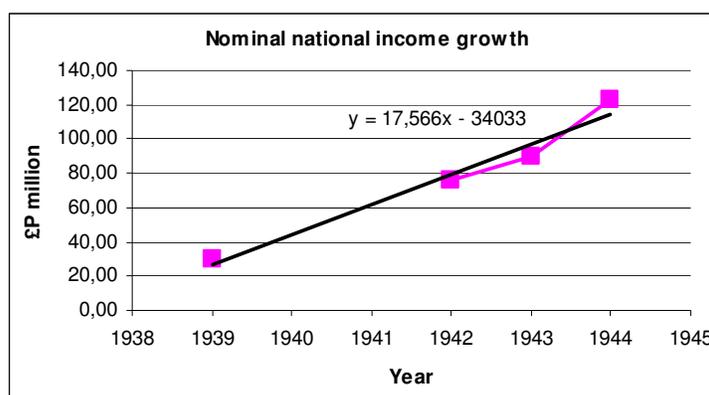
Source: National Income of Palestine 1944, Loftus, p. 25.

As we can see, the total share of national income for Arabs is £P49.6 million in 1944. Most of the output for Arabs is derived from the agriculture sector. The Jewish population shows a clear strength for the industry and commerce sectors. From the above table, we conclude that the share of national income for Arabs is 40% of the total national income of Palestine.

#### 2.4. PRESENT DAY ECONOMIC ESTIMATION OF NATIONAL INCOME

From our research, we have found the figures for the years 1939 (£P30 million), 1942 (£P75.89) and 1943 (£P90).<sup>10</sup> When we plot these data and run a regression analysis, we obtain the following results:

FIGURE 2: REGRESSION ANALYSIS ON NATIONAL INCOME



In Section 3 and Appendix 2, we provide a detailed explanation on the derivation of the regression. Now that we have a statistical tool to forecast data, we can adjust the 1944 national output to present day value by reference to our regression. We obtain the following results:

<sup>10</sup> Robert Nathan et al., Palestine: Problems and Promise, p. 156

Nominal national income growth (In £P million)		
Year		Nominal NI
1939	From historical record	30.04
1940		N.A
1941		N.A.
1942		75.89
1943		90.00
1944		123.02
1945	Forecast from linear equation	132.87
1946		150.44
1947		168.00
1948		185.57
2007		1221.96

Source: Robert Nathan et al., Palestine: Problems and Promise, p. 156 and Loftus, National Income of Palestine in 1944, p. 15

## 2.5. CONCLUSION ON THE NATIONAL INCOME APPROACH

The national income approach provides a snapshot of income level over the period of reference, in our case Palestine in 1944. The National Income by Loftus is a sound economic study for which income components are provided, i.e. wages, intermediate incomes, rents, profits, etc. Factors of labors and capital are also discussed. From the above table, we have estimated that the economic value of national income for 1948, on the basis of the years 1939-1944, is £P185,570,000. As we have seen in the above pages, the share of national income of Arabs is 40% or £P74,228,000 for a 1948 estimation.

It should be made clear that this figure is not to be assimilated to the value of total assets held by Arabs at the time of the war. It represents the flow of income over a one year period. Shall we want to use the national income approach to arrive at a value of Palestinian assets in 1948, we would need to determine a multiplier. Under such approach, we would apply similar economic principles as used in business valuation: Once the income or earning for one year has been determined, we apply a multiplier to arrive at the value of the business. Furthermore, as stated in the introduction of the Loftus study, the accuracy of some statistics can be questioned since British Mandate did not have a sophisticated statistical bureau in pre war time.

In conclusion, and for the reasons mentioned above, we do not recommend using the national income approach for arriving at an assessment of Palestinian refugee losses. However, such approach can be used to define for negotiation a minimum bound. This bound can be derived as follows:

£P123,036,000 (Loftus, National income in 1944)

£P185,570,000 (National income actualized from 1944 to 1948)

£P3 301,234,787 (Present day value at a rate of inflation of 5%, on a yearly compounding basis)

As a result, the negotiation should not start below **£P3.3 Billion or USD13.31 Billion** (at the exchange rate of £P1= USD4.0319). Such minimum range is justified from a 1948 national income perspective.

## SECTION 3 – FUNDAMENTAL ADJUSTMENT PRINCIPLES

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### 3.1. POPULATION AND REFUGEES RATES ADJUSTMENTS

One of the key issues to consider is the number of Palestinian Arab refugees in 1948. This is crucial because we need to apportion national data to the number of refugees in some of our valuation models. As a result, the ratio of refugees to the total Arab population is important as changes up or down to this ratio will significantly change our results when reaching a global estimated valuation of Palestinian Arab property losses.

Regarding the exact number of Palestinian refugees, different figures have been cited by different sources. From 1949 onwards, different studies have argued that the number of refugees ranged between 520,000 (Israeli estimate) and above 900 000 (Arab estimate). UNRWA's Economic Survey Mission also mentions the figure of 726,000 refugees (See Benny Morris, *The Birth of the Palestinian Refugee Problem Revisited*, p. 603 and Gabbay's Political Study).

The details of our population statistics in November 1947 are as follows:

- The total population of Palestine is estimated at 1,764,520. This figure is taken from *Village Statistics 1945*, p. 3 Table I.
- The total Palestinian Arab population is estimated at 1,210,920. This figure is extracted from *Village Statistics 1945*, p. 39 Table I.
- The total number of refugees used in our study is 726,000, a figure arrived at from rounding UNRWA's estimate (Economic Survey Mission), which is said to be meticulous but slightly exaggerated as it accounts for the inclusion of "destitute people" who had preferred to register with UNRWA rather staying at home impoverished. However, in using the above figure, we have not taken into consideration the small number of villagers who remained in the State of Israel as "internal refugees". Until an estimate of these people is provided we do not propose to include them in the total number of refugees.

The data are summarized as follows with their source:

TABLE 8: POPULATION ADJUSTMENT TABLE

<b>% for population adjustments</b>	<b>Data</b>	<b>Audit trail</b>
Total population in November 1947	1 764 520	Village statistics 1945, p. 39 Table I (2,030,000 persons to which we added estimated Bedouin population of 90,000)
Total Arab population in November 1947	1 210 920	Estimation taken from Village Statistics 1945, p. 39 Table I
<b>Share of Arab population in %</b>	<b>69%</b>	
Estimation of refugees	726 000	UNRWA's Economic Survey Mission in Gabbay's Political Study mentioned 726,000 refugees (Excluding 47 000 internal or domestic refugees as estimated) (See also Benny Morris, The Birth of the Palestinian Refugee Problem Revisited, p. 603)
<b>Share of refugees in % (of total Arab population)</b>	<b>60%</b>	
<b>Share of refugees in % (of total population of Palestine in November 1947)</b>	<b>41%</b>	

As a result, throughout this study, we refer to two critical percentages, whenever necessary for valuation purposes:

1. Proportion of Palestinian Arab refugees to total Arab population is 60%; and
2. Proportion of refugees to total population of Palestine is 41%.

Please note that we have decided not to use decimals in the above ratios due to uncertainties about some data. All ratios are rounded to the nearest decimals.

### 3.2. ARMISTICE LINE ADJUSTMENTS

Although the armistice line of 1949 does not denote an official border, in practice it is largely used to differentiate between those areas within the Israeli side of the Line, which are administered as part of the State of Israel, and the areas outside it, which are either administered by the Israeli military or in agreements with the Palestinian National Authority. One of our key concerns has been to ensure that we include only the land falling outside the armistice line (the land remaining in what is called today Israel). It should be noted that we could not remove the entire land of sub-districts in Gaza or the West Bank because the armistice line often passes through these districts. As a result we had to design a methodology to calculate the exact scope of land to be accounted for in our study. We have been collecting information on a

sub-district basis and making adjustment for areas falling outside the line. The following table has been used and applied whenever adjustments have been necessary in this study.

TABLE 9: LAND OUTSIDE THE TERRITORY OCCUPIED BY ISRAEL UNDER THE GENERAL ARMISTICE AGREEMENTS OF 1949

SUMMARY	Sub District	Area Outside Israel's Territory	Total Sub-District Area	Percentage of Arab land not in Israel
	BEISAN	411	367,087	1%
	JENIN	577,829	835,147	69%
	NABLUS	1,568,304	1,591,168	99%
	RAMALLAH	680,324	686,564	99%
	JERUSALEM	1,303,700	1,570,785	83%
	HEBRON	933,676	2,076,185	45%
	RAMLE	76,318	870,192	9%
	TULKARM	332,140	835,977	40%
	GAZA STRIP	346,616	1,111,501	31%
<b>TOTAL WEST BANK + GAZA STRIP</b>	<b>5,819,318</b>	<b>9,944,606</b>	<b>59%</b>	

Source: Village Statistics 1945 and Atif Kurbursi, Palestinian Rights and Losses in 1948, pp. 224-229

Atif Kubursi has provided a detailed description of the land falling outside Israel's territory. We have used such information to propose adjustment to the land to be included in our valuation. For instance, when valuing rural land, 99% of the land in the Ramallah sub-district will be excluded as per the percentage indicated in Table 9. In the Tulkarm sub-district, we will exclude 40% of the land. In Appendix 7 of this report we have attached a table showing the details of the land on a village-by-village basis in respect of armistice line.

### 3.3. ADJUSTMENT FOR ARABS REMAINING IN ISRAEL—OCCUPIED TERRITORY IN 1948

In our valuation, we had to make adjustments in some sections for the Arab inhabitants that remained in their homes in Israel-occupied territory in 1948. We had to estimate the number of dunums falling in this category in order to derive a methodology. We have used the material provided by Atif Kubursi in the study entitled Palestinian Rights and Losses in 1948. Once we have determined the exact scope of land remaining owned by Arabs in Israel, we have been able to make the necessary adjustments to our calculation.

TABLE 10: ARABS REMAINING IN ISRAEL—OCCUPIED TERRITORY IN 1948

Sub-District	Area (in dunums)
Acre	501,710
Haifa	169,973
Jenin	79,820
Jerusalem	11,234
Nazareth	178,906
Safad	43,904
Tiberias	56,780
Tulkarm	136,088
<b>Total</b>	<b>1,178,415</b>

Source: Atif Kubursi, Palestinian Rights and Losses in 1948, p. 245

In appendix 8 of this report, we have reproduced the entire table done by Atif Kubursi.

### 3.4. ADJUSTMENT FOR LAND SALES BETWEEN 1945 AND 1948

Most of our land data has been collected from Village Statistics 1945. As a result, for the sections related to the valuation of rural and urban lands, we have been interested by the scope of land sold between 1945 and 1948 in order to make adjustment to the 1945 values. We have to admit that information related to the sales from Arabs to Jews for years prior to the war is limited. Based on historical data, we have been able to calculate on average / year over the period 1920-1944, which is 36 091 dunums of land sold by Arabs to Jews.

TABLE 11: LAND LEGALLY PURCHASED BY JEWS FROM THEIR ARAB OWNERS FROM 1920 TO 1945

Year	Area (in dunums)
1920	1 048
1921	90 785
1922	39 359
1923	17 493
1924	44 765
1925	176 124
1926	38 978
1927	18 995
1928	21 515
1929	64 517
1930	19 365
1931	18 585
1932	18 893
1933	36 991
1934	62 114
1935	72 905
1936	18 146
1937	29 367
1938	27 280
1939	27 978
1940	22 481
1941	14 530
1942	18 810
1943	18 035
1944	8 311
1945 (estimated)	11 000
<b>Average 1920-1944</b>	<b>36 091</b>

As a result, we are using this average of 36 091 dunums per year to account for sales of land from Arabs to Jews over the period 1945-1948. Should more precise information be made available to us, we will review our estimation in due course.

### 3.5. GROWTH RATE ADJUSTMENTS IN NATIONAL INCOME

As argued in section 2, pre war Palestine had a developed economy. As a result, we have been able to extract some economic indicators on which to base our analysis. In some of the

valuations carried out in this report, we have been concerned with the share of net output for different categories of the population into which the economy can be divided. In particular, we are interested in the share of the Palestinian Arabs in that economy. We draw attention to the fact that the evaluation of economic activity is about measures of output or changes in output during a given period of time.

The expectation is that any past additions to the wealth of a nation, whether physical capital or human capital, will lead to growth in current output. These output measures, when stated on a per-capita basis (output per person) can be interpreted as a measure of regional or national standard of living ("SoL"), where  $SoL = \text{Output per Capita} = \text{Output} / \text{Population}$ . Such information is useful in the considering the context of our approach for calculating the loss of employment and livelihood.

As a basis for calculating the national income of Palestine in 1948, we have used the 1944 publication of Mr. P.J. Loftus. This is an official document prepared under the British mandate and, therefore, one that can be considered as primary evidence of economic data (wages, profits, interest and rents, etc.). However, we had to forecast the national income for 1948 from this publication. To do so, we used simple regression analysis of national income data between 1939 and 1944. From the regression (See also Appendix 2), we have been able to derive 1°) yearly national income data for each year between 1944 and 1948 and 2°) the growth rate of the economy in percentage terms as follows:

Growth rate factor	
1943-1948	106,2%
1944-1948	50,8%
1945-1948	39,7%
1946-1948	23,4%
1947-1948	10,5%

### 3.6. EXCHANGE RATE ADJUSTMENTS

The issue of choosing an appropriate currency exchange rate is crucial because the Palestinian pound ("£P") no longer exists. Underlying figures supporting the valuation are expressed in £P. Therefore, we need to establish an exchange rate for consistent application to the loss categories. In many studies reviewed, the 1948 exchange rate is mentioned (See also Michael R. Fischbach's Records of Dispossession, Appendix 1 page 369: One Palestinian Pound (£P) = USD4.03).

The legal tender currency in 1948 was the Palestinian pound, the value of Palestinian pound being linked to the Pound sterling. Following the establishment of the British Mandate, the Egyptian Pound circulated until 1927, when the Palestinian pound was introduced, and was equal in value to the Pound sterling. Before the 1948 war, Palestine was a full constituent of the British sterling currency. Palestinian sterling balances were freely available for conversion into sterling. After the 1948 war, the Palestinian pound was replaced by the Israeli pound at par. The Jordanian Dinar (JOD) was introduced on July 1, 1950 at par on the West Bank. Egyptian pounds were used in the Gaza Strip.

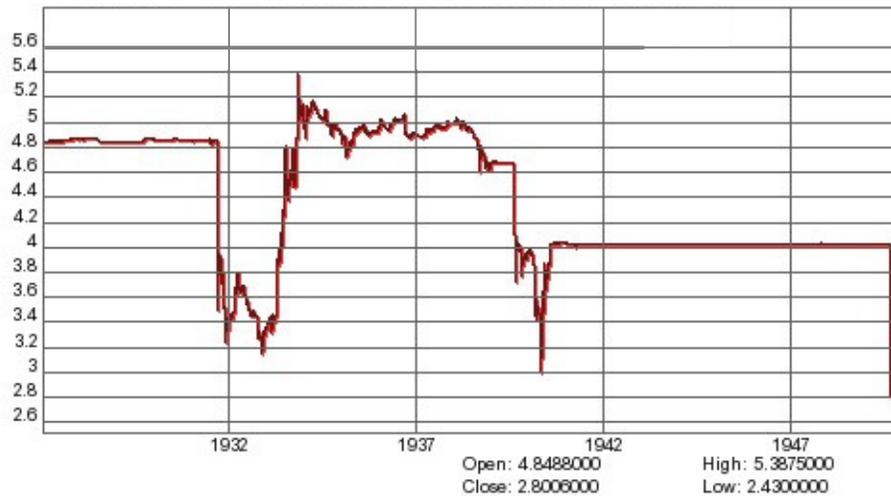
The rates are the following for different periods of time (See Appendix 4 for the full set of data points):

12/31/1930:	4.8516	12/31/1940:	4.0350
12/31/1931:	3.3775	12/31/1941:	4.0325
12/31/1932:	3.3275	12/31/1942:	4.0325
12/31/1933:	5.1200	12/31/1943:	4.0200
12/31/1934:	4.9363	12/31/1944:	4.0200
12/31/1935:	4.9300	12/31/1945:	4.025
12/31/1936:	4.9088	12/31/1946:	4.025
12/31/1937:	4.9969	12/31/1947:	4.0331
12/31/1938:	4.6363	12/31/1948:	4.0319
12/31/1939:	3.9537	12/31/1949:	2.8006

Source: Global Financial Data, 2006

In the rates quoted above for the period 1945-1948 (at close on the last day of the year), one can see little variation in the exchange rate before 1948. This is further illustrated by the following graph representing the fluctuations of the US dollar (USD) against the Pound sterling (GBP) between 1927 and 1949.

FIGURE 3: FOREIGN EXCHANGE RATE FLUCTUATIONS 1927-1949 (GBP/USD)



Source: Global Financial Data, 2006

From this graph, it should be noted that the dollar / pound exchange rate stabilized in the year 1940 at about 4 USD per GBP. Under continuing economic pressure, and despite months of denials that it would do so, on 19 September 1949, the government devalued the pound by 30%, from US\$4.03 to US\$2.80. Between early 1940 and September 1949, the exchange rate showed no material variations.

For the purpose of the valuation of Palestinian property losses, we recommend using the exchange rate effective on 29 November 1947, being the date on which the United Nations General Assembly adopted Resolution 181 concerning the partition of Palestine and establishing the parity of the two peoples with respect to their respective rights to establish states on the

former mandated territory of Palestine. As shown in the Annex X of this report, the exchange rate for USD / GBP on this date was 4.0319 (at close of the market). Therefore, this rate will be used in this study for converting all Palestinian pound figures into US dollars.

## SECTION 4 – VALUATION OF RURAL LAND

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### 4.1. SUMMARY OF FINDINGS

Please find attached an estimation related to the loss of rural land and buildings in 1948. The loss of such property represents a grand total of **£P398 221 800** (in 1948 values). This value encompasses real estate losses for rural lands used mainly for agricultural purposes and for the buildings that existed in rural villages of Palestine, urban buildings being valued with urban lands in the next section.

### 4.2. OBJECTIVES AND SCOPE OF WORK

This section deals with the evaluation of rural land and buildings. It includes the following categories of land owned by private individuals, state, or religious groups:

- Cultivable and uncultivable land
- Village built-up areas
- Beersheba Sub-District land

In this study, we carry out a valuation of rural land property, which includes land that was deemed uncultivable in 1948 (desert lands for instance), land that was used for agricultural purposes whether for growing crops or grazing livestock, and land that was built-up in the villages of Palestine (houses, barns, etc...). We will consider the entirety of the rural land existing in all 16 Sub-Districts of Palestine (including Beersheba). In this analysis we do not include any of the movable items that existed on the land or in the buildings (household property, agricultural tools, livestock, existing crops in 1948 etc...) as they are thoroughly covered in other sections of the report.

In order to provide with an overall value of rural lands, we will firstly use existing historical sources to calculate the scope of land that was lost by the Palestinian refugees in 1948. We will then derive on a sub-district basis market values as they are available to us. We have sought to apply the market valuation basis because it is a sound and internationally recognized standard.

### 4.3. BACKGROUND

#### (A) THE IMPORTANCE OF FARMING IN PRE-WAR PALESTINE

In Palestine in 1948, the vast majority of the people were living outside urban areas, in the countryside. Most Arabs were agricultural workers, whether they owned their own land or not and whether they were engaging solely in subsistence agriculture or were selling the products of their lands on national or international markets. Therefore, the greatest loss suffered both sentimentally and economically by the refugees at the time of their displacement was the value of their lands.

The Palestinian economy which Israel usurped was a viable economy with a significant flow of output and income that, in 1948, sustained a growing population of approximately 2 million people. A very large part of this population was engaged in agricultural activities, whether at subsistence level or at a larger scale, and an important part of the Gross National Product was derived from agriculture. According to Loftus, the gross value of crops in 1944 was £P26,506,000 and the gross value of livestock products was £P13,984,000.

#### (B) THE OTTOMAN LAND SYSTEM

The system of land tenure applied in Palestine during the four hundred years of Ottoman occupation comprised various modes of user; the features of which were set out in the Ottoman Land Code. The Ottoman law classified land under five categories. These, with suggested approximate counterparts in English, are:

1. Mulk [private or allodial land].
2. Miri [state or feudal land].
3. Waqf [land assured to pious foundations or revenues assured to pious foundations].
4. Matraka [communal profits-à-prendre land or land subject to public easement in common].
5. Mawat [dead or undeveloped land].

A more logical classification, based on the provisions of the law would be in two kinds, mulk and miri, with subdivisions:

##### A- Mulk [allodial land or private].

- \* Mulk [allodial land proper].
- \* Waqf sahih [allodial land in mortmain tenure].

##### B- Miri (feudal or state land).

- \* Miri khali [vacant state land].
- \* Miri that et-tasarruf [private usufruct state land].
- \* Miri matraka murafaqa [communal profits-à-prendre state land].
- \* Miri matraka mahmiya [common easement or servitude state land].

Most land was held under two distinct tenures commonly referred to as "mulk" and "miri". "Mulk" means "property": the tenure called "mulk" is private ownership tenure. Land so-owned

may be called “allodial” land - held in absolute ownership. “Miri” on the other hand was a conditional, or usufruct, tenure of land held theoretically by grant from the state. The holder or possessor of the land is subject to certain limitations on its use and disposition and to the payment of certain fees. The extent of “mulk” land in Palestine was limited and typically found in old cities or in garden areas: rural land in this category was rare.

Palestine land law is rendered more difficult to understand by the difficulty of translating Ottoman legal terms into English, as the terms “mulk” and “miri” have no exact counterparts. Their translation as “freehold” and “leasehold” or as “estate in fee simple” and “estate tail” is misleading. “Allodium” and “feudum” or “allodial land” and “feudal land”, are only near approximations. Similarly, the terms “vacant” for “khali”, “communal profits-à-prendre” for “matruka mahmiya” must all be considered as terms suggested as giving a meaning near to the Turkish.

However, in this report we have not referred to the Ottoman classification because data are not available under such classification.

#### (c) TAX RECORD CLASSIFICATION

During the Mandate period, for tax purposes, the British government imposed in 1942 a statute called “Rural Property Tax Ordinance”, which was a reform of the old Ottoman taxation system [the “Ushr” or “Tithe”, meaning “one tenth”] and thereby divided the land of Palestine into 17 categories according to its quality and nature (See Appendix 6). Please note that *Village Statistics 1945* uses these 17 categories, providing a detailed record of the scope of land to be included in our study.

According to British Mandate government records, the rural lands of Palestine were divided into four distinct soil zones:

1. *Coastal Plains*, which consist of first-class fertile land with an abundance of underground water and plentiful rainfall; this territory was highly developed and contained large stretches of citrus grove;
2. *Hill Country* is land varied even within narrow limits, and agriculture was dependent solely on rainfall. Owing to the nature of this terrain, the olive became the principal tree of the countryside and a large proportion of the existing groves date as far back as the time of the Christian Crusades in the 12<sup>th</sup> century. Other types of deciduous fruit trees also covered the hillsides, prominent among them were vines;
3. *Jordan Valley*, below sea level, where cultivation depended on the existence of streams or of water being pumped from the River Jordan. The temperature and humidity during the winter months in the area produced vegetables and fruit at a time of year when these commodities were not available in the other parts of the country; and
4. *Southern Region (Naqab or Negev)* equal to about half the territory of Palestine which, except for small regions suitable for limited patch cultivation when there was sufficient rainfall, consisted mainly of deeply eroded uplands and rift valleys. In the technical

annexes of this report, we include a table showing with some precision, the different qualities of soil.

Please note that the land was also classified under different soil quality as follows:

TABLE 12: SOIL QUALITY CLASSIFICATION

Good-quality Land		Predominant use
1	High-Class land, level or gently undulating, with fertile soils and adequate water supply	Intensive Citrus, fodder and vegetable cultivation.
2	Good land with loamy soil, similar to (1) but with lower rainfall	Citrus, cereals and vegetables.
3	Good land with deep alluvial soils, suitable for a wide range of ground crops, and where irrigation is available for intensive farming.	Cereals, fodder and deciduous fruits.
Medium-quality Land		Predominant use
4	Upland of limestone with steep and terraced slopes, much shallow and rock outcrop with tracts of deeper soils in the valley	Cereals, olives, vines and deciduous trees.
5	Upland similar to (4) but with more bare rock, steeper slopes, and less cultivable land	Cereals, olives, vines and deciduous trees.
6	Semi-desert lowlands, with good loess soils, but cultivation limited by low and very variable rainfall	Barley, wheat and melons.
Poor-quality Land		Predominant use
7	Lowlands with limited seasonal crops and grazing some broken land and some highly saline soil and extensive tranches of cultivable land if irrigated	Seasonal pasture with patches of irrigation on favorable sites
8	Dry eroded hills: Northern Belt, with sufficient moisture for patches of cultivation where sufficient soil	Seasonal grazing and patch cultivation
	Dry eroded hills: Wilderness, with very arid conditions	Limited seasonal grazing
9	Coastal sand dunes	n.a.
10	Southern desert (Negev), deeply eroded uplands and southern rift valleys	Desert with scanty patches of cultivation only when rainfall is sufficient

Source: UNCCP, Document A/AC.25/W.84, Annex B

#### 4.4. AVAILABLE EVIDENCE FOR VALUATION

Information about the scope and value of land can be easily identified in the historical record. For instance, the UNCCP estimates contain a wealth of data that is directly relevant to the question of land valuation, both rural and urban. They are the most widely-known study detailing the scope and value of Arab property in Israel as of 14 May 1948.

We have used the following sources of information:

##### (A) PRIMARY SOURCES

- Village Statistics 1945: We have made calculation based on the data contained from the original document in order to consolidate the scope of urban land lost by Palestinian refugees in 1948. The full tables used and calculations can be seen in our technical annexes.

- Atif Kubursi, Part V of *Palestinian Rights and Losses in 1948 (1988)*: From this work, we have extracted the summary tables used extensively in our valuation for 1947 rural land market values. Atif Kubursi asserted that he extracted these market values from several thousand original sales records which he and his team have computer coded and computed (cf. page 166-167 of his study).

(B) OTHER SOURCES OF EVIDENCE.

- UNCCP, *Document A/AC.25/W.81/Rev.2, Annex V, pages 6 to 8 (1961)*: This annex of a UN document provides with a methodology and a value per Sub-district for the Village Built-up lands. However it should be noted that we are quoting this study only to benchmark our own approach.
- Fischbach, *Records of Dispossession*: We have used this source to extract the UNCCP prices (See for instance Table 5.6, page 270). It should be noted that these prices do not appear in any other existing study, including UNCCP official ones. Furthermore, we were not able to access the original document itself or the sales records that were used to produce it.

#### 4.5. METHODOLOGY OVERVIEW AND RATIONALE

(A) GOALS

It is generally agreed that the market valuation basis is the most widely used valuation basis, and therefore we have chosen to retain this approach in our work. Please note that we have not recommended using data from the tax records. In our review of the past estimates, especially the UNCCP, we have seen that valuers attempted to determine market values as at 29 November 1947 by reference to tax assessments carried out many years earlier. Capitalization is then proposed to adjust those tax values to market values in 1947. However, real property valuation based on the capitalization of tax assessments presents many constraints:

- Land taxes are not levied at predictable rates and also prices quoted in the tax assessment records do not necessarily reflect true market values
- Tax values are in general low and, in the case of rural land, are largely theoretical, bearing little relation to actual market values prevailing during the pre-war years

(B) ASSUMPTIONS:

We have made the following assumptions:

- a. We only consider in this exercise the rural land that was lost by Palestinian refugees due to the situation that arose in 1948. We must also not take into consideration the land that fell outside of what has become Israel, according to the Armistice Line of 1948 ("AL48").

- b. We have sought to exclude all land that was of Jewish ownership in 1948. In the same way, we have sought to exclude the land that remained in Arab hands after 1948.
- c. We have assumed that the market values provided by Atif Kubursi are reliable, even if we could not obtain the raw data.

(C) VALUATION PRECEDENTS

As soon as the world became aware of the existence of refugees in Palestine, it became apparent that the question of the land and its ownership was going to be a critical issue, and therefore at very early stages of the conflict and to this day many national or international officials, experts and researchers have tried to value the land lost by these refugees.

In the following pages, we will outline several historical attempts at valuing rural land property lost by the Palestinian refugees in 1948. The results from these studies are reported in the following table.

Study	Valuation of rural land in £P 1948
UNCCP Global Estimate – Berncastle, 1951	£P69 525 144 (to which we add Jerusalem land for £9 250 000)
UNCCP Technical Program – Jarvis, 1964	£P167 395 073
Atif Kubursi, 1988	£P398 600 000
Frank Lewis, 1996	£P162 695 700 (for both urban and rural lands)

We now turn to a review of these estimates.

***Berncastle (UNCCP Global Estimate, 1951)***

The immediate task in 1951 was to assess a “global figure” which may be proposed as the basis of compensation to be paid by the Israel Government for immovable property. Compensation would be based on property’s values and Israel would pay into a fund and not to Arab Governments or individual refugees. The fund would in turn issue compensation payments to specific refugees.

The Berncastle methodology was as follows:

1. An analysis of the scope of refugee land is carried out (mostly from Village Statistics 1945). The results are as follows: Northern and Central Palestine: 4 186 012 dunums, 1 431 798 being recorded as “uncultivable”; Bersheeba District: 12 137 959 dunums, 10 303 110 being recorded as “uncultivable”; Jerusalem: 5 736 dunums;
2. Land values are then derived from tax rates and also expert opinion basis. Different methods are used to arrive at a general estimate of the value of refugees’ land in value/dunum (See explanatory note in the Matrix of Annex 1); and

3. Land values are capitalized to establish land's actual value as of November 29, 1947, date which was adopted as the date of valuation.

A definition of what constitute abandoned Palestinian refugee land is provided. This definition is based on a study of village and UNTSO maps (however, the amount of land to be counted as abandoned refugee land is too approximate). Arab-held land in general, regularly cultivated and uncultivable land (The term «land» is to be regarded as synonymous with “immovable property” and is used to denote land and anything attached to land. Buildings and trees have, therefore, been regarded as an integral part of the soil on which they stand and valued together with it).

The source of information is primarily from the 1945 Village Statistics (which shows the number of dunums in each village divided into seventeen categories of value, and the number of dunums in each category held by Arabs and Jews respectively). Regard was also paid to the opinions of experts with experience of conditions in Palestine during the last years of the Mandate.

The assessment is generally accepted to be understated (For instance, at about the same time, the Weitz-Lifshits-Danin Committee of 1948 had estimated the value of abandoned land at £P181.5 million). In fact, UNCCP felt that producing a figure that was too high for Israel to pay would be ill-timed. This raises the question of objectivity and accuracy of the proposed estimate and valuation basis. The work also raises the issue of land in the southern region of Beersheba and whether or not it should be included in the valuation (Berncastle assigned a value of £P3.6/dunum for cultivated land in this District, not value being assigned to the large number of uncultivated land). This issue has still to be sorted out.

We could point out to the following weaknesses:

- The scope of land to be counted as abandoned refugee land is approximate (16 329 707 dunums of land are included as abandoned Arab land in Israel, out of which a large portion is uncultivable land – See matrix in Annex 1). The study considers that land classified in the uncultivable non-taxable category was outside the realm of Arab ownership
- No rigorous attempt has been made to distinguish between properties belonging to Arabs who are refugees and those who are not. The study considered that its mandate covered only Palestinian refugees in exile who had lost their lands, not those remaining within Israel. However many Arabs having stayed in Israel had lost control of their land and been declared “present absentees”. As a result the status of Palestinians who had not fled as refugees but remained in what has become Israel remained to be addressed
- Tax assessments of rural land and urban property tax assessments are out of line with actual true 1947/1948 market values. By relying heavily on Village Statistics 1945 (in which the assessed values of land are extracted from the mandatory tax records), Berncastle made an assumption that land values in the document reflected true land values in 1947/1948. Furthermore, the land expert considered the high prices in the late 1940s as speculative and therefore fictitious. Valuations do not reflect the reality of higher prices for land in Palestine at the end of the 1940s (whether artificial or not).

TABLE 13: VALUATION PRINCIPLES USED BY UNCCP IN 1951 FOR RURAL LAND

<b>Note on the valuation principles used by UNCCP in 1951</b>	
<p><b>For identification</b> of the scope of the abandoned land (out of a total area of 26 320 000 dunums), the process by which the global figure of 16 324 000 million dunums was arrived at (of which 4,574,000 dunums are cultivable) is as follows:</p> <ol style="list-style-type: none"> <li>1. Deletion from the Village Statistics of all villages outside Israel's jurisdiction, including the demilitarized areas as well as the Jerusalem no man's land.</li> <li>2. Deletion from the Village Statistics of those urban areas and villages in which land continued to be held by the original Arab inhabitants.</li> <li>3. The above deletions and alterations having been made, the totals of the columns headed "Arabs" in the Village Statistics gave the number of dunums of rural land in each category of group of categories which were formerly held by Arabs and which have now passed into Israel hands.</li> </ol> <p><b>For the valuation</b>, the following principles have been adopted:</p> <ol style="list-style-type: none"> <li>1. Valuation should be based on existing use value (i.e., in the case of agricultural land, on estimated productivity of crops and in the case of buildings in urban areas on actual or estimated productivity of rent)</li> <li>2. Speculative elements which exceeded the normal should be ignored. These fictitious elements were due to temporary shortages owing to conditions during and after the Second World War; to the effect of the Land Transfer Regulations, 1939, which, by strictly limiting the areas in which Jews were allowed to purchase land, forced up prices in those areas; to the effect of land purchases by the Jewish National Fund for strategic reasons at prices greatly in excess of those which could be justified economically; and to the Arab campaign against sales of land to Jews, as a result of which Arabs who effected such sales ran certain risks for which they expected to be compensated</li> <li>3. The valuation should be made by reference to the level of values prevailing and to the condition of the property as at 29 November 1947</li> <li>4. No value should be placed on uncultivable land</li> </ol>	

The following computations have been done:

TABLE 14: VALUATION OF RURAL LAND BY UNCCP 1951

	Category	Valuation principle	Value/ Dunum	Dunums claimed	Total values (£P)
<b>Citrus</b>	1-2	Expert opinion	£80,0	120 564	£9 645 120
<b>Banana</b>	3	Tax assessment	£80,0	620	£49 600
<b>Village built-up</b>	4	Average of capital value based on tax assessments	£150,0	14 602	£2 190 300
<b>Irrigated lands, fruit plantations and first-grade ground crop land</b>	5-8	Multiplying 1947 tax rates by 10 to give the N.A.V. for each category and by weighting the N.A.V. thus arrived at by adding 25 per cent to take account of the fact that irrigated land increased proportionately more in value than dry cereal land, and finally by applying a coefficient of 30 to give a capital value of £P60 for category 5 and of £P48.75 as the average for the whole groups of categories 5 to 8	£48,8	303 750	£14 807 813
<b>Cereal land</b>	9-13	Applying the same coefficient of 30 to the unweighted 1947 N.A.V. of these categories, and taking the average for the whole group	£16,8	2 113 183	£35 501 474
<b>Marginal cereal land</b>	14-15	The same process was applied as in the case of categories 9 to 13	£3,6	201 495	£725 382
<b>Forest and</b>	16	No value assigned	£0,0		£0

<b>uncultivated</b>					
<b>Negev cultivable land</b>		Expert opinion	£3,6	1 834 849	£6 605 456
<b>Total</b>				<b>4 589 063</b>	<b>£69 525 145</b>

**Jarvis (UNCCP Technical Program, 1964)**

This is a more comprehensive valuation than the one done by UNCCP in the early 1950s. The valuation is based on a comparison of tax and so-called “market values”. Capital values is generally obtained from 1°) the N.A.V. assessed for urban property tax in urban areas and 2°) tax categories of land in rural areas. However, we could not identify the origin of market values.

The 1964 UNCCP assessment brings corrective measures to the 1951 Global Estimate which is admitted to be understated for the following reasons:

- The value of property for its existing use was arrived at by taking the broadly similar types of land and estimating their general value;
- Foreseeable future increases in value which the open market would be willing to pay for e.g. a higher value than existing use value on the fringes of town for future development were not included; and
- In the “global” valuation no value was attributed to land in Tax Category 16 on the grounds that it was uncultivable, whereas the present study has shown that it had an appreciable value.

The identification work done by the UNCCP Technical Office is very comprehensive. We have been able to assess the computerized R/P1 forms prepared for individually Arab-owned land but also including: Islamic and Christian waqf land (land assured for pious foundations), de-militarized zones land in northern regions and Beersheba district, non man’s land of Jerusalem-Ramla, armistice lines land, musha land (collectively owned), companies land (partnerships and cooperative societies).

In the following table, we summarize UNCCP approach done by Jarvis.

TABLE 15: VALUATION PRINCIPLES USED BY UNCCP IN 1964

<b>Note on the valuation principles used by UNCCP 1952-1964 (Jarvis)</b>
<p><b>Identification (Issue of ownership)</b></p> <p>- The identification consisted in preparing the following forms:</p> <ol style="list-style-type: none"> <li>1. <b>R/P1 forms</b> are prepared for individually Arab-owned land but also include: Islamic and Christian waqf land (land assured for pious foundations), de-militarized zones land in northern regions and Beersheba district, non man’s land of Jerusalem-Ramla, armistice lines land, musha land (collectively owned), companies land (partnerships and cooperative societies). A total of above 450 000 R/P1 Forms have been prepared (different colors of the form being used to differentiate types of ownership and property). 5 194 091 dunums are recorded on R/P1 forms (excluding Beersheba), including 2 720 211 for settled land</li> <li>2. <b>R/P3 forms</b> have been prepared for “excluded land” (Jews and non-Arab individuals) but also state land (Land owned by municipal bodies or registered to village headmen, or mukhtars, is usually on R/P3 Forms). 2 156 484 dunums are included for settled land and 523 844 for non settled land</li> <li>3. <b>R/P5 forms</b> for state land leased to Arabs who were eligible to purchase it someday</li> </ol>

4. **Beersheba** sub-district is a special case. Rural land taxation rested on a system of commuted tithes which have not been found. The Registers of Deeds were examined and about 64,000 dunums were identified as being registered in the names of Arabs. As a result, R/P1 Forms have been prepared only for Arab owned lands included in the Register of Deeds. Some additional 1,811,000 dunums is argued to be cultivable land by Bedouins. 10 580 000 dunums is registered as non cultivable land

- The following sources have been used:

Records consulted and available	Information obtained	Source used by the Technical Office			
		Settled land	Non settled land rural	Non settled land urban	Beersheba rural
a. Registers of Title	<b>Location</b>	a, b, e	e	b, d	b
b. Registers of Deeds	<b>Area</b>	a, b, d, e	e	b, d, h	b
c. Tax Distribution Lists	<b>Description</b>	a, b, d, e, f		b, d	b
d. Field Valuation Sheets	<b>Names of owners</b>	a, b, d, e	c	b, d	b
e. Schedule of Rights	<b>Shares</b>	a, b, d, c	c	b, d	b
f. Parcel Classification Schedules	<b>Rural property tax category</b>	c, f	c		
g. Land Registrar's Returns of Dispositions	<b>Urban property tax assessment</b>	d		d	
h. Village Maps and Block Plans	<b>Encumbrances</b>	a, b, e		b	b
	<b>Sale particulars</b>	g	g	g	b

- From the available records (See above list), the Technical Office was able to identify rural properties by sub-district, village or town block and parcel number, by tax category of net annual value, by type of ownership and by ethnic background of the owner. Land still owned by Arabs living in Israel (1 012 049 dunums) was deducted from the total of 5 258 091 dunums covered by R/P1 Forms to arrive at a total of 4 246 042 dunums belonging to refugees.
- For built-on areas, the total area of buildings is based on the total population, which is obtained from the Village Statistics 1945.

#### Valuation (Issue of quantification of losses)

- The declared or assessed value (whichever is the higher) on records is considered a fair guide to market value (assuming the Registrars had a good knowledge of values). Whenever possible, tax values were compared to sales values in order to obtain a fair idea of prices.
- For **rural land**, land is classified into sixteen tax categories used under the Rural Property Tax Ordinance (similar to what Berncastle did) and into 10 regional zones (with distinction made for soil qualities, rainfall and topography). Valuation is done as follows:
1. In most cases, a first step in the valuation process is to consider all the sale prices of transactions which took place in the years 1946-1947 village by village. A form is prepared setting out the block and parcel number, the area of the parcel, the tax category, the date and amount of the consideration (as assessed or declared) and the share of the whole which was being sold. From this it was possible to deduce the sale price per dunum and consequently the value per dunum of the whole parcel.
  2. The result of this analysis is transferred to summary sheets and the total area of each parcel affected by a sale is multiplied by the value per dunum to give the total value of the parcel (This is done for each tax category or groups of tax categories in each village and where necessary for the different regional zones).
  3. An average price for all land of the same tax classification in the same zone in each village is then obtained
  4. A specific value is ascribed to each individual R/P 1 Forms
- For **built-on areas**, the valuation is as follows: a nation-wide figure of £P2 per square meter for rural buildings based on building costs is used and multiplied by number of estimated rooms in a village (derived from mandatory population figures). To this is added a value for land equal to 3 times the corresponding value of garden areas in that village.
- For **gardens and fringe areas**, the UNCCP developed a methodology to take into account the fact that land adjoining large towns had a special value and these were treated differently in that the analysis of the sale prices was not related to tax categories. It was admitted that certain areas in the neighborhood

of large towns (Jaffa, Tel Aviv, Haifa and Jerusalem) had a potential development value.  
 - Rural land is valued as follows:

	Total Area (Dunums)	Area covered by R/P1 Forms (Dunums)	Land owned by Arabs still in Israel (Dunums)	Value of land (£P)	Refugee land (Dunums)
<b>Acre</b>	795 357	507 707	318 714	£15 051 225	188 993
<b>Baysan</b>	366 095	147 167	9 390	£3 464 834	137 777
<b>Nazareth</b>	490 942	248 345	190 182	£5 595 879	58 163
<b>Safad</b>	696 859	347 710	30 222	£7 323 092	317 488
<b>Tiberias</b>	439 031	194 439	50 323	£3 805 192	144 116
<b>Haifa</b>	972 312	405 580	170 238	£11 757 629	235 342
<b>Janin</b>	257 212	228 407	86 554	£4 357 696	141 853
<b>Nablus</b>	23 414	23 414	-	£540 660	23 414
<b>Tulkarm</b>	503 676	332 571	140 231	£11 987 299	192 340
<b>Hebron</b>	1 162 336	1 144 808	7 649	£12 443 989	1 137 159
<b>Jerusalem</b>	296 943	221 482	3 186	£10 598 408	218 296
<b>Ramallah</b>	6 240	6 240	-	£135 150	6 240
<b>Jaffa</b>	285 084	140 425	40	£23 560 057	140 385
<b>Ramla</b>	763 481	569 813	5 320	£22 190 429	564 493
<b>Gaza</b>	815 437	675 983	-	£19 579 534	675 983
<b>Beersheba</b>	12 445 000	64 000	-	£15 000 000	64 000
<b>Total</b>	<b>20 319 419</b>	<b>5 258 091</b>	<b>1 012 049</b>	<b>£167 391 073</b>	<b>4 246 042</b>
<i>adding land believed to be cultivable in Beesheba</i>		1 811 000			
<b>Total</b>		<b>7 069 091</b>			

Identification of rural land has been done from the following sources: Registers of Title, Registers of Deeds, Tax Distribution Lists, Field Valuation Sheets, Schedule of Rights, Parcel Classification Schedules, Land Registrar's Returns of Dispositions, Village Maps and Block Plans. The registers of title have been considered to be a reliable and legal reckoning of the land ownership rights, not the registers of deeds. They account for the reckoning of the amount of land that had been settled by April 30, 1947 (5 243 042 dunums out of a total area of 26 320 000).

Compared to the UNCCP Global Estimate of 1951, the identification is therefore more precise for settled land (essential data being obtained from Registers of Title) but more problematic for non settled land both in the urban and rural areas. As a result, reporting on R/P1 form suffers major drawbacks:

- Proof of title is not absolute when R/P1 Forms information is not relying on registers of titles and tax documents. Tax documents do not necessarily show all the share holders;
- Field valuation sheets, tax distribution lists, and registers of deeds do not necessarily disclose the true owner but only the name of taxpayer;
- Gaps do exist in the data for some areas (i.e. Beersheba District) and tax distribution lists are missing for villages; and
- Description of the buildings obtained from the field valuation sheet is often insufficient as a guide to the relative values of different buildings.

This valuation approach has the advantage to consider critical issues: valuation of buildings in rural areas (built-on areas), communally owned land, state land, land in Beersheba district, movable property... The issues of built-on areas, gardens and fringe areas are analyzed and valuation methods proposed to take into account the fact that such land, i.e. adjoining large

towns, had a special value and a development potential (However, details of the valuation methods are unclear). Sales comparison are said to be made to ensure consistency across types of properties and making the appropriate adjustments if necessary. However, the method followed to investigate sale values is not provided.

Village built-on areas (i.e. village houses) is reported to present a major valuation challenge since no data is available as to buildings (Village built-on areas are not subject to the urban property tax and N.A.V. are not available, nor are sales transactions). Elements of methods are provided but they remain approximate (one is based on the total population and the other on sampling from 50 villages). Furthermore, buildings constructed after the completion of land settlement operations are not recorded anywhere. The report for built-up areas says the following:

*"It was accordingly decided to employ a given figure per square metre as the average value of buildings over the country as a whole. Since this figure was derived from actual prices it reflected the effects of depreciation and change in market values.*

*Again, very little evidence was available as to the value of vacant sites in built-on areas. The original rate of tax in built-on areas was 10% of a low capital value of £P 27 per dunum for the land only. In 1944/45 the tax rate was quadrupled which may be considered to reflect the increased capital value which would then be £P 108 per dunum. From a study of the few capital sales available in "settled" built-on areas, and from a comparison with vacant sites in small urban areas, insufficient evidence was available to form a reliable guide as to the value of any particular built-on area vacant site. It seemed reasonable to assume that vacant sites in built-on areas would bear a relationship to the values found for "Garden areas" which typically encircle a built-on area. It might be argued that the values within the built-on areas would be no higher than that immediately adjoining, but such evidence as does exist indicates that this is not so, and that the value of built-up area exceeds that of "Garden area" land. This is supported by the official tax valuers' views in assessing the capital value at £P 27 in 1935. In order to establish a relationship between "Garden area" values with that of vacant site in a built-up area, the villages having the lowest garden area value were studied and it was found that the lowest values were multiplied by a factor of three, a figure of approximately £P 100 resulted. It was accordingly decided to adopt three times the "Garden area" value as the value of built-up area vacant land. From the above, it will be apparent that the total value of built-up area can be obtained by combining the building coverage in square metres multiplied by the value per metre and the value of the base land, calculated at three times the "Garden Area" value. However, a study conducted by UNCCP of the large scale plan indicated that in most cases there were many buildings outside the built-up area, and such buildings would be excluded by the above calculation. It was therefore decided to extend the built-on area study to include such buildings, and as no comparison between building areas and land areas could be made, we suggest it is reasonable to base the total area of buildings on the total population which is obtained from Village Statistics 1945"<sup>11</sup>*

From the grand total of rural and urban land, Jarvis deducted the amount of £P31 000 000 to take into account immovable property owned by Arabs residing in Israel. This figure seems to be approximate and under estimated. Furthermore, underlying calculations are not available and it is not possible to reconcile the aggregate figures provided in the various documents to underlying evidence from the identification forms (i.e. R/P1 Forms). The origin of "sale values" is also unknown at this stage. The basis for choosing the multipliers is not clearly stated (i.e. 6% rate of interest for buildings).

The 1,811,000 dunums of cultivable land in the Beersheba District are said to be cultivated by Bedouins but no precise information has yet been obtained concerning the areas. As a result, the study does not include most of the land in the valuation. A problem is presented when an attempt is made to estimate the degree to which the urban areas were abandoned. This issue

<sup>11</sup> This is extensively discussed in UNCCP document A/AC.25/W.81/Rev.2, Annex V.

has to be addressed. Please note that Jarvis, in a separate study, estimated the value of communal property at \$US56 million. This figure is included in our calculation but we point out that it is said to have no real basis.

In conclusion, we can say that this assessment has brought into existence a compact record of Arab land holdings in Israel which could be used as a basis for verifying individual claims to ownership (At this stage, the information reviewed do not contain the audit trail to material necessary to value each holding).

### **Atif Kubursi, 1988**

This study is a comprehensive attempt to estimate the national wealth of the country for arriving at an estimate of refugees' property losses. In Part V of *Palestinian Rights and Losses in 1948*, Atif Kubursi estimates the total loss of the 1948 refugee to be £P304 440 117 (in 1948). Dr. Kubursi's estimation is sensitive to 2 crucial factors: 1°) national income divided between the Arabs and the Jews and 2°) proportion of refugees to the total Arab population. For valuation of land, recourse is made to multiple regression analysis on raw data to determine effects of a few variables (location, tax category, area...) on sale values. Present values of net streams of expected incomes of farms are also used as proxies for capital values, along with location and land fertility indicators. For rural land, valuation is done by weighted averages across tax categories. Dr. Kubursi has used extensively *Village Statistics 1945* to determine the scope of lost land and some original sales records to determine the market values of the land. In the following table, we have summarized his findings:

TABLE 16: VALUATION OF RURAL LAND BY ATIF KUBURSI

<b>Sub-District</b>	<b>Cat 1 to 3 (citrus &amp; banana)</b>	<b>Cat 4 (Built- on)</b>	<b>Cat 5 to 8 (plantations )</b>	<b>Cat 9 to 13 (taxable cereal)</b>	<b>Cat 14 to 15 (taxable cereal)</b>	<b>Cat 16 (Uncultivable)</b>	<b>Total</b>
ACRE	£936 255	£351 782	£5 865 825	£6 005 286	£818 898	£29 199 323	<b>£43 177 369</b>
BEISAN	£118 525	£139 937	£301 029	£3 190 480	£183 956	£4 457 212	<b>£8 391 139</b>
NAZARETH	£4 487	£258 089	£1 019 225	£6 065 887	£55 440	£4 987 102	<b>£12 390 230</b>
SAFAD	£12 012	£1 240 667	£4 090 941	£2 419 006	£1 422 655	£14 888 214	<b>£24 073 495</b>
TIBERIAS	£10 245	£691 488	£684 211	£1 824 228	£267 284	£4 755 620	<b>£8 233 076</b>
HAIFA	£9 703	£499 022	£1 886 055	£10 788 107	£272 588	£9 003 802	<b>£22 459 277</b>
JENIN	£282	£58 542	£397 616	£5 420 235	£56 323	£3 315 950	<b>£9 248 948</b>
NABLUS	£0	£0	£441 991	£16 995	£267 111	£109 536	<b>£835 633</b>
TULKARM	£1 013 228	£69 930	£487 471	£9 405 299	£34 841	£2 955 818	<b>£13 966 587</b>
HEBRON	£1 313	£373 365	£794 754	£7 767 384	£1 948 616	£25 149 056	<b>£36 034 488</b>
JERUSALEM	£5 089	£729 051	£2 540 488	£2 250 877	£448 986	£4 770 970	<b>£10 745 461</b>
RAMALLAH	£0	£0	£0	£31 503	£3 813	£157 917	<b>£193 233</b>
JAFFA	£12 685 153	£1 016 763	£8 207 466	£29 302 427	£15 378	£4 224 450	<b>£55 451 636</b>
RAMLA	£5 107 729	£452 444	£3 587 432	£13 844 699	£397 739	£4 673 016	<b>£28 063 059</b>
GAZA	£2 386 118	£733 074	£2 983 125	£20 903 286	£2 054 851	£2 116 031	<b>£31 176 485</b>
<b>PALESTINE</b>	<b>£22 290 139</b>	<b>£6 614 154</b>	<b>£33 287 628</b>	<b>£119 235 700</b>	<b>£8 248 479</b>	<b>£114 764 017</b>	<b>£304 440 117</b>

Source: Part V of *Palestinian Rights and Losses in 1948*, Table 20-3, pages 170-171.

NB: We have corrected a non-substantial error for the Gaza Sub-district. The overall result is however unaffected

**Frank Lewis, 1996**

The valuation basis is the productivity of the land. Rather than rely solely on transfer prices or on rural tax rates, as does the UNCCP, the Arab land's share of agricultural output is derived and capitalized as follows:

1. Breakdown of Palestinian and Israeli land is done for different crops and areas based on Village Statistics 1945;
2. Net output/dunum is established for years 1945 and 1936 to highlight structural changes in market conditions;
3. Output/dunum is adjusted to account for structural changes and to fit actual area under crops recorded in Village Statistics categories of land;
4. Arab agricultural output is generated in 1945 £P for Palestine and Israel;
5. Adjustments are made again to account for farms retained by Arabs and for Jewish purchases of Arab land from April 1945 (the date of the record of Village Statistics 1945) to mid-1947; and
6. From annual output obtained, capital values of abandoned land are derived by using two options with capitalization factors of 8 and 10 (accounting for productivity change and change in value of money).

The findings are summarized in the following table:

Methodology note	Arab-owned agricultural land	Adjusted output/dunum	Value of total output of Arab-owned land	Loss of total annual output after adjustments	Capitalization (Converting annual loss output to an income stream)	
	Area in dunums	Adjustments according to Village Statistics categories	In 1945 prices	Adjustments: 1°) for farms retained by Arabs and 2°) for Jewish purchase of Arab land from 1945 to mid-1947	Loss of output with a factor of 8 accounting for discount rate and change in productivity	Loss of output with a factor of 10 accounting for discount rate and change in productivity
<b>Citrus</b>	144 500	£44,32	£6 404 240	£5 965 500	£47 724 000	£59 655 000
<b>Plantations</b>	1 111 200	£10,35	£11 500 920	£2 749 000	£21 992 000	£27 490 000
<b>Cereals (cat. 9-13)</b>	3 961 079	£3,15	£12 477 399	£7 592 400	£60 739 200	£75 924 000
<b>Cereals (cat. 14, 15)</b>	2 828 161	£0,87	£2 460 500	£1 770 400	£14 163 200	£17 704 000
<b>Total</b>	<b>8 044 940</b>		<b>£32 843 059</b>	<b>£18 077 300</b>	<b>£144 618 400</b>	<b>£180 773 000</b>

The average of the two capitalization methods (see above table, factors 8 and 10) gives the loss of output for Arab land (4 574 500 dunums): £P162 695 700.

The Lewis study provides measures of Arab land productivity in a methodological manner to avoid the bias introduced by the non representative tax assessments (UNCCP). The study reflects output at the time of the war and allows expectations for growth as well as structural adjustments in market conditions and land quality. The approach also provides options for deriving capital values from annual output values (Although the methods used are questionable, the concept of capitalization is in line with international valuation standards, i.e. valuation of stocks and companies is commonly done on a cash flow basis and not on a tax basis as reported on profit & loss accounts). Again, in this study, adjustments are made to differentiate between Palestinian and Jewish land according to quality of various categories. Adjustments are also made again to account for farms retained by Arabs and for Jewish purchases of Arab land from April 1945, the date of the record of Village Statistics 1945, to mid-1947). However, we could not trace the origin of such adjustments.

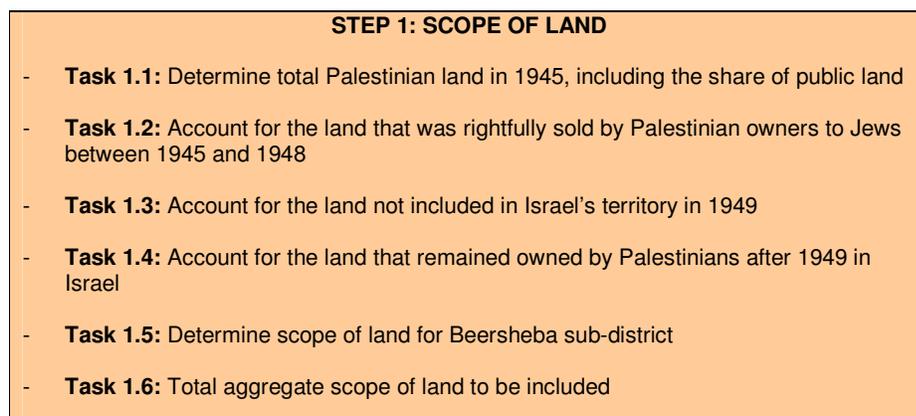
Major weaknesses of the assessment should be pointed out:

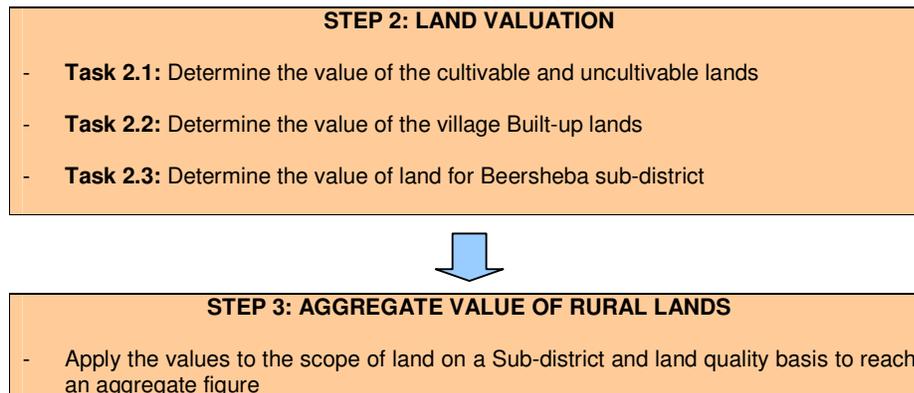
- Confined to agricultural land for selected crops and land types. For instance, land offering a development potential is not included. Land used for grazing or desert land is not included as well;
- Very limited in scope to understand the full extent of Palestinian losses when it comes to buildings, built-up areas, financial assets, etc.; and
- Although a capitalization of income stream is provided, the methodology to reach and apply the capitalization factors is questionable. The use of the factors is arguable and not defined.

#### 4.6. ANALYSIS

The valuation of rural land is quite complex because many issues have to be considered. As a result, we have chosen to conduct the valuation of lost rural lands in several steps and tasks, organized as follows:

FIGURE 4: LOGICAL REVIEW FRAMEWORK FOR RURAL LAND





In our analysis, we will exclude from the land category 17 (Fish Ponds) as it was entirely owned by Jews in 1945 and therefore does not entitle the refugees to any reparation.

#### STEP 1: SCOPE OF LAND

The scope of abandoned land must first be determined. We have referred to previous estimates, especially the UNCCP ones, to arrive at a precise methodology. As said in Annex V of the UNCCP report A/AC.25/W.81/Rev.2: *“Four possible methods of approach suggested themselves to the Office: (a) The issue to all refugees of a questionnaire, and the checking of replies against the Land Registers (registers of title and transmission) of the Mandatory Government; (b) The use of the Land Registers themselves, as reconstituted from micro-photographs; (c) The use of the records of the Custodian of Absentee Property, appointed by the Government of Israel under its Absentee Property Act; and (d) The use of Village Statistics 1945, issued by the Government of Palestine.”*

*“Methods (a) and (b) were discarded because they would have afforded a relatively incomplete factual basis. Method (c) was not used because it was felt that it would be inappropriate to assess compensation entirely on the basis of information furnished by an interested party. The valuation was therefore based on the Village Statistics, which contain the basic material both for ascertaining the extent of the land and for making a global assessment of its value: i.e., a list of all the villages and towns in Palestine, giving the populations subdivided according to religion, and giving the area in dunums of each village and town, divided into categories according to the nature and the use of the land, and showing the number of dunums in each category held respectively by Arabs, Jews, the State and others. The “Statistics” also give the total amount of rural property tax and urban property tax payable in each town and village by Arabs and Jews respectively.”*

We have opted for an approach based on the full version of the *Village Statistics 1945*. We have computerized the version of this document based on one of the few remaining original copies that was provided to us by Atif Kubursi in 2005.

For cultivable and uncultivable land, we first established the scope of lost Palestinian land, which we then multiplied by a per dunum price based on market value. Always keeping in mind the importance of the above-mentioned geographical factor in the value of land, we have worked on

a sub-district basis (there are 15 sub-districts in Palestine, plus Beersheba). We have also distinguished 15 different categories of land, out of the 17 British mandate tax categories (1 to 3 and 5 to 16), thus taking into account the land's quality in our valuation. The same approach has been used to determine the scope of land for category 4 (Village built-up).

**Task 1.1: Determine the total Palestinian land in 1945, including the share of public land**

The scope of land has most been assessed by reference to Village Statistics 1945. Village Statistics 1945 provides the scope of lost rural land for each sub-district (according to the 17 British tax categories) and sorted according to the owner ("Arab", "Jew", "Other", "Public", "Road & Railways, etc...").

We must firstly account for all the land privately owned by Palestinians. As instructed to by our Terms of Reference, we have regarded as Palestinian all the people described in *Village Statistics 1945* as "Arabs" and "Others" (who were mostly Christians and who suffered from the displacements too). Obviously we excluded all Jewish owned lands from our valuation. In addition to the privately owned land, we have also considered that the Palestinian refugees were entitled to reparation for a share of the Public land of Palestine, as well as for a share of the land on which Roads and Railways were built.

It makes sense to include the share of Arab public land at this stage of the review. Indeed, one may consider that the public land of a state is the shared property of all its citizens, as it is the taxes paid by all of them that are used to maintain and develop this public land, and because it is equally opened to and used by all. However, it must be noted that, in this Section, we only consider the land that was public and/or on which roads and railways were built, and we do not consider the existing infrastructure, in order not to double count with Section 10 of this report.

The question is how to calculate the share of Arab public land when only aggregate data are available for the entire population of Palestine, Jews and Arabs. We propose a methodology based on the tax record information to derive ratios for the Arab population only. Considering that the rural taxes were calculated during the British Mandate according to the area of privately owned land by each individual, we have used private ownership of land as the basis to determine the Ratio of Public Land (RoPL) for which the Palestinian refugees are entitled reparation.

We have proceeded as follows. In each sub-district, we have determined the total privately owned Palestinian land (**A**) by adding the land owned by "Arabs" and "Others" in *Village Statistics 1945*. We have then considered the scope of all privately owned land (**B**) by further adding the land owned by the Jews. Thus, to obtain the Ratio of Palestinian Land, we divided A by B.

Example:

For instance, in the sub district of Acre, we know from Village Statistics 1945 that the land ownership was organized as follows:

695 694 dunums of "Arab" land  
 24 997 dunums of "Jewish" land  
 1 481 dunums of "Others" land

Thus, total privately owned Palestinian land (**A**) is  $695\,694 + 1\,481 = 697\,175$  dunums and the total privately owned land (**B**) is  $697\,175 + 24\,997 = 722\,172$  dunums, the ratio of Palestinian Land to total land in Acre being  $A/B = 97\%$

The following table shows in each sub-district the Ratio of Palestinian Land (RoPL) calculated with the same method.

TABLE 17: TOTAL OWNERSHIP OF RURAL LAND – RATIO OF PALESTINIAN LAND

Sub-district	Palestinian privately owned land ("Arab + Other")	Total privately owned Land ("Arabs" + "Others" + "Jews")	Ratio of Palestinian Land (RoPL)
	(A)	(B)	(RoPL = A/B)
ACRE	697 175	722 172	<b>96,54%</b>
BEISAN	159 996	284 751	<b>56,19%</b>
NAZARETH	263 045	400 427	<b>65,69%</b>
SAFAD	474 980	596 468	<b>79,63%</b>
TIBERIAS	231 526	398 932	<b>58,04%</b>
HAIFA	459 432	823 708	<b>55,78%</b>
JENIN	701 971	706 222	<b>99,40%</b>
NABLUS	1 402 607	1 402 622	<b>100,00%</b>
TULKARM	651 278	792 639	<b>82,17%</b>
HEBRON	1 985 588	1 991 720	<b>99,69%</b>
JERUSALEM	1 382 336	1 415 737	<b>97,64%</b>
RAMALLAH	682 485	682 631	<b>99,98%</b>
JAFFA	175 330	304 769	<b>57,53%</b>
RAMLA	682 032	804 191	<b>84,81%</b>
GAZA	830 663	879 923	<b>94,40%</b>

Source: Village Statistics data

We must now determine the total land owned by Palestinian in 1945, including the share of public land. In order to do that, for each sub-district and for each land quality type, we must add together land that was privately owned by "Arabs", land that was privately owned by "Others", the Palestinian share of "Public" land, and the Palestinian share of "Roads, Railways, etc..." land. Once this is done, we can calculate the share of public land and the total Palestinian land to be included in our final valuation.

Example:

For instance, in the sub district of Nazareth, we know from Village Statistics 1945 that the land ownership was organized as follows.

258 616 dunums of "Arab" land.  
 137 382 dunums of "Jewish" land.  
 88 354 dunums of "Public" land.  
 4 429 dunums of "Others" land.  
 8 752 dunums of "Road, Railways, etc..." land.

We also know that the Ratio of Palestinian Land in Nazareth is of 66% (See above Table 15 for the ratio).

Therefore, the total Palestinian land in Nazareth is:

Arab Land = 258 616 dunums  
 +  
 Other Land = 88 354 dunums  
 +  
 RoPL x Public Land = 66% x 4 429 dunums  
 +  
 RoPL x Road, Railways, etc... = 66% x 8 752 dunums  
 =  
 Total Palestinian Land = 321 840 dunums

The following table shows the total Palestinian land on a sub-district and land category basis.

TABLE 18: TOTAL PALESTINIAN RURAL LAND

Sub-district	Cat 1 to 2 (citrus)	Cat 3 (bananas)	Cat 4 (Built-on)	Cat 5 to 8 (plantations)	Cat 9 to 13 (taxable cereal)	Cat 14 to 15 (taxable cereal)	Cat 16 (Un- cultivable)	Total (in dunums)
ACRE	8 531	122	3 387	83 238	209 083	52 781	413 125	<b>770 267</b>
BEISAN	396	318	460	11 068	143 580	8 601	41 219	<b>205 641</b>
NAZARETH	59	0	958	19 925	185 643	5 467	109 787	<b>321 840</b>
SAFAD	168	0	2 446	77 355	140 526	54 240	278 390	<b>553 124</b>
TIBERIAS	102	7	1 160	18 442	139 078	8 100	88 082	<b>254 971</b>
HAIFA	395	6	2 067	30 032	291 075	29 904	200 923	<b>554 403</b>
JENIN	43	0	1 692	86 059	358 307	38 422	344 494	<b>829 016</b>
NABLUS	41	10	4 212	158 715	269 678	278 902	874 037	<b>1 585 595</b>
TULKARM	15 971	199	2 303	93 800	352 096	17 379	203 191	<b>684 939</b>
HEBRON	0	0	3 205	66 784	402 477	183 824	1 410 733	<b>2 067 023</b>
JERUSALEM	460	1 725	4 104	89 879	145 015	94 408	1 181 379	<b>1 516 970</b>

RAMALLAH	0	0	2 614	204 037	90 519	74 769	311 657	<b>683 596</b>
JAFFA	48 166	251	1 492	15 729	94 617	35	15 457	<b>175 748</b>
RAMLA	40 446	125	2 018	69 779	365 228	20 291	234 107	<b>731 993</b>
GAZA	26 525	13	2 997	78 815	727 199	32 538	167 624	<b>1 035 712</b>
<b>TOTAL FOR PALESTINE</b>	<b>141 304</b>	<b>2 776</b>	<b>35 114</b>	<b>1 103 657</b>	<b>3 914 120</b>	<b>899 663</b>	<b>5 874 203</b>	<b>11 970 838</b>

Source: Village Statistics 1945 data

Therefore, we can conclude that the total area of land owned by Palestinians in 1945 represents 11 970 838 dunums. We must now make several successive deductions to obtain the land that was lost by Palestinian refugees.

**Task 1.2: Account for the land that was rightfully sold by its Palestinian owners to Jews between 1945 and 1948**

For informational purposes, one may consult Table 11 of section 3 that shows the purchase of land by Jews from 1920 to 1945: On average, 36 091 dunums were sold annually during that period. For the four years between 1945 and 1948, a total of 144 364 dunums should be deducted from the final scope of land to be included in our review.

However, one may imagine that this number was increasing in the late years of the Mandate as there was a massive Jewish immigration in Palestine. We must also stress that the land sold was usually high quality lands owned by great Arab landowners, used to grow citrus and orchards in general, and therefore of high market values.

In the next section, we propose to deduct a total of 144 364 dunums to account for land transfers from Arabs to Jews between 1945 and 1948. Should more precise information be made available to us, we will make further correction to our estimate.

**Task 1.3: Account for the land that was not included in Israel's territory in 1949**

As the conflict between Israel and the Arabs stopped in 1949, an "Armistice Line of 1949" also known as "Green Line" effectively defined the new borders of Israel, dividing Palestine into the Gaza Strip (occupied by Egypt), Israel and the West Bank (occupied by Jordan).

Obviously, the Village Statistics 1945 does not account for this division of Palestine by the Armistice Line in 1949 and therefore, in order to determine the land actually lost by the refugees in 1949, we must only consider the land that was confiscated by Israel as a consequence of the war. Thus, we must exclude from the scope of this study all the land that was not attached to the newly created state but remained in the Gaza Strip and the West-Bank.

Atif Kubursi presents in the Appendix V of Palestinian's Rights and Losses, a table called "Arab Town and Village Lands outside the Territory occupied by Israel under the General Armistice Agreement of 1949". It consists of a list of villages and towns in Sub-districts that were divided

by the AL49 and details for each of them the number of dunums inside and outside Israel and the village's total area, which is consistent with the one we can find in Village Statistics 1945. In Appendix 7 we have reproduced the table.

From a standard valuation perspective, we would like to collect information on a village basis and made appropriate adjustments for land falling outside the Armistice Line. However, the different spelling of villages between one publication and the other would create confusion and difficulties.

We are advocating another approach based a sub-district ratio approach. For each sub-district, we have calculated the total area in dunums falling outside of Israel in 1949 **(A)** that remained either in the no man's land, the Gaza Strip or the West Bank. We then have divided it by the total area of the sub-district **(B)** which is available in Village Statistics 1945. Thus, to obtain the Ratio of Land that was not in Israel in 1949, we have divided **(A)** by **(B)**. The following table presents our conclusions on a Sub-district basis (the Sub-district not mentioned have none of their land outside of Israel in 1949, and therefore are not subject to any deduction).

TABLE 19: RATIO OF ARAB LAND OUTSIDE ISRAEL IN 1949

Sub-district	Area Outside Israel's Territory (in dunums) – Area in West Bank and Gaza Strip	Total Sub-District Area (in dunums)	Ratio of Arab land not in Israel in 1949 and not to be included in our valuation (Located in West Bank and Gaza Strip)
	<b>(A)</b> From Atif Kubursi	<b>(B)</b> From Village Statistics	<b>(=A/B)</b>
BEISAN	411	367 087	<b>1,00%</b>
JENIN	577 829	835 147	<b>69,19%</b>
NABLUS	1 568 304	1 591 168	<b>98,56%</b>
RAMALLAH	680 324	686 564	<b>99,09%</b>
JERUSALEM	1 303 700	1 570 785	<b>83,00%</b>
HEBRON	933 676	2 076 185	<b>44,97%</b>
RAMLE	76 318	870 192	<b>8,77%</b>
TULKARM	332 140	835 977	<b>39,73%</b>
GAZA STRIP	346 616	1 111 501	<b>31,18%</b>

Source: Summary of our calculations made from Atif Kubursi's Appendix V of Palestinian's Rights and Losses, pages 224-229. The full table from which this summary is derived can be consulted in Appendix 7 of this report.

We have then applied this ratio to the total Palestinian land of Table 16 in order to determine precisely the scope of Palestinian land that was not in Israel in 1949. Finally we have deducted this result from the total area of Palestinian land of the Sub-district to arrive at the desired result.

Example: Sub district of Jenin:

We know from Atif Kubursi's Appendix V of Palestinian's Rights and Losses that a total of 577 829 dunums were situated outside the Territory of Israel in 1949 (A). We also know from that same document and from Village Statistics 1945 that the total area of the Sub-district is 835 147 dunums (B). Therefore, the ratio of land that was outside Israel is  $A / B = 69\%$ .

We also know from table 16 of this section that the total Palestinian Land in Jenin was 829 016 dunums. Thus, the total Palestinian land that fell outside Israel's borders represents 69% of 829 016 dunums = 572 021 dunums. So in conclusion, in Jenin the land that was actually lost by the Palestinian refugees in 1949 amounts to  $829\ 016 - 572\ 021 = 258\ 896$  dunums.

The following table shows in each sub-district and on a land quality basis the total Palestinian Land inside Israel and for which refugees are entitled to reparation. To obtain it, we have applied in each separate cell the method described above.

TABLE 20: TOTAL PALESTINIAN LAND INSIDE ISRAEL'S TERRITORY IN 1949

Sub-District	Total Palestinian Land inside Israel's Territory in 1949 (in dunums)							
	Cat 1 to 2 (citrus)	Cat 3 (banana)	Cat 4 (Built-on)	Cat 5 to 8 (plantation)	Cat 9 to 13 (taxable cereal)	Cat 14 to 15 (taxable cereal)	Cat 16 (Uncultivable)	Total
ACRE	8 531	122	3 387	83 238	209 083	52 781	413 125	<b>770 267</b>
BEISAN	392	314	456	10 957	142 144	8 515	40 807	<b>203 585</b>
NAZARETH	59	0	958	19 925	185 643	5 467	109 787	<b>321 840</b>
SAFAD	168	0	2 446	77 355	140 526	54 240	278 390	<b>553 124</b>
TIBERIAS	102	7	1 160	18 442	139 078	8 100	88 082	<b>254 971</b>
HAIFA	395	6	2 067	30 032	291 075	29 904	200 923	<b>554 403</b>
JENIN	13	0	521	26 516	110 398	11 838	106 142	<b>255 429</b>
NABLUS	1	0	61	2 281	3 875	4 008	12 559	<b>22 784</b>
TULKARM	9 626	120	1 388	56 532	212 206	10 474	122 462	<b>412 807</b>
HEBRON	0	0	1 764	36 751	221 480	101 157	776 316	<b>1 137 467</b>
JERUSALEM	78	293	698	15 282	24 657	16 053	200 873	<b>257 935</b>
RAMALLAH	0	0	24	1 854	823	680	2 833	<b>6 213</b>
JAFFA	48 166	251	1 492	15 729	94 617	35	15 457	<b>175 748</b>
RAMLA	36 899	114	1 841	63 660	333 196	18 511	213 575	<b>667 796</b>
GAZA	18 254	9	2 062	54 237	500 426	22 391	115 351	<b>712 730</b>
<b>PALESTINE</b>	<b>122 683</b>	<b>1 237</b>	<b>20 324</b>	<b>512 792</b>	<b>2 609 227</b>	<b>344 154</b>	<b>2 696 681</b>	<b>6 307 099</b>

Source: Our calculations are made from raw data extracted from Atif Kubursi's Appendix V of Palestinian's Rights and Losses, pages 224-229 (See our Appendix 7) and from Village Statistics 1945 (See our Appendix 4).

NB: The result shown in this table for Jenin Sub-district slightly differs from the result found in the example given above because in this table we are calculating on a land category basis (which is more precise), whereas we only used total aggregated values before.

Therefore, we can conclude that the total area of land owned by Palestinians in Israel's Territory in 1949 represents 6 307 099 dunums.

**Task 1.4: Account for the land that remained owned by Palestinians after 1949 in Israel**

We must finally account for the land that remained owned by Palestinians after 1949 in Israel. Even though the great majority of Arab land owners fled during the war, some remained on their land in the territory occupied by Israel, and some are still there to this day. As noted by Atif Kubursi, the estimated number of Arabs who remained in Israeli-occupied territory after the hostilities had ceased and the joining of families arranged by the United Nations, was estimated to be 170,000 persons (Palestinian Rights and Losses 1948, page 242). As a result, we cannot consider that they are entitled to reparation and therefore we have excluded their land from our valuation.

Atif Kubursi presents in the Appendix VII of Palestinian's Rights and Losses a table called "Palestine, List of Towns and Villages Part of whose Arab Inhabitants remained in their Homes in Israeli-occupied Territory in 1948". It lists each relevant village and town, with details regarding land area (in dunums) and population (See Appendix 8). Again, the best approach would be village by village, but for the same practical reasons as before, we also chose to adopt a percentage based method. We have used Atif Kubursi's data from Appendix VII of Palestinian's Rights and Losses to calculate in each sub-district the total area of land still held by its Arab owners in Israel in the aftermath of the war. We have then divided in each Sub-district this area of land by the Total Palestinian Land inside of Israel's Territory in 1949, as found in Table 21 of this Section.

TABLE 21: RATIO OF LAND KEPT BY PALESTINIANS IN ISRAEL AFTER THE WAR

Sub-District	Area still held by its Arabs owners in 1949 (in dunums)	Total Palestinian land in Israel's territory (in dunums)	Ratio of land kept by Palestinians in Israel in 1948
	(A) From Atif Kubursi	(B) From Village Statistics	(=A/B)
ACRE	501 710	770 267	<b>65,13%</b>
HAIFA	169 973	554 403	<b>30,66%</b>
JENIN	79 820	255 429	<b>31,25%</b>
JERUSALEM	11 234	257 935	<b>4,36%</b>
NAZARETH	178 906	321 840	<b>55,59%</b>
SAFAD	43 904	553 124	<b>7,94%</b>
TIBERIAS	56 780	254 971	<b>22,27%</b>
TULKARM	136 088	412 807	<b>32,97%</b>

Source: Summary of our calculations made from Atif Kubursi's Appendix VII of Palestinian's Rights and Losses, pages 242-245. The full table from which this summary is derived can be consulted in Appendix 8 of this report.

From Table 21, the total of Column (A) for the land of Arabs still living in Israel in 1948 is 1 178 415 dunums. It should be noted that Michael R. Fischbach presented a paper entitled The Usefulness of the UNCCP Archives for Palestinian Refugee Compensation/Restitution, Stocktaking Conference on Palestinian Refugee Research in Ottawa, June 2003. In this paper, he shows that the scope of land held by Arabs in Israel after 1948 is 1,012,059 dunums. This is a result which is consistent with the 1 178 415 dunums we arrived at. Professor Fischbach's analysis is derived from the following document: United Nations Secretariat Archives, Record Group DAG 13-3, UNCCP, Document: A/AC.25/W.83, "Initial Report of the Commission's Land Expert on the Identification and Valuation of Arab Refugee Property Holdings in Israel" (15 September 1961).

We have then applied this ratio to the total Palestinian land inside Israel's Territory (see Table 20 of this Section) for each category of land and in each sub-district where it is necessary, in order to determine precisely the scope of land that was kept by Palestinian owners in Israel's Territory. We finally have deducted this result from the total area of Palestinian land inside of Israel's Territory of the Sub-district.

Example: Sub-district of Tulkarm.

We know from Atif Kubursi's Appendix VII of Palestinian's Rights and Losses that a total of 136 088 dunums were kept by their Palestinian owners in Israel after 1949 **(A)**. We also know from our previous calculations shown in Table 18 of this Section that the Total Palestinian Land inside of Israel's Territory in 1949 is 412 807 dunums **(B)**.

Therefore, the ratio of land that was kept by its Palestinian owners in Israel in 1949 is  $A / B = 136\ 088 / 412\ 807 = 33\%$ .

Thus, the total Palestinian land that was kept by their Palestinian owners in Israel in 1949 represents 33% of 412 807 dunums = 136 226 dunums. So in conclusion, in Tulkarm the land that was actually lost by the Palestinian refugees in 1949 amounts to  $412\ 807 - 136\ 226 = 276\ 581$  dunums.

The following table presents the findings once we have deducted the land remaining owned by Arabs in Israel in 1948. To obtain it, we have applied the method described above.

TABLE 22: TOTAL LAND LOST BY 1948 REFUGEES

Sub-District	Total Land lost by the Palestinian refugees in 1948 (in dunums)							Total
	Cat 1 to 2 (citrus)	Cat 3 (bananas)	Cat 4 (Built-on)	Cat 5 to 8 (plantations)	Cat 9 to 13 (taxable cereal)	Cat 14 to 15 (taxable cereal)	Cat 16 (Un- cultivable)	
ACRE	2 974,37	42,54	1 180,89	29 021,34	72 897,69	18 402,51	144 037,94	<b>268 557,27</b>
BEISAN	392,04	314,50	455,64	10 957,08	142 144,09	8 514,66	40 806,82	<b>203 584,82</b>
NAZARETH	26,20	-	425,60	8 849,09	82 446,90	2 427,97	48 757,94	<b>142 933,72</b>
SAFAD	154,67	-	2 251,59	71 214,95	129 371,84	49 934,31	256 293,00	<b>509 220,36</b>
TIBERIAS	79,29	5,44	901,62	14 335,41	108 106,25	6 296,24	68 466,67	<b>198 190,91</b>
HAIFA	273,86	4,24	1 433,61	20 824,68	201 834,78	20 736,11	139 322,45	<b>384 429,72</b>
JENIN	9,11	-	358,41	18 229,65	75 899,44	8 138,92	72 973,47	<b>175 609,00</b>
NABLUS	0,59	0,14	60,52	2 280,63	3 875,09	4 007,64	12 559,31	<b>22 783,92</b>
TULKARM	6 452,50	80,40	930,23	37 895,62	142 249,02	7 021,22	82 090,34	<b>276 719,32</b>
HEBRON	-	-	1 763,63	36 750,73	221 479,99	101 157,23	776 315,63	<b>1 137 467,21</b>
JERUSALEM	74,81	280,54	667,35	14 616,80	23 583,43	15 353,39	192 124,37	<b>246 700,69</b>
RAMALLAH	-	-	23,76	1 854,44	822,70	679,56	2 832,57	<b>6 213,03</b>
JAFFA	48 165,78	251,33	1 492,15	15 729,28	94 617,23	35,00	15 456,85	<b>175 747,61</b>
RAMLA	36 899,14	114,04	1 840,84	63 659,53	333 196,14	18 511,15	213 574,97	<b>667 795,82</b>
GAZA	18 253,65	8,95	2 062,21	54 236,81	500 425,77	22 391,46	115 351,42	<b>712 730,26</b>
<b>PALESTINE</b>	<b>113 756,01</b>	<b>1 102,11</b>	<b>15 848,05</b>	<b>400 456,04</b>	<b>2 132 950,35</b>	<b>283 607,36</b>	<b>2 180 963,76</b>	<b>5 128 683,67</b>

Source: Our calculations made on raw data extracted from Atif Kubursi's Appendix VII of Palestinian's Rights and Losses (See our Table 19), Table 20 and Table 21 of this Section.

NB: The result shown in this table for Tulkarm Sub-district slightly differs from the result found in the example given above because, in this above table, we are calculating on a land category basis (which is more precise), whereas we only used total aggregated values before.

**Task 1.5: Determine scope of land for Beersheba sub-district**

We now provide an estimate of the scope of land regarding valuation of southern land. The Beersheba district was the largest district of Palestine covering 12,577,000 dunums.<sup>12</sup> There are a variety of sources for population and land ownership in the Beersheba district.

The province of Beersheba is particularly difficult to deal with because, as it is almost exclusively comprised of desert and populated by Bedouin nomads, almost no official records of property have been kept. Furthermore, the rural tax law that applied in the rest of Palestine was not used there, another more archaic system being preferred. As mentioned in Atlas of Palestine (p. 31), the land ownership had always been held by customary law, on which basis individual plots were sold, inherited, mortgaged, rented or divided and taxes paid.

The scope of land has been determined in various past studies. We include a summary of the data collected during our review of the historical record:

TABLE 23: SCOPE OF LAND IN THE BEERSHEBA SUB DISTRICT ACCORDING TO VARIOUS STUDIES

	UNCCP Berncastle	UNCCP Jarvis	Yosef Weitz	Ministry of Agriculture Israel	A. Kubursi
<b>Scope of land</b>					
Cultivable	1 834 849	1 811 000	1 230 000		
Uncultivable	10 303 110	10 580 000			
Type not disclosed				10 800 000	12 450 000
<b>Total</b>	12 137 959 (1)	12 391 000			

(1) Please note that the valuation has been based on expert opinion at the rate of LP3.60 per dunum.

As described in the Atlas of Palestine, the 1920 Land Commission estimated in its report that the cultivated land in Beersheba, on the basis of agricultural production and taxes, was 2,829,880 dunums plus the major share of 1,059,000 dunums (grazing land). The report used double the commonly accepted crop yield/dunum value, hence the real area should be double that calculated. Further, the cultivated area was estimated on the basis that the land was cultivated one year and left fallow for another year. While this may have been acceptable for moderate rainfall, it was not so for light rainfall as in Beersheba where the fallow years may be one, two or three.

Therefore the cultivated area in Beersheba could be at least double this figure, or about 5,500,000 dunums. Other estimates for cultivated areas, based on rainfall figures less than 100 mm/ year give a minimum of 3,750,000 dunums and a maximum of 5,500,000 dunums plus about 750,000 dunums for grazing. Further evidence is provided by the aerial survey conducted by Royal Air Force in 1945-1946 which covered the heavily populated northern half of the district. The photographs show intensive and close cultivation everywhere.<sup>13</sup>

<sup>12</sup> See Atlas of Palestine, p. 30.

<sup>13</sup> See Atlas of Palestine, p. 31.

It should be noted that the Beersheba sub district presented problems for valuation for many reasons:

1. First, the identification of abandoned land has always been a problem in past studies. For instance, the Registers of Deeds cannot be used for Southern land because it provides an under estimation of the full scope of abandoned land (only 64,000 dunums were identified as being registered in the names of Arabs). The UNCCP in 1964 (Jarvis) argued that, even if not registered, some additional 1,811,000 dunums should be considered as cultivable land by Bedouins at the time of the war in 1948. The UNCCP also noted that 10 580 000 dunums should be registered as non cultivable land.
2. Second, sales and tax data are not reliable for this region. The lack of valuation data would explain why past studies are presenting information gaps in respect of Southern land. Once a value is proposed in a past estimate, its origin is usually unclear. For instance, the UNCCP valuation report arrived at the following conclusion: "In view of the conflicts in the scanty evidence as to what actually was the value of the cultivable land in the Negev, the Office based its valuation on expert opinion and arrived at a figure of £P3.6 per dunum" (document A/AC.25/W.81/Rev.2, Annex V, p.6). The UNCCP staff is said to have faced insurmountable problems dealing with grazing land in the area and could not find any sales data from which to make any estimates.

We have decided to use the information provided in Atlas of Palestine for determining the scope of land in the Beersheba sub-district. The total Beersheba land is estimated at 12,577,000 dunums. The information provided in Table 2.19 of the Atlas (p. 31) can be summarized as follows:

TABLE 24: SCOPE OF LAND IN THE BEERSHEBA SUB-DISTRICT

Beersheba Land	(in dunums)
<b>Grazing</b>	<b>7 680 350</b>
<b>Cultivated land</b>	
<i>Wheat</i>	536 650
<i>Wheat/Barley</i>	1 066 650
<i>Barley</i>	3 293 350
<b>Total cultivated land</b>	<b>4,896,650</b>

Source: Atlas of Palestine, p. 31

From this table, we concluded that cultivable land is equal to 4 896 650 dunums, grazing land being equivalent to 7 680 350 dunums. Please note that it is not the case that all of the 4.9 million dunum are cultivated but they have a potential to be cultivated and therefore should be valued as such. However, we cannot assign the same value to cultivable and grazing land.

As a result, we have decided to value separately the land related to grazing (7,680,350 dunums) and the cultivated land (4,896,650 dunums).

**Task 1.6: Total aggregate scope of land to be included**

Therefore, we can conclude that the total area of land lost by the refugees in 1948 represents a grand total of **5,128,684 dunums**. However, we have to deduct the finding of Task 1.2 which represents a total of 144,364 dunums to account for land transfers from Arabs to Jews between 1945 and 1948. The final result for the scope of land to be included in our valuation is:

**5,128,684 dunums**  
 - **144,364 dunum**  
 =====  
**4,984,320 dunums**

Please note that we have run another simulation by excluding public urban land and urban roads and railways. In doing so, we obtained **4,387,828 dunums** of urban lands were lost by Palestinian refugees because of the 1948 war (If necessary, we will make this simulation available in our report).

For informational purposes, we propose in the following table a comparison between our own conclusions and those reached in previous studies that had the same objective as ours (determining the scope of lost rural land at the exclusion of Beersheba).

TABLE 25: BENCHMARK ON SCOPE OF RURAL LAND FROM OTHER STUDIES (EXCLUDING BEERSHEBA)

Study	Overall scope of rural land (in dunums)
M. Sayigh's Study	6 606 250
Palestinian Rights And Losses in 1948, Atif Kubursi	5 789 521
Survey of Palestine	5 484 700
<b>Thierry Sénéchal</b>	<b>4,984,320</b>
Frank Lewis' Study	4 800 000
Berncastle - Global Estimate, 1951	4 186 012
Jarvis - Technical Program, 1964	4 182 042
Minister of Agriculture	4 093 000
Custodian on Absentee Property	4 063 669
All that Remains, Walid Khalidi	3 873 870
Minister of Foreign Affairs	3 600 000
Weitz-Danin-Lifshits Committee	2 008 114

We are also proposing to value the following scope of land for the Beersheba sub district:

4 896 650 dunums of cultivable land  
 12 577 000 dunums of grazing land

## STEP 2: VALUES OF RURAL LAND

In this second step, we will try to determine the market values in 1948 of the different types of rural lands in Palestine, on a Sub-district basis.

**Task 2.1: Determine the value of the cultivable and uncultivable lands**

We have not been able to obtain any original data regarding the market values of the land in 1948 (such as original sale records for instance), and therefore we have had to use several summary tables published in past estimates. For the purpose of this report, we have been using Atif Kubursi's table of Weighted Market Values, as it appears in Part V of *Palestinian Rights and Losses in 1948*, Table 20-3, pages 170-171.

Dr. Kubursi and his team identified and collected over 4,000 rural sales transactions which they then computer-coded by sub-district, village, parcel number, block number, area of parcel, tax category, date of sale by month, day and year, share sold, value realized, private or public ownership, Jewish or Arab sale, and type of sale.

In "Palestinian Rights and Losses in 1948", Dr. Kubursi calculated the sale value of three farms in different locations and producing different crops, by capitalizing the streams of net income and thus finds these sale values to be consistent with the market data he found (cf. *Palestinian Rights and Losses*, p. 174). Unfortunately, these original 4,000 sales records were later accidentally destroyed, but Dr. Kubursi has kindly provided us with a summary of the resultant market values his team derived, which are shown in the following table:

Atif Kubursi's market values are the result of the compilation of several thousand original sales records that were computer-coded by him. In Part V of *Palestinian Rights and Losses in 1948*, he proposes two different sets of values called respectively "simple averages" and "weighted averages", but he however proposes to choose the "weighted average" figures which he says will provide "lower but more realistic and defensible estimates" (p.167). Consistently with that opinion, we have chosen to use these weighted values in our valuation as well. The following table, directly extracted from Table 20-3 (pages 170-171) of his book present these values.

TABLE 26: ATIF KUBURSI'S WEIGHTED MARKET VALUES

Sub-district	Cat 1 to 2 (citrus)	Cat 3 (bananas)	Cat 5 to 8 (plantations)	Cat 9 to 13 (taxable cereal)	Cat 14 to 15 (taxable cereal)	Cat 16 (Uncultivable)	Averages
ACRE	£105,70	£105,70	£67,86	£27,72	£14,70	£72,67	<b>£65,73</b>
BEISAN	£164,16	£164,16	£22,49	£21,35	£19,46	£68,27	<b>£76,65</b>
NAZARETH	£76,06	£76,06	£51,90	£29,06	£8,69	£39,93	<b>£46,95</b>
SAFAD	£52,68	£52,68	£51,96	£14,53	£19,52	£72,67	<b>£44,01</b>
TIBERIAS	£24,93	£24,93	£32,18	£11,53	£19,52	£68,27	<b>£30,23</b>
HAIFA	£77,01	£77,01	£55,38	£34,60	£7,29	£39,93	<b>£48,54</b>
JENIN	£70,49	£70,49	£47,56	£34,63	£7,55	£39,93	<b>£45,11</b>

NABLUS	£164,16	£164,16	£78,27	£31,47	£19,46	£31,31	<b>£81,47</b>
TULKARM	£63,41	£63,41	£26,33	£34,74	£18,78	£68,27	<b>£45,82</b>
HEBRON	£164,16	£164,16	£78,27	£31,47	£19,46	£31,31	<b>£81,47</b>
JERUSALEM	£164,16	£164,16	£78,27	£31,47	£19,46	£31,31	<b>£81,47</b>
RAMALLAH	£164,16	£164,16	£78,27	£31,47	£19,46	£31,31	<b>£81,47</b>
JAFFA	£279,98	£279,98	£440,69	£343,52	£439,36	£250,23	<b>£338,96</b>
RAMLA	£125,98	£125,98	£53,20	£39,37	£24,07	£26,06	<b>£65,78</b>
GAZA	£125,98	£125,98	£53,20	£39,37	£24,07	£26,06	<b>£65,78</b>
<b>PALESTINE</b>	<b>£121,53</b>	<b>£121,53</b>	<b>£81,06</b>	<b>£50,42</b>	<b>£45,39</b>	<b>£59,84</b>	

Source: Part V of Palestinian Rights and Losses in 1948, Table 20-3, pages 170-171.

For benchmarking purposes, we propose to present the values found by the UNCCP as they appear in Fischbach's Records of Dispossession, p. 270. Please note that the author provides a range of value of reach sub-district and land category. We have only provided the average of this range in the following table.

TABLE 27: UNCCP VALUES FOR RURAL LAND

Sub-District	Cat 1 to 2 (citrus)	Cat 3 (bananas)	Cat 5 to 8 (plantations)	Cat 9 to 13 (taxable cereal)	Cat 14 to 15 (taxable cereal)	Cat 16 (Uncultivable)	Average
ACRE	£88,50	£57,50	£69,40	£23,55	£15,00	£16,50	<b>£45,08</b>
BEISAN	£65,00	£53,00	£32,25	£20,75	£16,50	£20,25	<b>£34,63</b>
NAZARETH	£60,00	£64,88	£39,50	£20,00	£12,00	£17,00	<b>£35,56</b>
SAFAD	£77,50	£64,88	£48,50	£21,25	£22,00	£17,00	<b>£41,86</b>
TIBERIAS	£67,50	£48,00	£29,15	£12,75	£12,30	£11,50	<b>£30,20</b>
HAIFA	£72,15	£52,00	£40,70	£25,85	£17,50	£16,25	<b>£37,41</b>
JENIN	£60,00	£64,88	£37,50	£17,50	£13,00	£16,75	<b>£34,94</b>
NABLUS	£82,83	£64,88	£25,00	£25,00	£22,00	£24,00	<b>£40,62</b>
TULKARM	£103,20	£78,00	£49,00	£46,15	£22,00	£26,50	<b>£54,14</b>
HEBRON	£60,00	£64,88	£37,00	£19,00	£17,50	£18,00	<b>£36,06</b>
JERUSALEM	£82,83	£64,88	£71,50	£41,50	£41,00	£41,00	<b>£57,12</b>
RAMALLAH	£82,83	£64,88	£49,10	£22,00	£24,00	£21,00	<b>£43,97</b>
JAFFA	£133,65	£97,50	£99,00	£84,00	£20,19	£79,50	<b>£85,64</b>
RAMLA	£120,00	£72,50	£67,50	£53,40	£25,00	£49,00	<b>£64,57</b>
GAZA	£86,50	£60,50	£41,45	£33,60	£22,85	£24,00	<b>£44,82</b>
<b>PALESTINE</b>	<b>£82,83</b>	<b>£64,88</b>	<b>£49,10</b>	<b>£31,09</b>	<b>£20,19</b>	<b>£26,55</b>	

Source: Michael Fischbach, Records of Dispossession, p. 270

As it is obvious, the values of Atif Kubursi's work are significantly higher than those used by the UNCCP in its estimate, both on a sub-district and on a land quality basis. As we were unable to procure the original documents from which both these ranges of values were produced – the original sales records both paper and computerized versions that were used by Atif Kubursi were

destroyed in a flooding, and we were not allowed to access the original UNCCP files – we cannot guaranty the reliability of these two tables, nor account for the existing discrepancies between them.

Because we believe that UNCCP are underestimated as they are based on the tax assessment, we have decided to use Atif Kubursi's values. Our final values are obtained from the following table (We have multiplied the findings of Table 22 and Table 26):

TABLE 28: SUMMARY VALUES FOR RURAL LAND BASED ON KUBURSI DATA

Sub-District	Total Value of the rural land lost by the Palestinian refugees in 1948						Total
	Cat 1 to 2 (citrus)	Cat 3 (bananas)	Cat 5 to 8 (plantations)	Cat 9 to 13 (taxable cereal)	Cat 14 to 15 (taxable cereal)	Cat 16 (Uncultivable)	
ACRE	£314 391	£4 496	£1 969 388	£2 020 724	£270 517	£10 467 237	<b>£15 046 753</b>
BEISAN	£64 357	£51 628	£246 425	£3 034 776	£165 695	£2 785 882	<b>£6 348 763</b>
NAZARETH	£1 993	£0	£459 268	£2 395 907	£21 099	£1 946 905	<b>£4 825 172</b>
SAFAD	£8 148	£0	£3 700 329	£1 879 773	£974 718	£18 624 813	<b>£25 187 780</b>
TIBERIAS	£1 977	£136	£461 314	£1 246 465	£122 903	£4 674 219	<b>£6 507 013</b>
HAIFA	£21 090	£327	£1 153 271	£6 983 483	£151 166	£5 563 145	<b>£13 872 482</b>
JENIN	£642	£0	£867 002	£2 628 397	£61 449	£2 913 831	<b>£6 471 321</b>
NABLUS	£97	£24	£178 505	£121 949	£77 989	£393 232	<b>£771 795</b>
TULKARM	£409 153	£5 098	£997 792	£4 941 731	£131 859	£5 604 307	<b>£12 089 939</b>
HEBRON	£0	£0	£2 876 480	£6 969 975	£1 968 520	£24 306 442	<b>£36 121 417</b>
JERUSALEM	£12 281	£46 053	£1 144 057	£742 171	£298 777	£6 015 414	<b>£8 258 753</b>
RAMALLAH	£0	£0	£145 147	£25 890	£13 224	£88 688	<b>£272 949</b>
JAFFA	£13 485 455	£70 367	£6 931 735	£32 502 910	£15 378	£3 867 767	<b>£56 873 611</b>
RAMLA	£4 648 554	£14 366	£3 386 687	£13 117 932	£445 563	£5 565 764	<b>£27 178 867</b>
GAZA	£2 299 595	£1 127	£2 885 398	£19 701 762	£538 962	£3 006 058	<b>£28 432 903</b>
<b>PALESTINE</b>	<b>£21 267 732</b>	<b>£193 621</b>	<b>£27 402 796</b>	<b>£98 313 846</b>	<b>£5 257 818</b>	<b>£95 823 704</b>	<b>£248 259 518</b>

We conclude that the value of rural land is £P248 259 518 (excluding village built-ups and Beersheba land). However, we must derive a methodology to deduct a total of 144 364 dunums to account for land transfers from Arabs to Jews between 1945 and 1948 (See above Task 1.2). We have decided to use an average of total value from Table 26. We arrive at a global average of £P79.96 per dunum of rural land. The 144 364 dunums can therefore be estimated as follows:

$$144\,364 \text{ dunums} \times \text{£}79.96 = \text{£}11\,543\,345$$

As a result, we deduct £P11 543 345 from the total in Table 28 and we obtain a total of **£P236 716 172** (excluding built-up and Beersheba lands).

### Task 2.2: Determine the value of the village Built-up land

We must now and finally determine a range of values for the village Built-up land in Palestine in 1948. Village built-on areas which were classified under tax category 4 present special difficulties arising from the following circumstances<sup>14</sup>:

- The detailed survey and settlement of title of these areas were abandoned at an early stage in the process of land settlement under the British Mandatory Government. In the vast majority of cases therefore, no data is available as to buildings and since they were not subject to the urban property tax, no N.A.V. is available to form a basis of valuation as in the case of urban areas.
- There was practically no market in the ordinary commercial sense for village houses and the matter is further complicated by the fact that the few sales transactions available are not representative of the typical built-on area. Also, even had a large volume of sales data been available, the difficulty of identification of the property sold would preclude their use in valuation.
- Village Development Survey plans that were drawn on a large cartographic scale, prepared in 1946, were available in the case of a substantial number of villages and approximately 50 of these were studied in great detail. This study revealed that the built-on areas ran remarkably true to type. In each of the villages studied, the area of the buildings were accurately measured, both in the case of buildings within the built-on area and those which had been erected on land of other tax category outside the built-on area.

As done in the above section, we have decided to use Atif Kubursi's "weighted" market values as they appear in Part V of Palestinian Rights and Losses in 1948, Table 20-3, pages 170-171. The following table presents the "weighted" market values of Atif Kubursi.

TABLE 29: MARKET VALUES FOR BUILT-UP AREAS IN RURAL LAND

Sub-district	Scope of land Cat 4 in dunums (See Table 22)	Cat 4 (Built-on) in £P	Total Cat 4 (Built-on) in £P
ACRE	1 180,89	102,74	121 325
BEISAN	455,64	299,65	136 533
NAZARETH	425,6	242,11	103 042
SAFAD	2 251,59	498,26	1 121 877
TIBERIAS	901,62	500,35	451 126
HAIFA	1 433,61	207,93	298 091
JENIN	358,41	207,59	74 402
NABLUS	60,52	299,65	18 135
TULKARM	930,23	70	65 116
HEBRON	1 763,63	299,65	528 472
JERUSALEM	667,35	299,65	199 971
RAMALLAH	23,76	299,65	7 120
JAFFA	1 492,15	1 344,92	2 006 822
RAMLA	1 840,84	286,35	527 125

<sup>14</sup> This is extensively discussed in UNCCP document A/AC.25/W.81/Rev.2, Annex V, p.5.

GAZA	2 062,21	286,35	590 514
<b>PALESTINE</b>	<b>15 848,05</b>		<b>6 249 669</b>

Source: Part V of Palestinian Rights and Losses in 1948, Table 20-3, pages 170-171.

NB: the author provides no explanation to justify the steep increase of value in the Jaffa Sub-district.

We conclude that the value of village built-ups related to rural land is **£P6 249 669**.

Please note that the UNCCP had estimated that in small villages in 1947 the capital value of a built dunum was on average £P 108. Based on tax assessments from larger villages where the urban property tax applied, they estimated a scale of values ranging from £P108 to £P190 with an average £P150 per built-up dunum, this including both building and land values. Again, we can see that Atif Kubursi's values are significantly higher (his overall average is P£349.66) than UNCCP's.

### Task 2.3: Determine the value of land for Beersheba sub-district

We are referring to Atif Kubursi's value for arriving at a global valuation of Beersheba land.

For cultivable land, we have first considered the lowest value provided by A. Kurbursi, which is related to the Gaza sub-district for the amount of £P26.06 per dunum (See Table 26). Please note that this value is consistent with the UNCCP value of £P24 per dunum for the same district. However, we cannot assume that such value is representative of the Beersheba sub-district. We admit that uncultivable/grazing land still present a development potential and having as such an economic value. But we have to also admit that such land is constrained. As a result we have used the original value of £P3.60 provided by UNCCP.

The results are as follows:

TABLE 30: TOTAL VALUATION OF BEERSHEBA LAND (CULTIVABLE AND GRAZING)

Type of land	Area in dunums	Value in £P	Total value in £P
Cultivable land	4 896 650	26,06	127 606 699
Grazing land	7 680 350	3,6	27 649 260
<b>Total land</b>	<b>12 577 000</b>		<b>155 255 959</b>

We conclude that the value of Beersheba land is **£P155 255 959 (in 1948 value)**.

### STEP 3: TOTAL VALUATION OF THE RURAL LANDS

The final data for rural land can be obtained from the following table:

SUMMARY TABLE FOR RURAL LAND	
Rural land (excluding village built-ups and Beersheba land).	<b>£P236 716 172</b>
Village built-ups related to rural land	<b>£P6 249 669</b>

Beersheba land	£P155 255 959
TOTAL	£P398 221 800

Therefore, we can conclude that the overall value of the rural land lost by Palestinian refugees in 1948 is **£P398 221 800** (in 1948 values).

#### 4.7. LIMITATIONS AND DIFFICULTIES

We believe that reliable information is available concerning the scope of abandoned land (except for land transfers from Arabs to Jews between 1945 and 1948). However it should be noted that market data could not be obtained from independent sources.

#### 4.8. AUDIT TRAIL

Evidence type	Reference (Author/Publication)	Page	Remarks
Total scope of rural land on a village basis and distributed among all 17 British land categories.	<i>Village Statistics 1945</i>	n.a. <a href="http://www.badil.org/Refugees/facts&amp;figures.htm">http://www.badil.org/Refugees/facts&amp;figures.htm</a> .	Statistical data, used to determine scope of land.
Arab Town and Village lands Land outside the Territory occupied by Israel under the General Armistice Agreements of 1949	Sami Hadawi and Atif Kubursi, <i>Palestinian Rights And Losses in 1948, 1988</i>	Appendix V, Pages 224-229	Data used to calculate ratios for each Sub-district
Town and Village part of whose Arab Inhabitants remained in their homes in Israeli-occupied Territory in 1948	Sami Hadawi and Atif Kubursi, <i>Palestinian Rights And Losses in 1948, 1988</i>	Appendix VII, Pages 242-245	Data used to calculate ratios for each Sub-district
Benchmark for the scope of lost land.	Yusif Sayigh		Data used to benchmark our conclusions regarding the scope of lost rural lands.

Benchmark for the scope of lost land.	V. W. Shaw, <i>A Survey of Palestine</i> , Vol. 1 and 2, 1991		Data used to benchmark our conclusions regarding the scope of lost rural lands.
Benchmark for the scope of lost land.	Frank Lewis' Study		Data used to benchmark our conclusions regarding the scope of lost rural lands.
Benchmark for the scope of lost land.	"Berncastle - UNCCP Global Estimate" - UNCCP A/AC.25/W.83, 5 October 1961 and A/AC.25/W.84	n.a.	Data used to benchmark our conclusions regarding the scope of lost rural lands.
Benchmark for the scope of lost land.	"Jarvis - UNCCP Technical Program" - «Preliminary considerations in connection with the valuation of property abandoned by Arab refugees», 1st May 1951, W/63	n.a.	Data used to benchmark our conclusions regarding the scope of lost rural lands.
Benchmark for the scope of lost land.	Michael R. Fischbach, <i>Records of Dispossession</i> , 2003	Page 270	Data used to benchmark our conclusions regarding the scope of lost rural lands.
Benchmark for the scope of lost land.	Walid Khalidi, <i>All that Remains</i>		Data used to benchmark our conclusions regarding the scope of lost rural lands.
Benchmark for the scope of lost land.	<i>Minister of Foreign Affairs</i>		Data used to benchmark our conclusions regarding the scope of lost rural lands.
Benchmark for the scope of lost land.	Weitz-Danin-Lifshits Committee		Data used to benchmark our conclusions regarding the scope of lost rural lands.
Benchmark for the value of Village Built-up lands (Cat. 4).	UNCCP, <i>Document A/AC.25/W.81/Rev.2</i> , 1961	Annex V, page 5	Data used to benchmark Atif Kubursi's market values regarding the Village Built-up lands.

#### 4.9. ADDRESSING THE GAPS AND RECOMMENDATIONS

Given the objectives and scope of the review, the majority of valuation data were sought from the historical records, except for capitalization figures that we obtained from various contemporaneous databases. In the almost 60 years since the 1948 conflict, many studies have been written on the subject by various groups or individuals such as the United Nations Conciliation Commission for Palestine, the Israeli State itself, the Arab League and private researchers.

Overall, the difficulties that we encountered can be largely attributed to the following factors:

1. The non-availability of some key underlying figures, i.e. market and sales data. To fully understand and verify the accuracy of valuation methods, we would require access to the full range of data sheets and methodologies that have been used by other valuers. For instance, market data available to some researchers has not been made available to us for audit purpose.
2. Sufficient appropriate valuation evidence may not be available for many loss categories, including: communal-collectively owned land, exact number of buildings in urban areas, etc.
3. Partial or fractional interests in property make it difficult to obtain confirmation of absolute ownership. The historical records (such as title deeds and tax documents) do not always disclose shareholders for property held in common (land, corporations, joint tenancies...).

## SECTION 5 – VALUATION OF URBAN PROPERTY

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### 5.1. SUMMARY OF FINDINGS

Please find attached an estimation related to the loss of urban lands and buildings in 1948. The loss of such property represents a grand total of **£P126,830,885** (in 1948 value). This value represents the real estate loss for privately owned area of urban lands and for the buildings themselves that existed in the thirteen urban areas of Palestine. As it will be noted, the major losses are concentrated in a few urban zones, mostly in Haifa, Jerusalem, Jaffa, and Nazareth.

### 5.2. OBJECTIVES AND SCOPE OF WORK

In this study, we carry out a valuation of urban property. Extensive information on urban land holdings and buildings in Palestine in 1947 was collected by the UN land experts and under British Mandate as well. In our analysis, we do not include the moveable items contained in the buildings nor for the loss of income that resulted of the dispossession – in the case of shops for instance. These aspects are thoroughly covered in other section of the report. Please note that we have excluded religious buildings as well as all publicly owned urban building such as schools, town halls, telecommunication infrastructure or roads. Beersheba urban areas are however covered in this section (Beersheba rural land being covered into a dedicated section).

We have been seeking to develop market values for our work. First, we have been extracting cost data from A Survey of Palestine, which provides the cost of construction excluding the cost of land (See page 812, A Survey of Palestine). This cost data are represent market value in 1945 and therefore can be adjusted to reach fair market value in 1948. Second, we have been referring to Atif Kubursi's market values as developed in An Economic Assessment of Total Palestinian Losses (Part V of "Palestinian Rights and Losses in 1948"). The author proposed a valuation based on the application of 1947 market values for different urban areas. Although we could not obtain the raw market data used by Kubursi, this method is consistent with the approach we have previously chosen for the valuation of lost rural lands.

We have also chosen to present the work of UNCCP that can serve as a benchmark to our work. It should be noted that UNCCP adopted a different approach based on the tax record and consisting on the capitalization of the urban taxes paid in 1945. In the report, we highlight the pros and cons of each valuation approach.

### 5.3. BACKGROUND

Palestine under British mandate was not underdeveloped. It had many urban centers and villages with infrastructures. Let us take a few examples. Jaffa for instance had 32,000 residents under British Mandate in the early 1920s and before the war, the populations of Tel Aviv and Jaffa reached 80,000. The old city of Jaffa, which was controlled by the Arabs, was almost empty of Jews. In 1945, Arabs planted 146,316 dunums (146 km<sup>2</sup>) of citrus, and Jews planted 66,403 dunums (66 km<sup>2</sup>).

The land was cultivated in many regions. A Survey of Palestine provides information on the number of Arabs living towns: Under the new administrative boundary of 1944, you have 693,810 Arabs living in villages and the following number in towns with inhabitants numbering available<sup>15</sup>:

- Up to 5,000: 16,160 persons
- 5,000 to 15,000: 87,240 persons
- 15,000 to 45,000: 79,920 persons
- Over 45,000: 117,580 persons

The historical record is well documented in terms of description of cities and villages under British Mandate. For instance, "All That Remains" describes the destiny of some 420 Palestinian villages and towns that were cleansed and destroyed in most cases during the occupation of Palestine in 1948. The book lists villages, towns and Hamlets according to province with location, some pre-occupation information, and an account of what happened to the village and what remains out of it today. Of course, in some urban areas, you had a mix of Jews and Arabs and it becomes more difficult to reach a consensus on the share of land between the two populations due to population pressures in the years before the war in 1948.

It should be noted that, under British Mandate, town planning and building control had specific regulations under the Town Planning and Building Ordinance 1936 and subsidiary legislation. For instance, the Ordinance required the preparation by the local authorities in all large towns of urban planning strategies.

### 5.4. AVAILABLE EVIDENCE FOR VALUATION

We are satisfied with the information collected in the historical record in order to conduct our valuation of urban land losses. The UNCCP estimates have been used to collect information on the scope of urban lands to be included in our valuation. They contain a wealth of data that is directly relevant to the question of Palestinian refugee compensation/restitution. The most widely-known data are those detailing the scope and value of Arab property in Israel as of 14 May 1948.

From different sources, we have been able to collect and recoup cost data for valuing the land. We are satisfied with the type of data collected and we assert that our valuation can be

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<sup>15</sup> A Survey of Palestine, Volume I, Table 9a, page 153.

conducted on a market valuation basis, which is the preferred approach as discussed in Section 2 of this report. The information included provides from the following sources:

(A) PRIMARY SOURCE

- A Survey of Palestine (1946): The survey is probably one of the most reliable sources of information on pre war Palestine. It is also to be considered as an independent source of information. A Survey of Palestine is unique because it compiles various cost data on a per square meter basis for different types of housing. The values are quoted in £P 1945 and can be adjusted to £P 1948.

It should be noted that A Survey of Palestine includes a specific section on housing needs before the war. The Survey also provides a breakdown of the population in urban areas according to community origins. The Government statistician has estimated in 1945 that 27.2% of total Moslems lived in urban areas. It is also pointed out that the increase in number of Arab families living in urban areas is assumed to be similar to that of the whole Arab population.<sup>16</sup> A Survey of Palestine also provides detailed information regarding Arab urban areas. In Table 11, page 803 of the Survey, data is provided for many large towns of Palestine and shows that some cities were heavily populated in 1944, i.e. Jerusalem (56,000), Jaffa (68,000), Gaza (32,000). This analysis is based on the results of a questionnaire circulated to 24 urban areas.

- Atif Kubursi, Part V of Palestinian Rights and Losses in 1948 (1988): From this work, we have extracted the summary tables used extensively in our valuation for 1947 urban market values and scope of land for both urban lands and urban buildings. Atif Kubursi asserted that he extracted the scope of urban lands and buildings from the work of the UN land Expert in 1947 (cf. page 177 of his study). The market values were obtained after having “collected, computer-coded, and processed” (cf. page 166) over one million urban sales records and using averages to fill the existing gaps in the data. Please note that the scope of land falling outside the armistice line 1949 has been computed from data provided in the Kurbusi study (Please see Section 3 for a full explanation on this issue).
- Village Statistics 1945: The scope of urban land has been determined from Village Statistics 1945. Village Statistics 1945 includes a dedicated section to the scope of land in urban areas. The full tables used to carry out our valuation are located in Appendix 4 of this report.

(B) OTHER SOURCES OF EVIDENCE

- UNCCP, Document A/AC.25/W.81/Rev.2, Annex V, pages 6 to 8 (1961): This annex of a UN document provides with the capitalisation of taxes approach used by the UN to estimate the value of lost urban lands and buildings in Palestine. However it should be noted that we are quoting this study only to benchmark our own approach.

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<sup>16</sup> A Survey of Palestine, Volume I, pages 781-816.

## 5.5. METHODOLOGY OVERVIEW AND RATIONALE

### (A) GOALS

There is a number of potentially applicable valuation approaches for estimating urban property losses. UNCCP valuation has been mostly based upon tax assessment methodologies, the tax values serving as proxies for arriving at an aggregate value for urban properties. Atif Kubursi has been seeking to derive true market values. The selection of the most appropriate of these is discussed in the following pages. In part (c) of this section, we also describe the two main UNCCP approaches.

It is generally agreed that the market valuation basis is the most widely used valuation basis. Other valuation options could have been considered for the purpose of valuing urban land, i.e. a tax based approach. However, such options would not lead to a fair market valuation (For instance, property and land taxes are not levied at fairly predictable rates and prices quoted in the tax assessment records do not necessarily reflect true market values).

### (B) ASSUMPTIONS

We have made the following assumptions:

- a. We only consider in this exercise the urban land that was lost by Palestinian refugees due to the situation that arose in 1948. We must also not take into consideration the land that fell outside of what has become Israel, according the Armistice Line of 1948 ("AL48").
- b. We have sought to exclude all land that was of Jewish ownership in 1948. In the same way, we have sought to exclude the land that remained in Arab hands after 1948.
- c. We have included urban public land and urban roads and railways. Our calculations have been made for only the Arab share of such land. We have designed a specific method to calculate this share.
- d. Urban land for the Beersheba sub district has been included in this section because we could not find any information on this matter. However, rural land for Beersheba is dealt with in section 4.

### (C) VALUATION PRECEDENTS FOR URBAN PROPERTY

#### ***Berncastle (UNCCP Global Estimate)***

Under the auspice of UNCCP, Berncastle provided a first estimation of urban land and property losses for the amount of £P21 608 640. For a complete analysis of possible range of methods used by Berncastle, one can see UNCCP «Preliminary considerations in connection with the valuation of property abandoned by Arab refugees», 1st May 1951, W/63. Please see also page 125-127 of Records of Dispossession by Michael R. Fischbach for explanation on the methods.

The valuation is based on existing use value (i.e., in the case of buildings in urban areas on actual or estimated productivity of rent) plus normal development value (In fact values from the tax records were assumed to reflect true sales values). The methodology was as follows:

1. First, it was decided to arrive at the estimated amount of tax payable on the abandoned Arab lands in each town by assuming that the tax payable is in proportion with the decrease in population.
2. Having established the notional amount of tax payable (£90 036), the figure was multiplied by ten to arrive at the net annual value. This figure was weighted by 25 per cent to take account of the fact that, under the system of tax assessment which operated in Palestine, the assessments for a variety of reasons rarely represented the full market value; and by a further 25 per cent to take account of the rise in values between the last assessment prior to 1945 and the end of 1947. The weighted net annual value was multiplied by a coefficient of 16,667 to arrive at the global capital value of £P21 608 640.
3. It was felt necessary to deal with Jerusalem property separately because of the division of the city into three zones. The valuation was based on the register compiled by the Israel Custodian of Enemy Property which gives the number and description of each parcel vested in the Custodian, together with the assessment of capital value. The N.A.V. of each parcel according to the field valuation sheets for the latest assessment (1947) was obtained from other sources. The total N.A.V. was £P444,000 to which 25 per cent was also made. Application of the capitalization coefficient of 16.667, to the resulting net annual value of £P555,000, gave £P9,250,000 as the value of the Jerusalem property

It should be noted that this first attempt was largely based on land values derived from tax rates (the assessed values of land are extracted from the mandatory tax records). Land values were capitalized to establish land's actual value as of November 29<sup>th</sup>, 1947, which was adopted as the date of valuation. Urban tax was multiplied by 10 to arrive at the N.A.V. (It is not clear why UNCCP has adopted this 10% figure) to which is added 25% (to account for undervaluation of the N.A.V.) and another 25% to account for steep rise in values between last tax assessment and 1947. The origin of the capitalized rate of 16.67 is not clearly identified.

It was argued by many experts at the time that the approach taken by Berncastle in 1951 was too global for being used to value individual claims. However, UNCCP asserted that, once the values from the tax records had been obtained, this was the easiest and quickest method of arriving at a global assessment of refugees' urban property losses. It was still noted that the assessments of net annual value were largely theoretical bearing little relation to 1947/1948 true market values.

#### ***Jarvis (UNCCP Technical Program)***

Jarvis at UNCCP provided a second estimation of urban land and property losses for the amount of £P68 265 177 (See table below). The details of the work can be found in the following document: UNCCP A/AC.25/W.83, 5 October 1961 and A/AC.25/W.84. One can also consult pages 261-272 of Records of Dispossession by Michael R. Fischbach for explanation on the valuation methods.

For urban land (land and buildings built on it) the criterion common to all properties, i.e. buildings and undeveloped land or vacant sites, is the N.A.V. In order to get capital value from the N.A.V. (The N.A.V is the rent for which a property might be expected to rent from year to year after deduction of the allowance for repairs).

In the Jarvis report, it is said that tax values and sale values were compared and, if required, adjustment was made to reach a market value per unit of area to each parcel within the urban area as at 29 November 1947 (a multiplier was applied to the N.A.V. to get capital value - this multiplier was standardized for different property brackets by dividing recorded sale values by the N.A.V.). In the case of vacant sites, the valuation basis of the N.A.V. was 6% of the capital value. A table summarizing the findings for vacant lots and buildings to arrive at the total value of £P68 265 177 is provided in the report (including an estimate of 600 000 for Beersheba and 1 850 000 for Ramla).

For built-on areas, the valuation was as follows: a nation-wide figure of £P2 per square meter for rural buildings based on building costs is used and multiplied by number of estimated rooms in a village (derived from mandatory population figures). To this is added a value for land equal to 3 times the corresponding value of garden areas in that village.

TABLE 31: UNCCP VALUATION TABLE FOR URBAN LAND (JARVIS)

Area	Vacant Lots (£P)	Buildings (£)	Total (£P)
Acre	423 542	919 385	1 342 927
Afula	984		984
Bat Yam	1 683		1 683
Baysan	53 691	457 186	510 877
Haifa	4 311 086	10 467 644	14 778 730
Holon	123 441	890	124 331
Jaffa	7 559 740	14 094 203	21 653 943
Jerusalem	6 371 160	12 062 701	18 433 861
Lydda	438 690	1 403 399	1 842 089
al-Majdal	94 960	728 976	823 936
Natanya		36 497	36 497
Nazareth	219 907	1 412 635	1 632 542
Ramat Gan	71 447		71 447
Safad	157 354	84	157 438
Shafa' `Amr	52 814	284 330	337 144
Tel Aviv	2 366 740	134 020	2 500 760
Tiberias	201 253	524 084	725 337
* Beersheba (estimate)			600 000
* Ramla (estimate)			1 850 000
<b>TOTAL</b>			<b>68 265 177*</b>

Source: This table is extracted from UNSA DAG 13-3, UNCCP. Subgroup: Principal Secretary. Series: Records Relating to the Technical Office/Box 16/1952-57/Land Identification Project/Jarvis Report; Document: A/AC.25/W.83 ADD 1,

“Initial Report of the Commission’s Land Expert on the Identification and Valuation of Arab Refugee Property Holdings in Israel” (10 September 1962)

\* Please note that we have noted a discrepancy in the UNCCP Table. The correct figure should be £P67 424 526.

### **Atif Kubursi**

Atif Kubursi arrives at a value of £P118,417,387 (in 1947 value) or £P130 259 000 (in 1948 value) for 61,414 dunums (See Table 10 below). It should be noted that Atif Kubursi based its estimate on the work of UNCCP and subsequently “Village Statistics 1945”.

In the following table, we thought it was important to reproduce the table drawn by Atif Kubursi. Please note that the price / dunum has been derived by ourselves by making reference to the table provided by Atif Kubursi on page 178 of his work. We have also noted a non material discrepancy in his total for the value of the land. We have corrected the total.

TABLE 32: ATIF KUBURSI ESTIMATION OF SCOPE OF LOST URBAN LAND

Urban Area	Land Area (Dunums)	Building Area (Dunums)	Value of land / dunum (£P)	Total value of land (£P)	Value of buidling / dunum (£P)	Total value of buidling (£P)	Total
Acre	1 749	266	84	146 273	10 000	2 660 000	2 806 273
Beisan	590	72	145	85 709	9 000	648 000	733 709
Nazareth	4 585	310	46	212 469	12 000	3 720 000	3 932 469
Safad	1 053	191	99	104 215	10 000	1 910 000	2 014 215
Tiberias	611	127	463	283 040	15 000	1 905 000	2 188 040
Haifa	15 422	1 490	436	6 724 481	20 000	29 800 000	36 524 481
Jerusalem	10 798	1 043	454	4 902 832	25 000	26 075 000	30 977 832
Jaffa	9 683	1 035	362	3 504 084	22 000	22 770 000	26 274 084
Ramle	1 569	81	173	271 980	10 000	810 000	1 081 980
Lydda	3 210	167	173	556 453	10 000	1 670 000	2 226 453
Beersheba	3 256	169	28	90 580	8 000	1 352 000	1 442 580
Tel Aviv	1 970	190	382	752 225	22 000	4 180 000	4 932 225
Majdal	1 146	282	289	331 480	9 000	2 538 000	2 869 480
Shafa Amr	304	45	28	8 466	9 000	405 000	413 466
<b>TOTAL</b>	<b>55 946</b>	<b>5 468</b>		<b>17 974 287</b>		<b>100 443 000</b>	<b>118 417 287</b>

Source: This table has been directly extracted from “Palestinian Rights and Losses in 1948”, page 178.

### **Other studies**

We can mention a few other studies. For instance, Yusif Sayigh valued urban lands at £P11,700,000 for 29,250 dunums. The Weitz-Danin-Lifshitz Committee of 1948 estimated that the total urban land lost in 1948 was 94,127 dunums (for 8 sub-districts). The Committee arrived at a gross value of £P52,505,000<sup>17</sup> (at £P=US\$4.03 in 1948). Yosef Weitz in 1950 revisited the issue to arrive at a total area of 100,000 dunums of urban land. It should be noted that the Arab Higher Committee of 1955 arrived at a value of £P1,100,000,000 but the basis of the estimate is not clear.

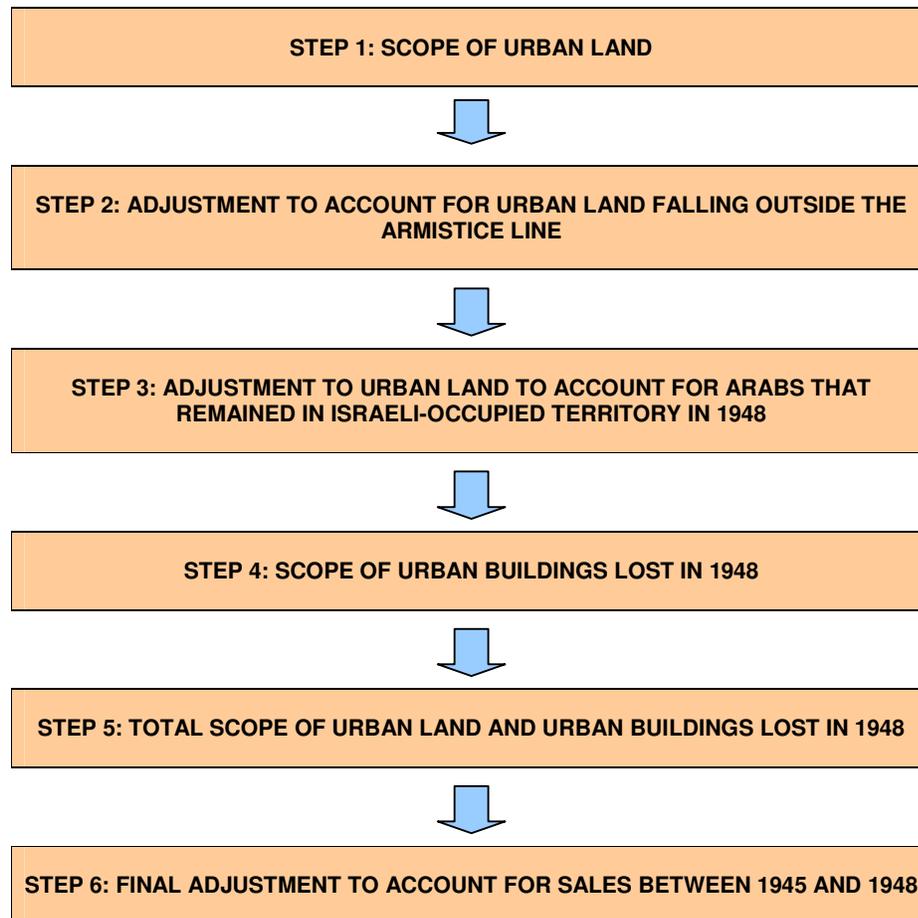
<sup>17</sup> The historical records often disclose information in £P or I£ - these currencies are assumed to convert to the same amount of USD in 1948.

Please see also The Peace Process and Palestinian Refugee Claims by Michael R. Fischbach for a summary of the various estimated discussed above.

## 6.6. ANALYSIS

We have carried out the following steps for our review of urban land and urban buildings:

FIGURE 5: LOGICAL REVIEW FRAMEWORK FOR URBAN LAND AND BUILDINGS



### STEP 1: SCOPE OF URBAN LAND

First of all, we have been estimating the scope of urban land to be included in our valuation. Our main concern has been to include both urban lands and buildings. We are proposing to use the data from “Village Statistics 1945” to determine the scope of lost urban land as it provides, on a sub-district basis and sorted according to the owner, a precise scope of “urban lands” in Palestine in 1945. The data are as follows:

TABLE 33: SCOPE OF URBAN LAND FROM VILLAGE STATISTICS

	Number of Villages and Towns	Sub-District	Urban Areas (in dunums)					TOTAL
			Arab	Jews	Public	Others	Roads, Railways, etc...	
GALILEE DISTRICT	57	ACRE	1,150	1,992	293	50	242	3,727
	43	BEISAN	561	1	26	0	75	663
	46	NAZARETH	3,180	679	227	1,230	664	5,980
	90	SAFAD	991	153	64	7	214	1,429
	45	TIBERIAS	478	1,864	257	74	432	3,105
	281	SUB-TOTAL	6,360	4,689	867	1,361	1,627	14,904
HAIFA DISTRICT	84	HAIFA	6,570	29,877	7,911	6,642	6,177	57,177
	84	SUB-TOTAL	6,570	29,877	7,911	6,642	6,177	57,177
SAMARIA DISTRICT	60	JENIN	915	0	98	0	92	1,105
	92	NABLUS	4,861	15	126	20	549	5,571
	114	TULKARM	1,487	993	192	7	361	3,040
	266	SUB-TOTAL	7,263	1,008	416	27	1,002	9,716
JERUSALEM DISTRICT	40	HEBRON	2,434	20	5	2	330	2,791
	99	JERUSALEM	9,792	5,047	557	2,948	3,556	21,900
	62	RAMALLAH	2,290	0	92	107	332	2,821
	201	SUB-TOTAL	14,516	5,067	654	3,057	4,218	27,512
LYDDA DISTRICT	61	JAFFA	10,472	29,693	1,719	2,403	5,772	50,059
	101	RAMLA	4,545	4,285	246	83	1,388	10,547
	162	SUB-TOTAL	15,017	33,978	1,965	2,486	7,160	60,606
GAZA DISTRICT	68	GAZA	10,881	0	714	70	2,055	13,720
	68	SUB-TOTAL	10,881	0	714	70	2,055	13,720
	1,062	GRAND TOTAL	60,607	74,619	12,527	13,643	22,239	183,635
	0	BEERSEHBA	1,526	80	1,815	5	464	3,890
	1,062	GRAND TOTAL FOR PALESTINE	62,133	74,699	14,342	13,648	22,703	187,525

Source: Village Statistics 1945

From the above table, it should be noted that the public land and land related to roads and railways are provided on a global basis for all populations, Arabs and Jews. As a result, we must design a method for deriving the share of each population. We have computed the Arab population ratio from the grand total of land as shown in Village statistics.

We have proceeded as follows:

TABLE 34: SHARE OF URBAN LAND FOR THE ARAB POPULATION

	Sub-District	Total urban land (in dunums)			Arab share ratio
		Arab (1)	Others (2)	TOTAL including Jews (3)	In % (1)+(2)/(3)
GALILEE DISTRICT	ACRE	1,150	50	3,727	87.18%
	BEISAN	561	0	663	43.59%
	NAZARETH	3,180	1,230	5,980	52.87%
	SAFAD	991	7	1,429	68.23%
	TIBERIAS	478	74	3,105	52.50%
	SUB-TOTAL	6,360	1,361	14,904	65.21%
HAIFA DISTRICT	HAIFA	6,570	6,642	57,177	44.53%
	SUB-TOTAL	6,570	6,642	57,177	44.53%
SAMARIA DISTRICT	JENIN	915	0	1,105	84.05%
	NABLUS	4,861	20	5,571	88.15%
	TULKARM	1,487	7	3,040	77.91%
	SUB-TOTAL	7,263	27	9,716	84.48%
JERUSALEM DISTRICT	HEBRON	2,434	2	2,791	95.64%
	JERUSALEM	9,792	2,948	21,900	88.00%
	RAMALLAH	2,290	107	2,821	99.41%
	SUB-TOTAL	14,516	3,057	27,512	93.47%
LYDDA DISTRICT	JAFFA	10,472	2,403	50,059	52.28%
	RAMLA	4,545	83	10,547	78.38%
	SUB-TOTAL	15,017	2,486	60,606	71.12%
GAZA DISTRICT	GAZA	10,881	70	13,720	74.73%
	SUB-TOTAL	10,881	70	13,720	74.73%
	<b>GRAND TOTAL</b>	<b>60,607</b>	<b>13,643</b>	<b>183,635</b>	<b>78.43%</b>
	BEERSEHBA	1,526	5	3,890	15.40%
	<b>GRAND TOTAL FOR PALESTINE</b>	<b>62,133</b>	<b>13,648</b>	<b>187,525</b>	<b>48.31%</b>

Source: Village Statistics 1945

We have regarded as Palestinian all the people described in "Village Statistics 1945" as "Arabs" and "Others" (Christians mostly), obviously excluding Jewish owned land. We have also decided to include public urban land in this section.

This is consistent with the approach developed by Atif Kubursi and our valuation done for rural land in Section 4 of this report.

Example:

Let's take the example of the Acre sub-district. Arab urban land is 1,150, public land is 293, other land is 50 and railways are 242 (in dunums). From the above Table 34, the ratio of Arab land is 87.18%. We therefore carry out the following computation:

Arab urban land = 1,150  
 Public land = 255 or  $293 \times 87.18\%$   
 Other land = 50 and railways is 242  
 Railways = 211 or  $242 \times 87.18\%$

The total is: 1,666 as reported in Table 35.

The following table shows in each sub-district the area of urban land owned by Palestinians in 1945. This table is computed by adding the following categories: "Arab urban land", "Other urban land", and adding the Arab share of "Public urban land" and the Arab share of "Roads, railways" (The share of the last two categories is obtained from the ratios developed above).

TABLE 35: TOTAL PALESTINIAN URBAN LANDS IN PALESTINE IN 1945

Sub-District	Total Palestinian Urban Lands (in dunums)
ACRE	1,666
BEISAN	605
NAZARETH	4,881
SAFAD	1,188
TIBERIAS	914
HAIFA	19,485
JENIN	1,075
NABLUS	5,476
TULKARM	1,925
HEBRON	2,756
JERUSALEM	16,360
RAMALLAH	2,818
JAFFA	16,791
RAMLA	5,909
GAZA	13,020
BEERSEHBA	1,882
<b>TOTAL</b>	<b>96,751</b>

Source: Village Statistics 1945 data, which can be consulted in the appendix section of this report (Appendix 7).

## STEP 2: ADJUSTMENT TO ACCOUNT FOR URBAN LAND FALLING OUTSIDE THE ARMISTICE LINE

As the fights between Israel and the Arabs stopped in 1949, an “Armistice Line of 1949” also known as “Green Line” effectively defined the new borders of Israel, dividing Palestine into the Gaza Strip (occupied by Egypt), Israel and the West Bank (occupied by Jordan). As we are interested only in the land that was confiscated by the Israelis, we cannot include in the valuation urban areas remaining in Palestine after the war, namely the cities of Jenin, Nablus, Tulkarm, Hebron, Ramallah (West Bank) and Gaza.

Deduction made of urban lands in these cities, the total Palestinian urban land to be considered in our valuation represents a grand total of 52.707 dunums. We have obtained this figure as follows:

TABLE 36: ADJUSTMENTS FOR URBAN LAND NOT TO BE INCLUDED

Sub-District	Total Palestinian Urban Lands (in dunums)	Total Palestinian Land inside the 1949 Israel (in dunums)
ACRE	1,666	1,666
BEISAN	605	605
NAZARETH	4,881	4,881
SAFAD	1,188	1,188
TIBERIAS	914	914
HAIFA	19,485	19,485
JENIN	1,075	
NABLUS	5,476	
TULKARM	1,925	
HEBRON	2,756	
JERUSALEM	16,360	16,360
RAMALLAH	2,818	
JAFFA	16,791	16,791
RAMLA	5,909	5,909
GAZA	13,020	
BEERSEHBA	1,882	1,882
<b>TOTAL</b>	<b>96,751</b>	<b>69,681</b>

Source: Village Statistics 1945 data, which can be consulted in the appendix section of this report (Appendix 7).

### STEP 3: ADJUSTMENT TO URBAN LAND TO ACCOUNT FOR ARABS THAT REMAINED IN ISRAELI-OCCUPIED TERRITORY IN 1948

We now have to account for the cities and villages part of whose Arab inhabitants remained in their homes in Israel-occupied territory in 1948. As noted by Atif Kubursi, the estimated number of Arabs who remained in Israeli-occupied territory after the hostilities had ceased and the joining of families arranged by the United Nations, was estimated to be 170,000 persons (Palestinian Rights and Losses 1948, page 242). As a result, we cannot consider that they are entitled to reparation and therefore we have excluded their land from our valuation.

In Part V of “Palestinian Rights and Losses in 1948” (Appendix VII, pages 242 to 245), Atif Kubursi gives a table describing village per village and town per town the scope of land that was still owned by its Palestinian inhabitants in Israeli occupied territory in 1949. The full table directly extracted from Atif Kubursi’s work can be seen in the general annexes of the report (Appendix 7). However, the table is only provided on a global basis, including both rural and urban lands. Only for the cities of Acre and Nazareth, specific data are provided regarding the scope of land that remained in Palestinian hands after 1949.

As a result, we had to develop a specific methodology to account for the lack of data for urban land remaining in the hands of Palestinians in Israel-occupied territory after the war. Our methodology is based on the ratio derived in Table 12 below. To calculate it, in each sub-district, we have divided the total area of land that was in Israel in 1949 (according to the Green Line) by the total area of land that remained owned by Palestinians.

For instance, in Tiberias, we know that, according to “Village Statistics 1945”, the total Arab share of the land for the sub district represents 254 971 dunums (including the Arab share of public land and land attributed to “others”), and that the land that remained in Palestinian hands after 1949 represents 56,780 dunums (as computed in Appendix VII of Palestinian Rights and Losses in 1948). Therefore  $56,780 / 254\,971 = 22.27\%$  of the sub-district land remained Palestinian after 1949 and must be excluded from our valuation.

These ratios are the same as those we used in Section 4 of this report for the valuation of rural lands (See Table 21).

TABLE 37: RATIO OF LAND KEPT BY PALESTINIANS IN ISRAEL AFTER THE WAR

Sub-District	Area still held by its Arabs owners in 1949 (in dunums)	Total Palestinian land in Israel's territory (in dunums)	Ratio of land kept by Palestinians in Israel in 1948
	(A) From Atif Kubursi	(B) From Village Statistics	(=A/B)
ACRE	501 710	770 267	<b>65,13%</b>
HAIFA	169 973	554 403	<b>30,66%</b>
JENIN	79 820	255 429	<b>31,25%</b>
JERUSALEM	11 234	257 935	<b>4,36%</b>
NAZARETH	178 906	321 840	<b>55,59%</b>
SAFAD	43 904	553 124	<b>7,94%</b>
TIBERIAS	56 780	254 971	<b>22,27%</b>
TULKARM	136 088	412 807	<b>32,97%</b>

Source: Summary of our calculations made from Atif Kubursi’s Appendix VII of Palestinian’s Rights and Losses, pages 242-245. The full table from which this summary is derived can be consulted in Appendix 8 of this report.

(A) The data are extracted from Kubursi, Palestinian Rights and Losses 1948, Appendix VII, p. 242-245 (“List of Town and Village part of whose Arab Inhabitants remained in their homes in Israeli-occupied Territory in 1948”). The table is in part reproduced in Appendix 7 of this report.

(B) The data are extracted from Village Statistics 1945. Please note that we have included the Arab share of public land and land attributed to "others". Village Statistics is reproduced in Appendix 4 of this report.

For several sub-districts (Beisan, Jaffa, Ramla and Beersheba) Atif Kubursi's table provides no information in respect of urban land. We have therefore assumed that all the land was lost by its Palestinian owners in 1949 in these sub-districts. The following table provides a summary of the adjustments made to arrive at the scope of land lost by Palestinians:

TABLE 38: LOSS OF URBAN LAND IN 1948

Urban area	Total Palestinian Urban Lands (in dunums)	Step 2 adjustment for land outside the armistice line (in dunums)	Step 3 adjustment ratios for land still in Israel after the war	Total urban land lost by Palestinians in 1948 after adjustments of Step 2 and 3
ACRE	1,666	1,666	**	13
BEISAN	605	605	0%*	605
NAZARETH	4,881	4,881	**	12
SAFAD	1,188	1,188	7.94%	1,094
TIBERIAS	914	914	22.27%	710
HAIFA	19,485	19,485	30.66%	13,511
JENIN	1,075			
NABLUS	5,476			
TULKARM	1,925			
HEBRON	2,756			
JERUSALEM	16,360	16,360	4.36%	15,647
RAMALLAH	2,818			
JAFFA	16,791	16,791	0%*	16,791
RAMLA	5,909	5,909	0%*	5,909
GAZA	13,020			
BEERSEHBA	1,882	1,882	0%*	1,882
<b>TOTAL</b>	<b>96,751</b>	<b>69,681</b>		<b>56,174</b>

\* As no information is available for these sub-districts, we have assumed that 0% of the land remained in Palestinian hands in what became Israel in 1948.

\*\* The information is extracted from Atif Kubursi's study for the cities of Acre (1.187 dunums out of a total of 1.200 remaining in Palestinian hands after 1948, or 13 dunums lost by Palestinians in 1948) and Nazareth (4.398 dunums out of a total of 4.410 remaining in Palestinian hands after 1948, or 12 dunums lost by Palestinians in 1948).

Another adjustment should be made in this section to exclude of all the urban land that was sold by their Arab owners to Jewish immigrants or landowners in Palestine between the year 1945 when Village Statistics data was compiled and the year 1948 when the war began. As mentioned in our general background of the conflict, in the years before the war, vast and ever increasing

quantities of Palestinian soil (mostly rural and agricultural, but also urban) was being sold by Arabs (mostly by rich landowners who were leaving the country) and bought by Jews, notably thanks to the Jewish National Fund and accordingly to the Zionist doctrine. This land, which was rightfully exchanged between willing sellers and buyers at a time when market values were relatively high given the great demand, can obviously not be considered to be lost for the Palestinians and should be deducted from this exercise. However, as we lack sufficient data between 1945 and 1948, we cannot make this adjustment.

Our conclusion is that **56,174 dunums** of urban lands were lost by Palestinian refugees because of the 1948 war. Please note that we have run another simulation by excluding public urban land and urban roads and railways. In doing so, we obtained **42.296 dunums** of urban lands were lost by Palestinian refugees because of the 1948 war (In Appendix 10, we have provided the simulation to reach the value of 42.296 dunums).

#### STEP 4: SCOPE OF URBAN BUILDINGS LOST IN 1948

We must account not only for the value of the lost urban lands, but also for the lost value of the buildings themselves located in the urban areas under review. This is what we intend to do in this part of the report. We have relied on Atif Kubursi's work to estimate the scope of building area that was lost by the Palestinian refugees in 1948. Please note that we have not been able to identify other source of information relating to buildings.

In Part V of "Palestinian Rights and Losses in 1948" page 177, Atif Kubursi says that "extensive information was collected on urban land and buildings in Palestine in 1947 by the UN Land Expert. [...] These data formed the basis of our estimates of Arab urban property losses in 1948. [...] The proportion of built-up area on Arab urban land varied from town to town, and those used were calculated from the UN data which are presented in Appendix XI. The highest proportions are in Majdal (24.7%), in Tiberias (21%) and in Safad (18.2%). The overall effective average ratio of built-up area to land area is 9.8%".

In order to reproduce the ratio of built-up area to urban land area, we have divided in each city the scope of urban land by the scope of existing building area. We were unable to identify the UN Land Expert's documents referred to by Atif Kubursi and from which both Appendix XI of "Palestinian Rights and Losses in 1948".

However, we have conducted a survey based on aerial imagery and cadastral survey data available in Abu Sitta's *Atlas of Palestine 1948* and on the internet website [www.palestineremembered.com](http://www.palestineremembered.com) and we estimate that the average of 9.8% of the urban land being occupied by a building is a reasonable and fair assessment in the Palestine of 1948. The remaining space (90.2%) would be occupied by religious buildings, roads and railways, public infrastructure like gardens or public buildings (none of which are valued in this section), or yet undeveloped urban land. The detailed table showing Atif Kubursi's calculations to arrive at the built-up ratio of 9.8% can be found in Appendix 11.

As we could not obtain any original data regarding urban buildings in Palestine in 1948, we have decided to use a ratio-based approach developed by Atif Kubursi. However, instead of taking for granted Kubursi's approach, we have decided to bring some adjustments as follows:

- We have used to total Palestinian urban land as derived in Table 35;
- We applied to built-up ratio derived by Atif Kubursi and reproduced in Appendix 11 of this report.

For instance, in the city of Jaffa, we have found a total of 16,791 dunums (cf. Table 40), and derived a ratio of 10.69% of urban land being built-up (cf. table 14). Therefore the built-up area in Jaffa is  $12.875 * 10.7\% = 1,795$  dunums.

The following table details our findings for the scope of both urban area and building area lost by the refugees in 1948. We assume that these figures are representative of the total area of buildings in sub-districts under review.

TABLE 39: CALCULATIONS FOR DERIVING SCOPE OF LOST URBAN BUILDINGS

Urban area	Total Palestinian Urban Lands (in dunums) (See Table 35)	Total urban land lost by Palestinians (See Table 38) (1)	% of built-up urban areas, A. Kubursi (See Appendix 11) (2)	Urban buildings lost by the 1948 refugees (in dunums) (1)*(2)
ACRE	1,666	13	17.99%	2.3
BEISAN	605	605	12.20%	73.8
NAZARETH	4,881	12	6.76%	0.8
SAFAD	1,188	1,094	18.14%	198.5
TIBERIAS	914	710	20.79%	147.6
HAIFA	19,485	13,511	9.66%	1,305.2
JENIN	1,075			
NABLUS	5,476			
TULKARM	1,925			
HEBRON	2,756			
JERUSALEM	16,360	15,647	9.66%	1,511.5
RAMALLAH	2,818			
JAFFA	16,791	16,791	10.69%	1,795.0
RAMLA	5,909	5,909	5.16%	304.9
GAZA	13,020			
BEERSEHBA	1,882	1,882	5.19%	97.7
<b>TOTAL</b>	<b>96,751</b>	<b>56,174</b>		<b>5,437.2</b>

## STEP 5: TOTAL SCOPE OF URBAN LAND AND URBAN BUILDINGS LOST IN 1948

This above table summarizes our conclusions regarding the scope of urban land and urban buildings. We find the total loss of the Palestinian refugees in 1948 to be **56,174 urban land dunums** and **5,437.2 urban built-up dunums**.

Please note that these values are consistent with Atif Kubursi's findings of 55,675 dunums of urban land and 5,468 dunums of building areas (See page 176 of Palestinian Rights and Losses in 1948).

#### STEP 6: VALUATION OF URBAN LAND AND BUILDING AREAS

We have chosen to use a market value approach to determine the value of the lost urban lands and buildings by the 1948 refugees, because it is a commonly practiced and generally accepted method in international valuation exercise and because it is consistent with the approach that we have chosen earlier in the valuation of rural lands.

Now that we have determined with precision the scope of urban land and building areas to be included in our project, we must derive value drivers on a sub-district basis. In Part V of "Palestinian Rights and Losses in 1948", Atif Kubursi proposed market values per dunum of urban land. It is argued that the data were derived from his personal work and from the UN Land Expert's previous estimates. In page 166 of his study, the following is said to explain the origin of the data:

"More than one million records on urban areas were coded and stored. The following codes were used: urban area code, block number, parcel number, area of land, assessed price per meter, description of land, total number of rooms, total number of offices, shops, stables, huts, town halls, garage, storage rooms, area of buildings, price per meter of built-up area, Net Annual Value, and finally the year of assessment".

Furthermore, in page 178, he says that "The average price per dunum of land in the various urban areas was taken directly from the UN statistics [...]. These prices are considered, by experts familiar with market prices at the time to be somewhat on the low side. However the discrepancies between market prices and these weighted averages are not considered to be substantial and so no adjustment was made to them. The fact that they are regarded as low has the advantage of refuting any charge that Arab claims are being exaggerated". Thus, Atif Kubursi's market values are derived from both the UN Land expert's work and Atif Kubursi's own work of collecting and computerizing sales records.

In page 165, he gave an example of the cards on which the codes were punched on for computerization. However, during a meeting in 2005, Atif Kubursi told us that the entirety of these original sales records had been destroyed in a flooding since then. As a result, we had no possibility to audit and verify the accuracy of the data. The same is true for UNCCP data and we confirmed that we have not been able to access the UNCCP archive and materials.

For information, we have derived the price per dunum from Atif Kubursi's data since he provides the total scope of land and value for each sub-district. The derived price per dunum is shown in the right-hand column of the following table.

TABLE 40: DERIVATION OF URBAN LAND PRICES ACCORDING TO ATIF KUBURSI'S DATA

Urban area	Arab urban land Area (in dunums)	Value of Land (in £P48)	Price per dunum (in £P48)
Acre	1 479	£146 273	£99
Beisan	590	£85 709	£145
Nazareth	4 585	£212 469	£46
Safad	1 053	£104 215	£99
Tiberias	611	£283 040	£463
Haifa	15 421	£6 724 481	£436
Jerusalem	10 798	£4 902 832	£454
Jaffa	9 683	£3 504 084	£362
Ramle	1 569	£271 980	£173
Lydda	3 210	£556 453	£173
Beersheba	3 256	£90 680	£28
Tel Aviv	1 970	£752 225	£382
Majdal	1 146	£331 480	£289
Shafa 'Amr	304	£8 466	£28

Source: These values are derived from table 20-10 of "Palestinian Rights and Losses in 1948" page 178. To obtain the price per dunum of urban land, we have divided for each sub-district the total value of land by the total scope of land provided by Atif Kubursi.

However, when it comes to the price of the buildings, Atif Kubursi has found that the UN prices were grossly underestimating the actual value of the time. Therefore, he defined a new set of prices for a square meter of building in every major city in Palestine, based on the urban sales records that he has compiled himself and on construction costs evolutions. As the following table shows, these "new prices" are found to be over 5 times higher than UN prices, to which he refers as "old prices".

Again, we have not been able to access the raw data used by Atif Kubursi but, nonetheless, we reproduce here the data.

TABLE 41: PRICE PER METER OF URBAN BUILDING FROM ATIF KUBURSI

Urban area	Old Prices (£P per meter)	New Prices (£P per meter)	Multiplication factor from old to new prices (%)
Acre	£1.94	£10	514%
Beisan	£1.74	£9	515%
Nazareth	£2.30	£12	520%
Safad	£1.94	£10	515%
Tiberias	£2.87	£15	522%
Haifa	£4	£20	500%
Jerusalem	£11.32	£25	221%
Jaffa	£4.43	£22	497%

Ramle	£1.72	£10	581%
Lydda	£1.72	£10	581%
Beersheba	£1,72	£8	465%
Tel Aviv	£2.69	£22	818%
Majdal	£2.76	£9	325%
Shafa 'Amr	£0.73	£9	1221%
<b>AVERAGE</b>			557%

Source: The above figures have been directly extracted from table 20-12 of "Palestinian Rights and Losses in 1948" page 180. The multiplication factor is found by us by dividing the new prices by the old prices.

It should be noted that the average price per square meter is £P14.1 according to Atif Kubursi (on the 'new' price basis). To account for the steep rise between the old and new prices, Kubursi says page 180 that "[...] the old vector of per meter of urban buildings prices was scaled upward using two principles – the relationship of one price to another is generally preserved in the two vectors and the blow-up scalars were calculated on the basis of change in construction workers wages and prices of construction materials between 1939 and 1947".

Because the origin of the market value evidence is not provided by Atif Kubursi, we have been seeking to derive a benchmark that could be used in our valuation. Using "Survey of Palestine", we have been able to find cost construction data as follows:

TABLE 42: CONSTRUCTION COSTS IN 1945 FROM A SURVEY OF PALESTINE

Name of builder	House type	Number of rooms	Construction costs (£P 1945)	
			Per house	Per Square meter
Shikun Workmen's Housing Co. Ltd	Terrace house	1	578	16.5
Shikun Workmen's Housing Co. Ltd	Terrace house	2	744	16.5
Buildco.	Terrace house	3	1327	17
Shikun Workmen's Housing Co. Ltd	Semi-detached	1	658	18.8
Shikun Workmen's Housing Co. Ltd	Semi-detached	2	897	16.3
Bayside Land Corporation	Terrace house	2	1034	18.2
Palestine Builders & Contractors Ltd.	Detached	2	858	16.2
Palestine Builders & Contractors Ltd.	Detached	3	1215	15.8
Zador Ltd.	Detached	2	977	16.8
Zador Ltd.	Detached	3	1200	14.8
			<b>Average</b>	<b>18.5</b>

Source: A Survey of Palestine, page 812

The average is £P18.5 in 1945 value (against £P14.1 per square meter of building). If we actualize this figure using the methodology outlined in Section 3, we obtained the following figure by using the 1945-1948 growth rate factor of 39.7%:

$$£P18.5 \times 1.397 = £P 25.84 \text{ per square meter (building)}$$

This figure represents an average of construction costs per square meter for all types of housing. The origin of the data are known for deriving such average and, as thus, we have decided to use the estimate derived from A Survey of Palestine instead of Atif Kubursi new price data.

#### STEP 7: FINAL VALUATION OF THE URBAN LANDS AND URBAN BUILDINGS

Now that we have determined the scope of land and market values for both urban land and urban buildings, we can deduce the overall value in the following table.

TABLE 43: SUMMARY OF FINDINGS

Urban area	Scope of Urban land (dunums)	Price per dunum (£P48)	Value of Urban land (£P48)	Scope of Buildings (square meter)	Prices per square meter (£P48)	Value of Buildings (£P48)
Acre	13	99	<b>1,287</b>	2,339	25.84	<b>60,440</b>
Beisan	605	145	<b>87,725</b>	73,810	25.84	<b>1,907,250</b>
Nazareth	12	46	<b>552</b>	811	25.84	<b>20,956</b>
Safad	1,094	99	<b>108,306</b>	198,452	25.84	<b>5,128,000</b>
Tiberias	710	463	<b>328,730</b>	147,609	25.84	<b>3,814,217</b>
Haifa	13,511	436	<b>5,890,796</b>	1,305,163	25.84	<b>33,725,412</b>
Jerusalem	15,647	454	<b>7,103,738</b>	1,511,500	25.84	<b>39,057,160</b>
Jaffa	16,791	362	<b>6,078,342</b>	1,794,958	25.84	<b>46,381,715</b>
Ramla	5,909	173	<b>1,022,257</b>	304,904	25.84	<b>7,878,719</b>
Beersheba	1,882	28	<b>52,696</b>	97,676	25.84	<b>2,523,948</b>
<b>TOTAL</b>			<b>20,674,429</b>	<b>TOTAL</b>		<b>140,497,816</b>

NB: the values for urban buildings are in meters whereas the values for lands are in dunums. 1 dunum = 1,000 square meters.

This table summarizes our conclusions. The overall value of urban property losses by Palestinian refugees in 1948 is £P20,674,429 (urban land) + £P140,497,816 (Buildings) for a total of **£P161,172,245**.

#### STEP 8: FINAL ADJUSTMENT TO ACCOUNT FOR SALES BETWEEN 1945 AND 1948

As carried out in Section 4, we propose to make an adjustment to account for the sales of urban property from Arabs to Jews between 1945 and 1948. Since we could not find data on a sub district basis but only on a global basis, we propose to do the adjustment at this stage.

We have been using a publication entitled "Queen's Economics Department Working Paper No. 1117 - Compensation and the Abandoned Property of the 1948 Palestinian Refugees: Assessment and Implications" by Frank D Lewis (Queen's University). In Table 2 of his report, the author reports data about the transfers of urban property in Palestine from January 1945 to September 1947.

The total of 1,329 dunums or 1,329,000 square meters is reported to be sold from Arabs to Jews on this period of time. When we value this figure at the pre determined average rate of £P25.84 per square meter, we obtain a total of £P34,341,360 that we need to deduct from our total for urban buildings (See Table 40).

Our final result for this section is as follows:

£P20,674,429 (urban land)

plus

£P140,497,816 (Urban buildings)

minus

£P34,341,360 (deduction for sale of property from Arabs to Jews 1945-1947)

for a total of **£P126,830,885 (in 1948 value)**.

## 5.7. LIMITATIONS AND DIFFICULTIES

Although the market valuation basis is technically the best internationally recognized method in many fields, there is a great deal of variations in the manner to reach a fair market valuation, mostly related to the nature of market data, the property types into study, elements of costs, etc. Particular difficulties arise in the context of data obtained in pre-war Palestine. When referring to Atif Kubursi's data, it is not clear what its origin is, as he refers to a UN Land Expert document which we could not find and to "over a million sales records" that were destroyed in a flooding.

Indeed one of the major issues is being able to collect true market evidence of land transfer or rental deals struck between willing parties in a 'liquid' market.

## AUDIT TRAIL

Evidence type	Reference (Publication/Author)	Page	Remarks
Background and contextual information	Survey of Palestine and other documents		
Tax based approach for valuation of urban lands and buildings	UNCCP, <i>Document A/AC.25/W.81/Rev.2</i> , 1961	Annex V, pages 6 to 8	Precedent valuation, used as a global proxy to our conclusions.
Tax based approach for valuation of urban lands and buildings	"Berncastle - UNCCP Global Estimate" - UNCCP A/AC.25/W.83, 5 October 1961 and A/AC.25/W.84	n.a.	Precedent valuation, used as a global proxy to our conclusions.
UNCCP past estimates.	"Jarvis - UNCCP Technical Program" - «Preliminary considerations in connection with the valuation of property abandoned by Arab refugees», 1st May 1951, W/63	n.a.	Precedent valuation, used as a global proxy to our conclusions.
Details on UNCCP's methods and conclusions.	Michael R. Fischbach, <i>Records of Dispossession</i> , 2003	Pages 125 to 127 and 261 to 272	Secondary source describing the UNCCP approach of urban properties valuations from Berncastle to Jarvis.
Scope of urban lands	<i>Village Statistics 1945</i>	n.a.	Statistical data, used to determine scope of urban land.
Pictures, maps, satellite views, cadastral data	www.palestineremembered.com	n.a.	Non-numeral data, mostly photographs and maps, used as proxies.
Pictures, maps, satellite views, cadastral data	S. Abu Sitta, <i>Atlas of Palestine 1948</i> , 2004	Page 812	Non-numeral data, mostly photographs and maps, used as proxies.
Scope of privately owned urban lands, and buildings. Market values for urban lands and buildings.	Sami Hadawi and Atif Kubursi, <i>Palestinian Rights And Losses in 1948</i> , 1988	Page 161 to 181 & annexes	Non-original data, the author refers to UN Land Expert data which we have not found. Used a primary source for urban land and building market values. Used as proxy for the scope of land and overall value.
Building cost based values for urban buildings	V. W. Shaw, <i>A Survey of Palestine</i> , Vol. 1 and 2, 1991		

## 5.9. ADDRESSING THE GAPS AND RECOMMENDATIONS

At this stage of our review, our valuation does not necessitate any other data.

## SECTION 6 – VALUATION OF HOLY PLACES

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### 6.1. SUMMARY OF FINDINGS

Please find attached an estimation related to the loss of Holy places in 1948. The loss of such property represents a grand total of **£P1,602,080** (in 1948 price). Such value is only for the loss of real estate.

### 6.2. OBJECTIVES AND SCOPE OF WORK

In this study, we carry out a valuation of destroyed buildings associated to holy places. The term “holy place” refers to mosques and churches. It excludes properties belonging to religious institutions that are used as living quarters or for administration, such as orphanages or hostelries. It also excludes synagogues, archeological work, sculptures and paintings, graveyards and shrines.

We propose a valuation approach based the historical cost basis, making reference to existing benchmarks. For the scope of assets to be included, we are referring to *Sanctity Denied*. For valuation data, we are using the study made by Atif Kubursi who has collected prices for different sub-districts and adjusted them to reflect market realities in 1948.

We have also proposed a methodology for arriving at a global estimation of the following items:

- Furniture and equipment
- Carpets and curtains
- Fittings

### 6.3. BACKGROUND

The part of Palestine within the Armistice line, that became Israel, had the bulk of religious installations. Religious sites were an integral part of the Palestinian life. Before 1948, most holy places in Palestine were property of the waqf. Following 1948, most of the Arab holy places were either destroyed or confiscated. Much of the Christian land and buildings, including in the destroyed villages, was subject to the same procedure of state confiscation that applied to other Palestinian land inside the new Israeli state.

Following the eruption of the 1948 war, more than 400 Palestinian villages inside the borders of the new Jewish state were destroyed (See also *All That Remains* by Walid Khalidi). Once these areas were cleared, the land was reassigned to immigrant Jewish communities, often as kibbutzim or moshavim, for their exclusive use. It should be noted that in pre-war Palestine, you had about 800 villages and over one-quarter of the villages had populations exceeding 1,000, 25 villages having populations under 100.

Complete destruction of holy places has been most common in the main built-up area in the centre of the country, in the suburban commuter belt between the two biggest cities, Tel Aviv and Jerusalem. As noted in *Sanctity Denied*, "this region is largely inhabited by Israeli Jews, and in many cases development has taken place without regard to the protection or preservation of Muslim and Christian holy places located in those areas. The mosque of al-Khairiya, for example, has long been leveled and covered by the sprawling Givatiyim suburbs of east Tel Aviv. But the same phenomenon occurs elsewhere in the country: the church that was recorded in 1949 by the United Nations Conciliation Commission for Palestine in the village of al-Birwe, east of Acre, was also completely destroyed and the land passed to two kibbutzim." Some of the villages have not been destroyed but the holy places are not accessible anymore and have been seriously altered over time.

In the following paragraphs, we provide a few examples of the scope of destruction:

1. In the village of Sarafand, a destroyed village near Haifa, only the mosque was left standing. The building was approximately 100 years old, 350 square meters, and has been referred to as one of the best-engineered mosques in Palestine. This mosque has been reconstructed but destroyed again.
2. The roofless shells of a church and a mosque are still standing in the northern Galilean village of Suhmata. These ruined places of worship are left derelict and in threat of further deterioration.
3. The Catholic church of al-Bassa, a northern Galilean village dating back at least 200 years, used to be a fine two-storey building in the Byzantine style. Today, the second floor, which contained the school and priest's house, has completely disappeared into rubble, and the rest of the structure is in critical danger of collapse. No repair is permitted because the land is owned by the state and located in the middle of what is now an industrial estate.

A similar pattern is reflected across the country. The Bahar Mosque in Tiberias stands derelict next to a well-kept promenade and in between large modern hotels. Another mosque in Tiberias is the impressive and ornate al-Zeidani mosque, which is locked and surrounded on all sides by a shopping centre. The mosque is filled with rubbish and covered with graffiti in the centre of a well maintained public space (See details in pages 15-16, *Sanctity Denied*).

#### 6.4. AVAILABLE EVIDENCE FOR VALUATION

First, it should be pointed out that there are very few records available on the extent of destruction of holy places. However, we were able to recoup evidence from different historical record as follows:

##### (A) PRIMARY SOURCES

- S. Abu Sitta, *Atlas of Palestine 1948 (2004)*: All the holy sites are marked in the Atlas of Palestine 1948 (Church / Chapel, Convent, Hospice, Monastery, Orphanage, Synagogue, Mosque, Tomb / Sheikh, Cemetery, Ruins).
- Arab Association for Human Rights, *Sanctity Denied (2004)*, from which is derived the table of destroyed holy sites since 1948 (247 mosques and 19 churches).
- Walid Khalidi, *All That Remains (1992)*: This exhaustive study provides a detailed description of the 418 villages destroyed and lying within the pre-1967 borders. It includes number of houses, cultivable land, ownership information, number of houses and build-ups. It does not provide the total number of mosques and churches but usually disclose information when a mosque existed.
- www.palestineremembered.com: We have extensively relied on this website to find information of the number of mosques and photographs to help us estimate the type and size of religious buildings. This web site does not contained exhaustive information for all destroyed villages and sites. However, we have been able to infer a proxy for arriving at an average size in square meter for buildings.
- Sami Hadawi and Atif Kubursi, *Palestinian Rights And Losses in 1948 (1988)*: Proxy values for valuing religious estate have been derived from this study.

##### (B) OTHER SOURCES OF EVIDENCE

- V. W. Shaw, *A Survey of Palestine, Vol. 1. and 2. (1991)*: It contains detailed statistics about the type and scope of assets in pre war Palestine.
- Michael R. Fischbach, *Records of Dispossession (2003)*. The book discusses various estimates and provides values for urban and rural lands and building. The UNCCP values are derived from this work. However, please note that we have preferred Atif Kubursi's data which are based on sales data and not tax values.
- Mr. Sayigh's Study (Chapter 3), 1966: We have been using the data presented in his study to derive a price per square meter. However, the origin of his values is uncertain and, as a consequence, we have proposed to use Atif Kubursi's data.

## 6.5. METHODOLOGY OVERVIEW AND RATIONALE

### (A) GOALS

In valuing cultural heritage properties such as mosques and churches, the historical cost approach has been used. First, we have proposed a methodology consisting in determining the scope of destroyed holy assets (We have compiled the number of destroyed/damaged holy places and then derived a conversion protocol for reaching an estimation in square meters). Second we have derived a proxy economic value based on the existing historical record.

### (B) ASSUMPTIONS

We have made the following assumptions:

- We cannot access enough data on the proportion of mosques or churches that have suffered damages but could be repaired. As a result, all holy places included in this study are considered as being 'destroyed' and beyond repair.
- We have excluded from our methodology all religious building in Gaza and the West bank. Jerusalem is not included in the study as well. This report covers the area of land inside the Green Line, the armistice lines agreed after the war of 1948. East Jerusalem or the old city of Jerusalem, both of which were occupied by Israel during the 1967 war is not included.
- We have excluded some types of religious sites, i.e. cemeteries or ruins, for which a market value cannot be derived on a reasonable basis. Obviously, synagogues have also been excluded from our list since the ownership is Jewish.
- We have excluded the land on which the holy places are built to avoid double-counting. In fact, religious lands (or "Waqf" under the Ottoman terminology) are valued under SVP 1, the scope of such land being included in the data used from Village Statistics (1945).
- We have not valued the indirect benefits that could be derived from holy places. It is however clear that those benefits would be available, holy places being considered as a 'public good'. We assumed that non-market elements would be included in our estimation of the loss of livelihood. As such, our valuation model only refers to material assessment of real estate assets.

### (C) VALUATION PRECEDENTS FOR HOLY PLACES

Before proposing a methodology, we have reviewed valuation precedents for holy places. For instance, the United Nations Compensation Commission (UNCC) had the task to value mosques in Kuwait following the invasion of occupation of the country by Iraq.

In particular, the Kuwaiti Government had presented a number of claims for compensation for damage to buildings, usually schools or mosques, which would not be rebuilt principally because of their location near the border between Kuwait and Iraq or on Failaka Island. The claims were

usually made for the estimated cost of reconstructing the buildings (See also the Report and Recommendations made by the Panel of Commissioners concerning the first instalment of F3 Claims, S/AC.26/1999/24).

Ideally we would have preferred to use a cost based approach, i.e. the estimated reinstatement cost basis, to carry out our valuation. Such approach has been used in many international contexts and is a standard in various litigation procedures. However, a reinstatement cost approach would require a large data set that does not exist at present time (size of building, material used, maintenance cycles, description of fittings, etc.).

It should be noted that cultural heritage claims are also valued under non-market valuation approaches (i.e. contingent valuation), the idea being to discover what individuals would be willing to pay for asset conservation (such techniques allow to derive a proxy for valuing the loss of cultural heritage). Other non-market techniques (i.e. Delphi) are used to put together a group of experts and develop a professional judgment on the valuation of damages.

Although non-market approaches have been extensively used for valuing cultural heritage claims, we do not recommend using them because they require a significant amount of time and resources for designing the qualitative models (large samples are needed to capture the benefits that people can derive from cultural goods and services).

## 6.6. ANALYSIS

We only consider those holy places destroyed since 1948. Although we provide the total number of places of worship in use at the beginning of 1948, it is information provided for benchmark purpose from which we can measure the scale of destruction. The benchmark of total holy places in Palestine is derived from the Atlas of Palestine 1948 and precise number of sites destroyed is obtained from Sanctity Denied.

The following table has been derived from the Atlas of Palestine (See also page 32-33):

TABLE 44: TOTAL NUMBER OF HOLY PLACES IN PALESTINE

DISTRICT NAME	Church / Chapel	Convent	Hospice	Monastery	Orphanage	Synagogue	Mosque	Tomb / Sheikh	Cemetery	Ruins	TOTAL
Hebron	1	1	-	-	-	-	7	39	18	2	68
Jerusalem	14	10	4	1	7	20	14	44	38	1	153
Nazareth	34	1	1	3	4	6	15	17	52	19	152
Beersheba	-	-	-	-	-	-	1	24	8	37	70
Beisan	2	-	-	-	-	-	7	28	46	10	93
Jenin	-	-	-	-	-	-	6	8	21	10	45
Haifa	25	6	2	4	-	9	24	42	111	100	323
Ramle	6	-	-	-	-	7	47	77	60	16	213
Safad	4	-	-	-	-	4	14	73	88	6	189
Tiberias	12	1	1	-	-	8	9	44	58	5	138
Tulkarm	-	-	-	-	-	2	10	20	30	21	83
Acre	31	-	-	1	-	2	33	56	83	2	208

Gaza	-	-	-	-	-	-	23	43	30	54	150
Jaffa	9	-	-	-	-	4	22	18	39	4	96
Ramallah	-	-	-	-	-	-	-	1	-	-	1
Nablus	-	-	-	-	-	-	-	1	1	-	2
<b>TOTAL</b>	<b>138</b>	<b>19</b>	<b>8</b>	<b>9</b>	<b>11</b>	<b>62</b>	<b>232</b>	<b>535</b>	<b>683</b>	<b>287</b>	<b>1 984</b>

Source: Atlas of Palestine

It should be noted that the *Atlas of Palestine* mentions that the number of mosques is underestimated. The Atlas has only included 232 Mosques in the final count. As stated in the Atlas, there are over 774 Palestinian villages within the Armistice lines, of which 559 are main villages. Each village likely had one Mosque, and perhaps two for some. The 16 main Palestinian towns had about 5-10 Mosques each, making a total of 80-160. As a result, the total number of Mosques should have been about 800-1000.

However, after careful analysis, we have noted that many experts have argued that the Atlas probably only included Mosques that were easily identifiable, on dedicated grounds and made of stone structure, leaving aside the ones in converted houses or the *Musalla* (Mosque in open yards). The total number of mosques made available in the Atlas (232) is also consistent with the study entitled *Sanctity Denied* (247 destroyed mosques). It is also consistent with the findings of *All That Remains* (from our sample, above 50% of the 418 destroyed villages had at least a mosque or a church described in the publication).

As a final count of destroyed mosques and churches, we refer to the following table which shows the number of destroyed sites which fall within the Armistice line, i.e. in Israel:

TABLE 45: NUMBER OF DESTROY HOLY PLACES

DISTRICT NAME	MOSQUE	CHURCH
Hebron	5	1
Jerusalem	14	0
Nazareth	6	6
Beersheba	2	-
Beisan	10	2
Jenin	4	0
Haifa	44	0
Ramle	22	0
Safad	42	2
Tiberias	14	2
Tulkarm	6	0
Acre	23	6
Jaffa	10	0
Mixed Cities	27	0
<b>TOTAL</b>	<b>229</b>	<b>19</b>

Source: Sanctity Denied, 2004.

Please note that the West Bank (Nablus and Ramallah) and Gaza are excluded from the table. The city of Jerusalem is also excluded, a specific section being dedicated to Jerusalem in our main report (SVP 1).

We were then confronted with the difficulty of estimating an average size of building in square meter. We have relied on various information and photographs available in *All That Remains*. On an average, we have estimated the average size of religious buildings at 250 square meters. We clear admit that some buildings were much larger in size, being two- or three-storey high. However, in smaller villages, the mosque was often a single building of modest size.

Similar to Section 5 related to the valuation of urban buildings, we have decided not to use price data from Atif Kubursi's study (*Palestinian Rights and Losses in 1948*, page 180). Instead, we have used the average of £P 25.84 per square meter (building), this figure representing an average of construction costs per square meter for all types of housing (see Table 43).

Our final valuation table is as follows:

TABLE 46: SUMMARY VALUATION TABLE

District name	Mosque	Church	Total	Estimated size (Site = 250 sq meters)	Average price £P / square meter	Total in £P (1948)
Hebron	5	1	6	1,500	25.84	38,760
Jerusalem	14	-	14	3,500	25.84	90,440
Nazareth	6	6	12	3,000	25.84	77,520
Beersheba	2	-	2	500	25.84	12,920
Beisan	10	2	12	3,000	25.84	77,520
Jenin	4	-	4	1,000	25.84	25,840
Haifa	44	-	44	11,000	25.84	284,240
Ramle	22	-	22	5,500	25.84	142,120
Safad	42	2	44	11,000	25.84	284,240
Tiberias	14	2	16	4,000	25.84	103,360
Tulkarm	6	-	6	1,500	25.84	38,760
Acre	23	6	29	7,250	25.84	187,340
Jaffa	10	-	10	2,500	25.84	64,600
Mixed Cities	27	-	27	6,750	25.84	174,420
<b>TOTAL</b>	<b>229</b>	<b>19</b>	<b>248</b>	<b>62,000</b>		<b>1,602,080</b>

Source: (1) Sanctity Denied  
 (2) Expert judgment  
 (3) Derived from Atif Kubursi's Palestinian Rights and Losses in 1948

## 6.7. LIMITATIONS AND DIFFICULTIES

The above methodology for arriving at a value of holy places is new and original, such exercise having not been performed in the past by Arab or Israel valuers. This is therefore a first attempt to derive a value for real estate associated to a religious purpose.

Our methodology is constrained by the fact that we could not use an estimated cost approach or a non-market valuation technique which are commonly used for valuating contemporaneous cultural heritage claims. It should also be noted that the average size of building could only be estimated from secondary sources of evidence.

## 6.8. AUDIT TRAIL

The audit trail for all data and figure used in this valuation is summarized in the table below.

Evidence type	Reference (Publication/Author)	Page	Remarks
Scope of religious buildings (Church / Chapel, Convent, Hospice, Monastery, Orphanage, Synagogue, Mosque, Tomb / Sheikh, Cemetery, Ruins)	S. Abu Sitta, <i>Atlas of Palestine 1948, 2004</i>	Page 33, Table 2-24	
Scope of destroyed religious buildings (Mosques and churches)	<i>Sanctity denied 2004</i>	Pages 46-49	This is the list of destroyed properties since 1948.
Information on all destroyed villages	Walid Khalidi, <i>All That Remains</i>		Contains information for 418 villages. Some mention of religious buildings is made in the book.
Pictures, maps, description of holy places	<a href="http://www.palestineremembered.com">www.palestineremembered.com</a>		The information is provided on a sub-district basis.
Values per square meter	Sami Hadawi and Atif Kubursi, <i>Palestinian Rights And Losses in 1948, 1988</i>	Page 180, Table 20-12	This is the only proxy available on a market price basis.

## 6.9. ADDRESSING THE GAPS AND RECOMMENDATIONS

Please let us know if you can obtain further information related to the scope of destruction of holy places and historical values.

## SECTION 7: VALUATION OF THE LOSS OF EMPLOYMENT & LIVELIHOOD (LOST OPPORTUNITIES)

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### 7.1. SUMMARY OF FINDINGS

Please find attached an estimation related to the loss of employment and livelihood. The loss represents a grand total of **£P122,739,012** (in 1948 value). The focus of this section is the employment and livelihood losses of Palestine's population who lived in Palestine until 1948.

### 7.2. OBJECTIVES AND SCOPE OF WORK

This section deals with the employment and livelihood losses of Palestinian Arab refugees resulting from the 1948 war. It should be noted that we are concerned with the notion of lost opportunities rather than psychological damage. In carrying out our valuation of the loss of employment and livelihood, we are recognizing that a loss took place in respect of income forgone due to loss of jobs and complementary inputs over a finite horizon. This constitutes a legitimate grievance that had to be included in our comprehensive assessment of Palestinian refugee losses. On the other hand, we have not considered in this section losses related to security, safety, identity, and self-realization. We admit that the denial of these psychological commodities certainly diminish a population's equilibrium and happiness. However, we have been instructed not to review such losses in this report.

Our objective has been to quantify the loss of employment and livelihood by two distinct sub-methodologies. For loss of employment, the scope of our work has been to calculate the loss of employment for only those employable persons from the total registered refugee figures. When refugees were not employed, we have argued that they are entitled to a loss of livelihood.

Our work consisted of estimating the size of the refugee population at different moments in time, the average yearly wage rate and the size of the employable refugee population, and standard costs of living in order to value their loss of employment and livelihood distinctly. The strength of our analysis lies in the fact that our estimation is based upon reliable data extracted from the historical record.

However, in this section, we have not sought to account for social impact factors such as social isolation, marginalization, exclusion, loss of intangible items such as information and artistic work.

### 7.3. BACKGROUND

For many Palestinian, this war marked a rapid transition from a previously stable condition of relative welfare into a condition of poverty, destitution and refugee status that has persisted over an extended period of time for nearly three-quarters of a million people.

After the 1948 war, the national economies in the Middle East region were devastated and the population of neighboring countries such as Jordan and Lebanon experienced significant increases. The great majority of people who fled from their homeland in 1948 were small-scale independent farmers, living on subsistence agriculture rather than wages. They were typically peasants, sharecroppers, small landowners and small urban labourers. Their main source of income was agriculture and other labour intensive works. They suffered a loss of income and livelihood because their means to earn a living and sustenance were destroyed due to the war.

According to studies, it is estimated that approximately 60% of the displaced refugees were peasants, defined either as sharecroppers or small landholders. Traditionally in Palestine, many such people came to own or use land thorough oral contracts only, without legal title documentation. Some, but not all, were making surpluses – there were several categories of peasants. In any event, the loss of land amounted to a loss of opportunity (loss of capital). Their loss was not only material but also personal.

Countries to which Palestine's refugees were displaced did not have agrarian traditions or conditions similar to their homeland, and therefore it took years to resume their former level of living conditions. The 1948 war marked a rapid transition from a previously stable condition of relative welfare into a condition of poverty and refugee status that has persisted for many years for a large number of individuals (and ultimately their descendants). For instance, the populations of the West Bank and Gaza Strip doubled. While some in the West Bank were able to eventually resume subsistence farming, many others suffered over the long-term from the loss of access to the main Mediterranean port cities in historic Palestine as well as opportunities lost by the destruction of Arab markets. It was recorded at the time that Lebanon's population also doubled.

The period between 1940 and 1960 was a hiatus period when the refugees were almost completely dependent on support provided by UNRWA (which had been created in December 1949 in direct response to the need). It was not until later, when the Palestinians began to recover their earning capacity, particularly in the period between the 1960s and mid-1980s, when many Palestinians migrated to Persian Gulf states to take advantage of the burgeoning oil economies.

#### 7.4. AVAILABLE EVIDENCE FOR VALUATION

It should be pointed out that this is a first attempt in valuing the loss of livelihood and employment for Palestinian refugees. As a result, we could not rely on findings from past assessments and had to design a specific methodology.

A wide range of data is available for this section regarding conditions of labor and living standards. Our methodology is based on those documents and studies available at this stage. These documents were selected for their credibility and relevance. None of the past studies address the issue of loss of employment and livelihood, but nevertheless, relevant data that is available in various documents allow us to build our analysis in a meaningful way.

We have used the following sources:

##### (A) PRIMARY SOURCES:

- A Survey of Palestine (1946): The survey is probably one of the most reliable sources of information on pre war Palestine. It is also to be considered as an independent source of information. A Survey of Palestine is interesting for loss of employment and livelihood because it provides a wide range of socio-economic and labor data. This document has been used to extract:
  - o Income and wages data for 1947-1948 for different occupations and categories of population, including median daily wage rates in selected occupations;
  - o Employment data trends (1944-1946), including government employment statistics broken down by population constituents (e.g. Arab, Jew, British nationals, Other)

##### (B) OTHER SOURCES OF EVIDENCE:

- Final Report of the United Nations Economic Survey Mission for the Middle East, An Approach to Economic Development in the Middle East, Parts I and II (28 December 1949), from which we extract:
  - o An estimate of the number of refugees
  - o Occupational capacities
- Loftus National Income, 1944. Information used relates to:
  - o The estimated number of workers in each branch of production.
- UNRWA documents has been used to extract data concerning the
  - o Number of Refugees
  - o Geographical distribution of refugees
  - o Growth of refugee population
- Atif Kubursi entitled "Compensation for Loss of Neighbourhood" (McMaster University).

We have also been referring to other economic publications for a benchmark purpose. For instance, we have been referring to a study by Lluch, Powell and Williams that focused on consumption patterns in different countries in a defined period, between 1953 and 1969<sup>18</sup>.

## 7.5. METHODOLOGY OVERVIEW AND RATIONALE

### (A) GOALS

Our methodology relies on data obtained from the historical record, mostly data related to employment. Our approach is income-based (labor oriented) and it is comprised of two parts:

1. The first part of this methodology seeks to evaluate the loss of employment. We analyze the size of the refugee population and its constituents who were previously engaged in different economic activities. We calculate the average yearly wage of Palestine's labor force and apply this across the employable population of refugees. In this way, the value of losses of the employed section of the refugee community is calculated to be £P 42.6 million.
2. The second part of the methodology seeks to calculate loss of livelihood. We analyze the annual cost of living; which is based on an economic assumption (based on our extensive research) that, on average, people spend 87% of their disposable income on consumption goods and services. Using this as a basis, our analysis evaluates the loss of livelihood at £P 26.6 million.

The scope of our methodology is to value financial losses endured by a family as a whole. In pre war Palestine, the livelihood depended primarily upon the work of the male population; however, it should be noted that, within the context of an agricultural economy such as Palestine, females, children and the elderly also contributed to the extended family's subsistence.

We have been considering another approach based on economic theory and the notion of 'utility', the rationale being as follows.<sup>19</sup> Economics is based on the fundamental postulate that human beings when unimpeded would seek to arrange their economic affairs in such a way as to obtain the greatest possible satisfaction. Any arrangement that does not produce this outcome is inadequate and will soon be displaced by one yielding a higher level of satisfaction (or 'utility'). Circumstances, i.e. the 1948 war, outside the objective conditions of the market that preclude such an outcome imply lower levels of utility, loss of welfare, as it is usually called. The size of this loss is indicated by the difference between the levels of satisfaction attainable in the two circumstances. However, we have decided not to use the utility approach for the simple reasons that utility functions at the time of the war in 1948 are difficult to determine. Under the utility approach, elements impacting on the loss of welfare can lead to judgment and speculation because individuals differ in terms of preference for public and private goods and there are not

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<sup>18</sup> Patterns in Household Demand and Savings, 1977, Oxford University Press

<sup>19</sup> The notion of utility is well document in the economic literature. Atif Kubursi has consistently used such approach. For instance, in his paper entitled "Loss of Neighborhood", he described the income and utility approaches.

reliable indices that can help us to measure such preference. Indeed, individual utility depends entirely on the volume of commodities and services they consume and on the needs they satisfy.

Please note that we are willing to develop such utility analysis in another version of the report and use it as a benchmark for negotiation purposes.

#### (B) ASSUMPTIONS

The major assumption is about the length of the period of time for which such loss should be computed. For loss of employment, we have assumed that refugees would be entitled to a compensation for one year. For loss of livelihood, we have assumed that the indemnity period would run over the three years after the war. We are aware of the arbitrary nature of such indemnity period and will revise our estimate if necessary.

We have also assumed that most of the refugees who were either regularly employed in the economy or fell outside the traditional economic sectors in pre-1948 Palestine, suffered a loss of livelihood as result of the 1948 war by losing direct or indirect earnings to sustain their livelihood.

Average wage per month is calculated from the average daily wage of Arab labour from available records and research. Our valuation work quantifies the loss of wages or salaries of refugees who had previously been employed in the "regular" economy and who lost their principal source of income as a result of the 1948 war.

This valuation methodology only considers refugees registered with UNRWA as eligible since we assume that people who did not register with the specialist UN agency, had no need of their support due to having recourse to other independent financial means or other resources allowing them to re-establish their family life.

#### (C) VALUATION PRECEDENTS

We have first been considering the study made by Atif Kubursi entitled "Compensation for Loss of Neighborhood" (McMaster University). He has chosen not to review property losses but to limit his analysis to the conceptualization of compensation for refugees not choosing to return to their homeland. His estimation is related to the loss of homeland, or neighborhood as he called it.

There are a few international compensation mechanisms that have been dealing with the loss of employment and, to some extent, the loss of livelihood. We have been reviewing a few compensation programs to find out that there are no readymade methods or widely accepted standards to values the loss of livelihood or loss of chance or opportunity. Most of the compensation proposed under international programs is made on a lump sum basis.

Let's now introduce of few of these programs. For instance, a German Compensation program for National Socialist Crimes has been set up in 1949, the Federal Republic of Germany working to face up to the crimes committed by the Nazi regime and acknowledging its obligation to

provide material restitution. German payments have focused both on restitution and on compensation for individual suffering, loss of life, health, and liberty. A total of over DM100 billion (DM200 billion in today's value or US\$104 billion) have been made available in compensation, and about DM1.2 billion (\$624 million) continue to be paid each year to about 100,000 pensioners.

The Bundesentschädigungsgesetz laws compensate individuals persecuted for racial, religious, or ideological reasons and also apply to persons who were persecuted because of their nationality. The following loss types are considered:

- Physical injury and damage to health
- Restrictions on personal freedom
- Damage inflicted upon economic and professional growth
- Damage done to personal property

The Bundesentschädigungsgesetz (Federal Law for the Compensation of the Victims of National Socialist Persecution, 1956) intended to compensate individuals persecuted on account of their race, their religion or their political beliefs. Over 4 million claims have been submitted under this legislation. Approximately 40 percent of those receiving compensation under this law live in Israel, 20 percent in Germany, and 40 percent in other countries. It should also be highlighted that the united Germany in the 1990s contributed DM1.8 billion to Reconciliation Funds in Poland, Belarus, the Russian Federation, Ukraine, and the Czech Republic. These funds have paid an average of DM1,000 to each victim, mostly former forced laborers.

The United Nations Compensation Commission (UNCC) also offered lump sum compensation for people being forced to leave Kuwait. For instance, Category "A" claims are claims submitted by individuals who had to depart from Kuwait or Iraq between the date of Iraq's invasion of Kuwait on 2 August 1990 and the date of the cease-fire, 2 March 1991. Compensation for successful claims in this category was set by the Governing Council at the fixed sum of US\$2,500 for individual claimants and US\$5,000 for families. However, where a claimant who had filed claims in category "A" only, he or she was eligible to receive a maximum category "A" payment of US\$4,000 for individuals and US\$8,000 for families. The Commission received approximately 920,000 category "A" claims<sup>20</sup>. For a discussion on mental pain and anguish loss types, one may refer to the following UNCC report: Recommendation made by the Panel of Commissioners concerning individual claims for serious personal injury or death (S/AC.26/1994/1)<sup>21</sup>.

Under the German Foundation Act, the International Organization for Migration (IOM) has also been allocated EUR276 million to pay eligible claimants for Slave and Forced Labor.<sup>22</sup>In the framework of its German Forced Labour Compensation Programme (GFLCP), IOM received

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<sup>20</sup> See <http://www2.unog.ch/uncc/>

<sup>21</sup> One can also see the UNCC Governing Council Decision S/AC.26/1991/3, Decision taken by the Governing Council of the United Nations Compensation Commission during its second session, at the 15th meeting, held on 18 October 1991.

<sup>22</sup> See the following web site: [http://www.compensation-for-forced-labour.org/english\\_home.html](http://www.compensation-for-forced-labour.org/english_home.html)

329,000 claims for Slave and Forced Labour, 32,000 claims for Property Loss and 41,000 claims for Personal Injury. As of January 2004, IOM had resolved 80% of all Slave and Forced Labour claims and had recommended 77,500 claims for payment. Under the German Foundation Act, IOM was also designated to develop and implement social programmes for the benefit of Sinti and Roma who were victims of Nazi injustice. IOM's Humanitarian and Social Programmes (HSP) also use funds made available through the Holocaust Victim Assets Litigation (Swiss Banks) for humanitarian and social assistance to Roma, Jehovah's Witness, disabled and homosexual survivors.

We have not been able to identify a particular methodology developed for valuing the loss of opportunity or livelihood from past compensation programs. We highlight that such compensation was made by lump sum payments, the origin of the lump sum being not always clear.

## 7.6. ANALYSIS

### (A) INTRODUCTION

Our methodology consists of two distinct parts. Firstly, we analyze the Palestine population engaged in employable work and conclude that 25% is employable. This figure for employable population has been extracted from the Loftus book entitled National Income of Palestine 1944. Then we calculate the average wage in the employable population during 1944 and actualize this figure to arrive at an average 1949 wage. We multiply this average yearly wage by 25% (to reflect the 25% of employable population) to arrive at the annual value of losses incurred by those individuals who, prior to the war of 1948, had been in paid employment.

The second part of this methodology considers livelihood compensation only for those people who were not part of the abovementioned loss of employment calculation i.e. the remaining 75% of the refugee population. Most of these refugees were either not in regular paid employment or somehow otherwise fell outside the traditional economic sectors of pre-1948 Palestine, but will nevertheless have suffered a loss of livelihood as a result of the 1948 war by losing the source of direct or indirect earnings to sustain their livelihood.

We seek to calculate this loss of livelihood by analyzing the proxy 'cost of living' per person. Our calculation of cost of living per person is based on data relating to propensity to consume. That is, the empirical concept that people are found to spend a specific percentage of their income on basic livelihood requirements. Finally, we multiply cost of living per person into the rest of the 75% of refugee population and thus we establish annual loss of livelihood.

### (B) NUMBER OF ELIGIBLE REFUGEES

As argued in Section 3 of this report, the total refugee population in 1949 has been estimated at 726,000 persons. After establishing this initial figure for the Palestine's refugee population in 1949, we subsequently calculate the increase in number of registered refugees with UNRWA. It

is estimated that UNRWA-registered refugees represent three quarters of Palestine's refugees worldwide.

The number of registered Palestinian refugees has grown markedly from 726,000 in 1949 to more than 4 million in 2006; and continues to rise due to natural population growth.

TABLE 47: ANNUAL GROWTH RATE OF UNRWA-REGISTERED PALESTINIAN REFUGEES AND FEMALE PERCENTAGE FROM 1949-JUNE 2005

Year	Total Refugees Population	Annual Growth Rate	Numbers of Females	Females (%)
1949	726,000			
1953	870,158		430,483	49,5%
1955	912,425	1,9%		
1960	1,136,487	2,9%		
1965	1,300,117	2,9%		
1970	1,445,022	2,5%		
1975	1,652,436	2,7%	803,030	48,6%
1980	1,863,162	2,2%	905,606	48,6%
1985	2,119,862	2,6%	1,033,054	48,7%
1990	2,446,516	3,8%	1,204,644	48,8%
1995	3,246,044	4,9%	1,588,505	48,9%
2000	3,737,494	3,1%	1,831,806	49%
2005	4,283,892	2,3%	2,099,107	49%

Source : UNRWA, June 2005

The growth rate shown here is taken from UNRWA documents and shows the percentage annual growth in the number of refugees registered. Not all refugees register births and deaths of family members immediately and thus, the annual growth in registered refugees is an approximation of the annual growth rate of the refugee population.

This figure also includes displaced people after the 1967 war; we have only considered registered refugees with UNRWA in 1949. Thus we obtained the growth in number of refugees from 1949 to 2005. However, our analysis does not assess a loss of employment over this entire period of time (Should we have applied our methodology up to today, the total loss figure would have resulted at approximately £P 108 billion).

### (c) CHOICE OF METHOD

To evaluate the loss of employment and livelihood, at least two methods can be applied:

#### METHOD A

Method A is divided into two distinct parts.

*Part 1* analyses the number of employable refugees from UNRWA data. The employability of refugees is based on data extracted from Loftus' National Income of Palestine. Part 1 of this methodology seeks to calculate their loss of employment by multiplying average wages across the employable population.

*Part 2* assumes that most refugees were previously either regularly employed or fell outside the traditional economic sectors of pre-war Palestine, and all these people have suffered a loss of livelihood as a result of the 1948 war by losing their earning capacity (and being unable to replace); whether direct or indirect earnings to sustain their livelihood.

In order to derive a proxy for a base level of income in a subsistence living situation, we use a measure of cost of living. This proxy is on the basis that to cover one's cost of living (and no more) is, by definition, the base level of income necessary for sustainability. Accordingly, we derive a standard cost of living based on the propensity to consume (consistent with the following section 8 related to the estimation of household effects) and multiply this annual measure by the remaining unemployed refugee population to arrive at a total annual loss of livelihood in 1949. Then, we apply this method over a three year period between 1949 and 1952.

A perceived strength of Method A is its reliance on data from different sources. It also recognizes the contribution of female part-time labor in a balanced way.

#### METHOD B

Method B calculates the number of refugees, their location and the number of households after the 1948 war. The method analyzes: wages data according to country; occupational capacities of refugees; and compares standards of living in various countries. We analyze data to arrive at an estimated number of people potentially affected by a loss of employment and also loss of livelihood using selected socio-economic variables based on comparisons of standard costs of living, occupational capacities of refugees and wages data.

This methodology proposes a multi-stage indemnity period because it is necessary to do so in order to reflect employment realities for Palestinian refugees since 1948. The analysis of loss periods implies that, at least from a theoretical point of view, refugees were able to resume employment from time to time in their host country and/or found a level of annual earnings similar to that in pre-war Palestine. The same assumption can be made for their standard (and thus 'cost') of living.

The final calculation of employment losses will be done on the basis of time periods, which can be divided into three periods.

1. Total Loss period - The period of complete interruption immediately following, and directly caused by, the 1948 war. This is the period when no activity is assumed to have been possible and when, in effect, refugees suffered a total loss of employment and livelihood.
2. Recovery period - This followed the end of total loss/interruption period above. Recovery is a period of limited length, which is an interim period during which useful, gainful employment could start to be found by refugees.

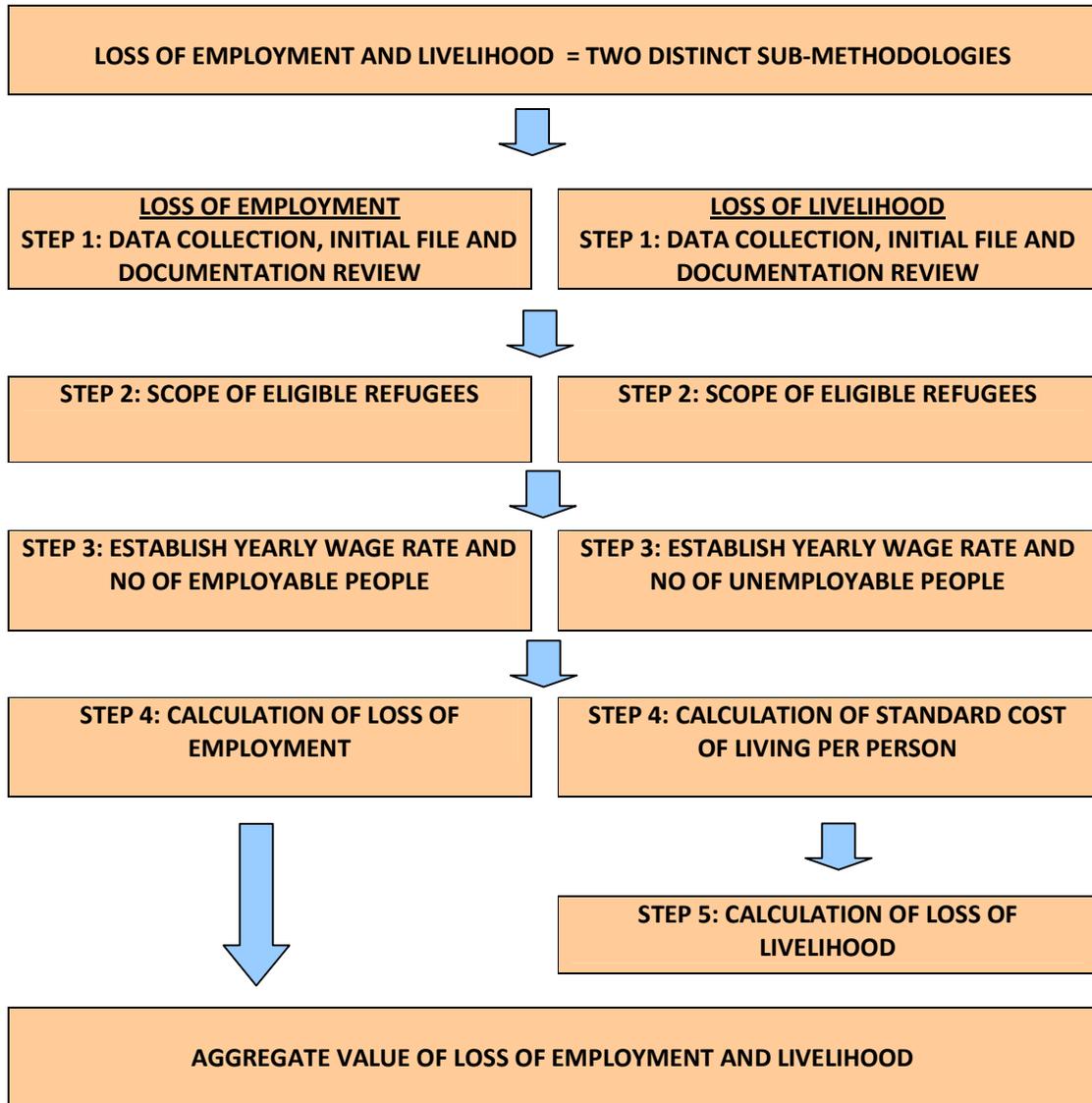
3. Residual Period - This is the period during which pre-war earning capacity is assumed to be fully recovered. Those suffering losses would now be able to reinstate their pre-1948 livelihood.

The weakness of this methodology is that the time period assumptions set out above cannot be regarded as appropriate in all circumstances, especially for those people who have remained in refugee camps from 1948 right up to the present day. This methodology requires an extensive data set, which is unfortunately not available at this stage. Accordingly, this method is declined in favor of method A.

As previously mentioned, Method A stands out in terms of reliability, accuracy and concise analysis due to the availability of data. After reviewing UNRWA data available, we are of the opinion that there is sufficient material to support an individual approach. This methodology gives credibility to the claim of employment and livelihood loss.

In the following page, we present the logical framework used to apply Method A.

FIGURE 6: LOGICAL REVIEW FRAMEWORK FOR LOSS OF LIVELIHOOD AND EMPLOYMENT



## (D) CALCULATION OF LOSS OF EMPLOYMENT

**STEP 1: ELIGIBLE REFUGEE POPULATION IN 1949**

In this section, the size of the refugee population is assessed during the post-war years in order to value the loss of livelihood. Data is sourced from the final report of the United Nations Economic Survey Mission for the Middle East Part-I. This states that the original number of refugees, being persons who fled from Palestine and were unable to return, was 726,000. This figure was derived by the United Nations on the basis of their population estimates by village and religion as of 31<sup>st</sup> December 1946.

TABLE 48: ESTIMATE OF NUMBER OF ARAB REFUGEES FROM ISRAELI HELD TERRITORY

<b>Total No of Non-Jewish Population on 31<sup>st</sup> December 1947</b>	
Settled on 31 December 1946	1,230,000
Nomadic	127,000
Natural Increase	31,000
<i>Total</i>	1,388,000
Total non-Jewish who may have fled from Palestine since 31 Dec 1947	
Settled non-Jews within territory held by Israeli Army on 1 May 1949	736,000
Natural increase between 31 <sup>st</sup> 1946 to 31 <sup>st</sup> 1947	18,000
Nomads	105,000
<i>Total Non Jew Population within 1<sup>st</sup> May 1949 boundaries</i>	859,000
Non Jewish population still in Israel	
	133,000
<b>Total refugees from Israeli held territory</b>	<b>726,000</b>

Source: Final report of the United Nations Economic Survey Mission for the Middle East Part -I, Page 22

We omit refugees who were displaced to Europe and the Americas. In our opinion, we submit this is reasonable since it can be assumed that these people had sufficient capital or other means to afford the travel and displacement expenses, that will have been necessary as well as likely family or institutional connections in their host country, meaning they suffered minimal losses and/or were able to resume their income within a shorter period of time.

The geographical distribution of refugees has been done as follows:

TABLE 49: GEOGRAPHICAL DISTRIBUTION OF REFUGEES

<b>Areas</b>	<b>Geographical distribution of Refugees after war in 1948</b>	<b>Geographical distribution of Refugees on June 30th 2005</b>
<b>Arab Palestine</b>	280 000	
<b>Egypt</b>	7000	
<b>Gaza</b>	190 000	969 588
<b>Iraq</b>	4000	
<b>Jordan</b>	70 000	1 795 326
<b>Lebanon</b>	100 000	401 071

<b>Syria</b>	75 000	426 919
<b>West Bank</b>		690 988
<b>Total</b>	<b>726 000</b>	<b>4 283 892</b>

### STEP 2: CALCULATION OF YEARLY AND DAILY WAGE RATES

In this section we analyze yearly and daily wages of the employed population of Palestine in 1944. We are not including those living in a subsistence economy for which precise information is lacking. We have calculated the daily average wage per person. People displaced from their homes were mostly small-scale farmers, laborers and manual industrial workers and indeed they suffered a loss of wages. However, we do not have precise statistics on this matter.

We calculated monthly wages by extrapolating from daily wages and then, in turn, converting monthly into an annual figure. Daily wages data of the Arab Population in 1945-46 have been extracted from the Survey of Palestine.

Throughout our analysis, we have regularly sourced data from the Survey of Palestine which was an official study produced by the Government of Palestine (under the mandate) for the years of 1944-1945. The survey has three volumes and the following data was extracted from Volume Two. It was prepared by statisticians for the United Nations Special Committee on Palestine (UNSCOP) in December 1945 and January 1946. It contains a wealth of statistical data about many sectors of life during the British mandate and represents, in our view, a credible and reliable source of information regarding Palestine at the time.

The wage rates are as follows:

TABLE 50: WAGE RATES FOR INDUSTRY AND AGRICULTURE IN 1944

Occupation	Daily wage (mils)	Monthly £P	Yearly Wage £P
Tile maker	538	13	161
Carpenter	658	16	197
Machine printer	549	14	165
Hand compositor	542	14	163
Cardboard box maker	231	6	69
Tobacco	410	10	123
Baker	500	13	150
Fitter	818	20	245
Agriculture -All	438	11	131
<b>Average</b>	<b>520 mils</b>	<b>£P 13</b>	<b>£P 156</b>

Source: Survey of Palestine, Volume II, Page 735

We have derived a computation so as to actualize the wage value in 1948. The following table explains our calculation of daily wages:

$$\text{Average Daily wages} = 520 \text{ mils (where } 1000 \text{ mils} = \text{£P } 1)$$

Average Monthly wage = 520 X 25 (working days in a month) = 13,000 mils = £P13

Average Yearly wage = 13 X 12 months = £P156

Actualization Rate = 1.508 from 1944 to 1948 (See Section 3.5)

Actualized Value= £P156 x 1.508 = £P235

Actualized average daily wage (in 1948 value) comes to **£P235** on a yearly basis.

### STEP 3: TOTAL EMPLOYABLE POPULATION

The following table shows the estimated occupational capacities of Palestine's labor force, according to Loftus (page 26 of National Income 1944): *"It is emphasised that precision of the aggregate is much higher than individual parts. In agriculture, industry, government employment, war department employment, military pay and allowances and housing the division between Palestine and Jews are believed to be precise. In the remaining categories the division is less precise"*

It is noted that in 1944 total employable Palestinian labor was 300,000. In farming contexts, the entire family typically works at some level to ensure subsistence; including young children, women and elderly relatives (the farm represents a 'family business' with all family members taking a share of the toil). We have made the assumption that such occasional workers in the subsistence economy would be received a compensation under the loss of employment but would receive it under the loss of livelihood category. It is important to note that employable population reflects only the wage earners from the population; as said earlier, we have assumed that 25 percent of the new refugee population was engaged thus in wage-earning formal employment.

TABLE 51: TOTAL PALESTINE LABOR FORCE IN 1944

Branch of Production	Number engaged
Agriculture, livestock, fisheries, and forests	152.000
Industry and handicrafts	13.000
Housing	20.000
Building and construction	
War department	26.000
Palestine Troops	2.000
Transport and communication	15.000
Commerce and finance, hotels, restaurants and cafes	29.000
Government and local authorities	32.000
Others	11.000
Total	<b>300.000</b>

Source: Loftus National income, Page 25

In Section 3, we have estimated the total Arab population in November 1947 at the level of 1,210,920 (Estimation taken from Village Statistics 1945, p. 39 Table I). Indeed, in applying the

25% ratio of employed people we arrived at about 300,000 persons. This finding confirms the result of Table 30.

#### STEP 4: CALCULATION OF LOSS OF EMPLOYMENT IN 1949

After calculating the average wage and employable population, we calculate the loss of employment by multiplying the number of employable people by their average yearly wage (see above) of £P235. As established in step 3 above, our assumption is that 25% of the newly-created refugee population was employable. We therefore adopt this in the computation below table and derive the total annual loss of employment in 1949 to be approximately **£P42.7 million**.

Calculation of wage loss of employable population:

Year	Number of refugees (A)	25% of employable refugee population (B)= (A) x 25%	Yearly wage in 1949 (C)	TOTAL LOSS (B) x (C)
1949	726 000	181 500	£P 235	<b>£P 42 697 512</b>

Please note that the “indemnity” period for the loss of employment would run over 1 year. After one year, we assume that refugees had again means of subsistence (for the 25% of them being fully employed before the war).

#### (E) CALCULATION OF LOSS OF LIVELIHOOD

##### STEP 1: ELIGIBLE REFUGEE POPULATION IN 1949

Refer to Step 1 of the previous section.

##### STEP 2: CALCULATION OF YEARLY AND DAILY WAGE RATES

Refer to Step 2 of previous sections.

##### STEP 3: TOTAL POPULATION OUTSIDE FORMAL (EMPLOYED) ECONOMY

From the above section, we argued that 25% of the Arab population was fully officially employed. We now argue that the remaining, or 75% of the Arab population, live outside the formal economy but still had a standard of living which was lost as a result of the war in 1948. As a result, out of the total refugee population of 726,000, we conclude that 544,500 individuals (75%) should be compensated for the loss of livelihood.

**STEP 4: CALCULATION OF STANDARD COST OF LIVING**

We analyze the cost of living for this remaining refugee population so as to assess their loss of livelihood. There is no specific data available on standard cost of living for Palestine's refugee population and so we had to analyze consumption parameters related to basic living conditions.

However, consumption data are available. Consumption is in fact defined as the using up of a resource (e.g. money) for the adoption, use and disposal of goods and services. We assume that the cost of consumption includes expenditure on food and other basic living expenses and other personal care expenditures.

We have derived a benchmark based on consumption parameters for Palestinian Arab people in 1948 from the following table. The study done by Lluch, Powell and Williams in 1977 focused on different countries in a defined period, between 1953 and 1969<sup>23</sup>. In the study, a benchmarking procedure was designed in order to convert local values into 1970 US dollars.

TABLE 52: CONSUMPTION PATTERNS IN VARIOUS COUNTRIES

	Referred year <sup>24</sup>	Per capita GNP <sup>25</sup> (USD)	Per capita disposable income (USD)	Per capita private consumption (USD)	Consumption on income	Consumption on GNP
	A	B	C	D	D/C	D/B
Korea	1962	142	115	120	104%	85%
Thailand	1964	148	115	102	89%	69%
Philippines	1961	161	-	125	-	-
Taiwan	1962	216	146	162	111%	75%
Jamaica	1964	541	436	432	99%	80%
Panama	1964	564	-	447	-	-
South Africa	1962	596	461	401	87%	67%
Greece	1963	676	564	501	89%	74%
Ireland	1962	1,014	820	779	95%	77%
Puerto Rico	1961	1,023	-	828	-	-
Italy	1962	1,207	916	782	85%	65%
Israel	1964	1,468	1,228	1,058	86%	72%
UK	1962	1,900	1,331	1,236	93%	65%
Australia	1961	2,192	1,662	1,489	90%	68%
West Germany	1962	2,203	1,474	1,277	87%	58%
Sweden	1962	2,962	1,956	1,694	87%	57%
US	1962	3,669	2,481	2,249	91%	91%

Source: Patterns in Household Demand and Savings, 1977, Oxford University Press, chap. 3

To define a proper parameter of consumption in Palestine before 1948 we refer to those nations with a per capita GNP lower than USD700 (as it was the case in pre war Palestine), which is an average of 96.50%, meaning that 96.50% of the income is consumed. But we must consider that:

<sup>23</sup> Patterns in Household Demand and Savings, 1977, Oxford University Press

<sup>24</sup> Reference year (generally for a period among 1964 and 1967, though different from case to case)

<sup>25</sup> All values in the table are expressed in 1970 US\$

- There is some evidence that the marginal propensity to consume is lower in countries with higher rates of growth in income and markedly smaller for farmers than householders (both rural and urban)<sup>26</sup>
- Subsistence expenditure for large families is higher than for small ones, but on a per capita basis it tends to be less (scale economies exist in household consumption)<sup>27</sup>.

Therefore, we have assumed that it is correct to adjust this factor of 96.50% to take into account the reality of the Palestinian economy at the time of the war. Since we have no scientific data to make the adjustment, we propose to assume a reduction of around 10 percentage points from the 96% world average, obtaining 87% as the final consumption parameter in Palestine before 1948. This figure is close to the one quoted in the above table for Israel in the post war context.

Livelihood in a subsistence economy, for the purposes of this analysis, is taken to mean that people who were not earning wages were nevertheless also spending some parts of their income on food and other necessities. A rate of growth in incomes and marginal propensity to save is markedly larger for farmers than householders (both rural and urban) and subsistence expenditures (in absolute terms for each household) for large families are higher than for smaller ones, but on a per capita basis, it tends to be less.

After having estimated to percentage of income being consumed, we need to estimate the share of consumption related to the living standards. We proceed as follows: the below table provides benchmark data related to the composition of goods and services.

TABLE 53: GOODS AND SERVICES PER ECONOMY TYPES

	Overall average <sup>28</sup>	Clusters' average <sup>29</sup>	100-500\$	500-1000\$	1,000-1,500\$	Over 1,500\$
Food	32%	32%	49%	28%	27%	24%
Clothing	5%	5%	6%	4%	5%	6%
Housing	9%	9%	10%	11%	9%	6%
Durables	2%	2%	1%	1%	2%	2%
Personal care	2%	2%	3%	2%	1%	1%
Transport	2%	2%	2%	5%	2%	1%
Recreation	2%	2%	2%	1%	3%	3%
Others	2%	3%	3%	4%	2%	1%
Total	56%	57%	76%	56%	52%	43%

Source: Patterns in Household Demand and Savings, 1977, Oxford University Press, chap. 3

The Lluch, Powell and Williams study provides details of the composition of people's expenditure. The main expenditure is on food. The percentage of food out of overall expenditure is always the highest, although decreases as income levels rise. We assume food should not be considered part of the losses to be valued, due to its portability and the probable day-by-day

<sup>26</sup> Lluch, Powell and Williams, p. 43, 204, 256

<sup>27</sup> Lluch, Powell and Williams, p. 243

<sup>28</sup> Obtained by adding the values for all the 17 nations and dividing the obtained number for 17

<sup>29</sup> Obtained by adding the average values of the 4 clusters of nations and dividing the obtained number for 4

consumption and low quantity in storage. We also avoid considering personal care and recreation expenses, which are not considered as moveable assets in our study.

We aggregate clothing, housing, durables, transport (as it includes communication) and other goods and obtain 22% of total expenditures at a per capita GNP of USD 100-500 and 25% for a per capita GNP of USD 500-1000. Accordingly, we select an in-between figure of 24% as the value for relevant consumption expenditure in movable assets by the Arab population in 1948.

The standard cost of living is provided from the following calculation. It is the cost of living that is being used as a proxy for loss of livelihood in a subsistence context.

Yearly Income 1948 (A)	Consumption rate over income (B)	Percentage of living Cost in the economy (C)	Yearly cost of living (A) x (C) x (B)
£P235	87%	24%	£P49

#### STEP 5: CALCULATION OF LOSS OF LIVELIHOOD

The final steps seek to calculate loss of livelihood by multiplying average yearly cost of living across 75% of the refugee population in 1949. This considers only those people who were unemployable; in other words, those who were outside the 'loss of employment' category. The table below illustrates the abovementioned calculation arriving at a loss of livelihood total value in the amount of **£P26,680,500**. This is for one year only (1949).

Year	No. of refugees (A)	75% of refugee population (B= (A) x 75%)	Average cost of living (C)	Total Loss (B) x (C)
1949	726 000	544 500	£P49	£P26,680,500

However, we have assumed that the indemnity period for the loss of livelihood would be equal to three years. Indeed, for people living under the subsistence economy and resettling into camps and other countries (usually with less qualifications than the ones employed in the regular economy), it takes more time to recover the loss.

The total figure for loss of livelihood is therefore:

$$\text{£P26,680,500} \times 3 = \text{£P80,041,500}$$

#### (F) TOTAL LOSS OF EMPLOYMENT AND LIVELIHOOD IN 1949

The combined value of the loss of employment and livelihood comes to;

Loss of employment	£P42,697,512
--------------------	--------------

+	Loss of livelihood	£P80,041,500
		=====
		<b><u>£P122,739,012</u></b>

Please note that this figure almost exceeds the total value of the national income of Palestine as estimated by Loftus in 1944 (estimated at £P123,036,000). However, we understand that the NSU may also decide to compensate for the entire refugee population between 1948 and today. In such case we would be willing to run simulations and we confirm that we have obtained data over the period 1952 to 2006.

## 7.7. LIMITATIONS AND DIFFICULTIES

This methodology only accounts for employment and livelihood for the year 1949. We are not able to assess losses of specific later years due to non-availability of relevant data. Uncertainties as to the size of Palestine's subsistence economy at the time of the war and also as to the number of refugees coming from this subsistence economy are significant limitations to our study.

Our main limitation is the exclusion of many small owner-farmers, members of communal settlements, independent artisans and professional persons. It was quite frequent in such a rural economy that a proportion of income generated from the land was saved and later invested to increase the capital or productivity. Our methodology does not account for this, which might lead to an underestimation of the full extent of losses.

Our methodology is also constrained by the fact that we include only those refugees registered with UNRWA. For the entire post-war period, we have obtained the number of UNRWA-registered refugees on a five-yearly basis

## 7.8. AUDIT TRAIL

The audit trail is summarized in the table below.

Valuation Items	Reference (Publication/Author)	Page	Remarks
Annual Growth rate of Registered Palestine Refugees population and Female Percentage from 1949-June 2005	UNRWA		This does not provide a very accurate basis for growth rate not all relevant info is present
Estimate of Number of Arab Refugees from Israel held Territory	Final Report of the United Nations Economic Survey Mission for the Middle East, Part 1	Page 22	This is a good source for no. of refugees specially for the year 1949
Wage rate for industry and agriculture in 1944	Survey of Palestine" Volume II	Chapter XVII, Page	Does not account for unregistered Arab laborers wages in

		735	unorganized sectors and female part-time labor
Total No of Palestine Labor Force in 1944	Loftus' National Income of Palestine Daily Wages and Earnings	Page 25	This is estimate account only registered laborers
Calculation of wage Loss of Populations	Our calculations		
Yearly costs of living	Our calculations		
Calculation of livelihood loss	Our calculations		

### 7.9. ADDRESSING THE GAPS AND RECOMMENDATIONS

This methodology has been introduced for the first time to evaluate loss of employment and livelihood. This methodology does not quantify the loss of marginalization, social exclusion and artistic work in our evaluation nor those persons displaced who were not registered as refugees with UNRWA.

We recommend that more data or the necessary resources are made available to allow even more extensive research of data sources to establish what additional data may exist. Potential new sources of additional data should be explored.

## SECTION 8: VALUATION OF PERSONAL PROPERTY & MOVABLE ASSETS

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### 8.1. SUMMARY OF FINDINGS

In this section we provide a valuation of Palestinian refugee losses related to personal property and movable assets. We have collected data and information on various items, including livestock, private vehicles, commodities, foreign assets and household chattels owned by Palestinian Arabs. We arrived at an aggregate figure of **£P44,853,524** (in 1948 value). This figure can be broken down as follows:

6. £P5,072,520 (1948) in livestock and agricultural implements
7. £P235,534 (1948) in private vehicles
8. £P1,765,265 (1948) in commodities
9. £P14,542,770 (1948) in foreign assets
10. £P23,237,435 (1948) in clothing and household chattels.

### 8.2. OBJECTIVES AND SCOPE OF WORK

It is very difficult to demonstrate the extent of movable property losses. Indeed, many evaluation studies published in the past have concluded that it was impossible to reach an aggregate value of Palestinian Arab refugee movable property since there was no means of knowing what types of property existed in pre war Palestine. Furthermore, “movable asset” is a term defined in many different ways from one estimate to the other.

It was clear from the beginning that market valuation could not be conducted for two major reasons:

- 1°) the scope of holdings left behind is not precisely identified; and
- 2°) market data for such holdings are not necessarily available.

Although many studies have concluded that no precise and individual quantification can be seriously envisaged, we have still been able to develop a methodology based on historical surveys and benchmark data. The work of UNCCP or Kubursi can also serve as a good starting point as it mentions sources of data. We have spent great time gathering information on past

assessment to see what kind of data could be extracted from the historical records. In the following pages, we provide details of these approaches.

Recourse has been made to some compromising conventions or valuation techniques in order to achieve single amount measurement in situations involving significant uncertainties i.e. lack of reliable market data. Our valuation of movable property is based on the historical record, references being made to benchmark information from other regions of the world.

### 8.3. BACKGROUND

Hundreds of thousands of Palestinians were forced to leave their homes by Israeli forces during the 1948 War. Although many “absentees,” as they are legally known, still live in Israel, most are currently refugees living outside of the country. Most refugees fled to what is now known as the West Bank and the Gaza Strip; the rest went to Lebanon, Syria, Jordan and other countries within and outside the region. By the end of 1948, four fifths of the Arab Palestinian population had fled from Palestine. In the course of their flight, the refugees left behind their belongings and all manner of property, including their homes, private property, livelihood/source of employment, farms, shops, factories and financial assets.

It is difficult to estimate the exact scope of movable assets belonging to Palestinian refugees. In A Survey of Palestine, it is noted that the distribution of assets is the more difficult on account of the lack of homogeneity of the population. There exists a wide variety of standards of living, ranging from that of nomadic Bedouin in the desert areas to the cultivated Palestinian in the larger towns.

In our context, it is evident that the average Palestinian refugee had at its disposal a variety of movable assets, e.g. vehicles, cash, households, food and clothing, etc. Ordinary household effects would include furniture, tools and similar objects used in daily life. For the wealthiest, it would include art works and various financial securities.

### 8.4. AVAILABLE EVIDENCE FOR VALUATION

#### (A) PRIMARY SOURCES

We have reviewed previous official studies. These studies were selected on the basis of their availability, credibility, and relevance to our work. We provide a short description of the studies reviewed.

- **Reports by the UN Conciliation Commission for Palestine (1951 and 1964):** The United Nations Conciliation Commission for Palestine (UNCCP) took into account a long list of movable property, such as industrial equipment, commercial stocks, motor vehicles, agricultural implements, livestock and household effects. In the following pages, we provide a detailed analysis of the UNCCP approaches and data.

- **Kubursi, S. Hadawi - Palestinian Rights and Losses (1988):** Atif Kurbursi has conducted a comprehensive valuation on non land losses. References are made of data from different countries as a benchmark. Consumer expenditure studies are also used. We have used this study to design our valuation methodology.
- **A Survey of Palestine (1946):** The survey is probably one of the most reliable sources of information on pre war Palestine. It is also to be considered as an independent source of information drawn up between December 1945 and January 1946 by specialists and independent professionals. The survey was undertaken prior to the 1948 hostilities and thus not in contemplation of becoming a source for data to be used in context of loss assessment by one of the party. Values for the main movable asset categories (Livestock, private vehicles, commodity stocks, foreign assets) are taken from data in the Survey of Palestine. It should be noted again that A Survey of Palestine is unique because it compiles estimates of national wealth and separates the relative shares of the two broad groups of population. In the study, it is argued that some data are rough approximations but it also argues that allowance must be made for the “consequent under-statement in the aggregate”.<sup>30</sup> As a result, we have admitted the data as being correct and made adjustment to actualize them to 1948 value.
- **P. J. Loftus - National income of Palestine in 1944 (1946):** The report refers to many financial records regarding Palestine in 1944. For our analysis we refer to data on income.
- **Patterns in Household Demand and Saving (1977):** We have used this study to derive a benchmark for one of the five categories of movable assets (Clothing and household effects). To support the benchmarking element of our methodology, we have made extensive use of World Bank research on consumption trends in nations all over the world, by Messrs. Constantino Lluch, Alan A. Powell and Ross A. Williams. It was noted that the study “was conceived as a systematic examination of the consumption and saving behavior of household in countries at different levels of development”.<sup>31</sup> As a result, this study has to be considered as a reliable and independent source of information as well.

(B) OTHER SOURCES OF EVIDENCE

- **Report by the Arab League (1949):** The League of Arab States commissioned an expert group to value Palestinian losses. Although its main efforts were directed at valuing land and immovable properties, an estimation of movable assets was made. However, the origin of data is unknown.
- **Yusif Sayigh - The Israeli Economy (1966):** The author has included movable assets (Furniture, personal goods, factory equipment, inventories, farm animals, commercial vehicles). Unfortunately, no direct access to this publication in its original form has been possible. Therefore we present data and comments reported from other sources.

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<sup>30</sup> A Survey of Palestine, page 563.

<sup>31</sup> Patterns in Household Demand and Savings, 1972, Oxford University Press, Page V

## 8.5. METHODOLOGY OVERVIEW AND RATIONALE

### (A) GOALS

First of all, we have proposed to conduct a systematic review of different types of movable property. The idea has been to collect as much information as possible on the various loss types to be included in this section.

After review of the historical record, we have been able to identify information for the following assets:

1. Livestock and agricultural implements
2. Private vehicles
3. Commodity stocks
4. Foreign assets
5. Clothing and household effects

Second, once we had collected data for each cluster of movable asset, we had to design a valuation methodology for each of them, keeping in mind that the same method could not be necessarily applied on the five asset types.

### (B) ASSUMPTIONS

In our valuation, we have assumed that refugees have left behind all their properties. We understand the past valuers have proposed ratios for property left behind, i.e. Atif Kubursi arguing that refugees had taken with them half of their property. However there is no basis to justify such ratio and we have decided to assumed, unless proved otherwise, that all movable property has been lost.

However, for foreign stocks, we have been assumed that one third of the financial assets have been lost, as explained by Atif Kubursi<sup>32</sup>. As detailed in Section 3, we have also made adjustment to calculate the share of refugee losses when reasoning from national aggregates. We have used the following ratios (See also Section 3 for an explanation of the origin of our ratios):

- The share of refugees as a percentage of the total Palestinian Arab population: 60%.
- The share of refugees as a percentage of total national population: 41%.

### (C) VALUATION PRECEDENTS

Before conducting our valuation, different approaches and studies have been considered in order to collect as much information as possible on the matter. Substantially all the main previous research on this subject has been reviewed and considered, including:

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<sup>32</sup> Sami Hadawi and Atif Kubursi, *Palestinian Rights And Losses in 1948, 1988*, p. 156

- UNCCP - Documents relating to: Global Estimate (1951) and Technical Programme (1964)
- League of Arab States (1949)
- Professor Sayigh's Study (Chapter 3) (1966)
- Sami Hadawi and Atif Kubursi, Palestinian rights and losses in 1948, (1988)

We provide here an overview of some approaches used in the past. In this overview, strengths and weaknesses of each approach are discussed. The following table can be used to summarize our findings:

TABLE 54: SUMMARY OF PAST VALUATION OF MOVABLE PROPERTY

Source	Approach	Total amount
UN Conciliation Commission on Palestine (Berncastle 1951 Global Estimate) – Please note that Jarvis in 1964 arrived at about the same total estimate for movable assets	Average of results of three different evaluations based on: <ul style="list-style-type: none"> <li>• A percentage of the value of abandoned Arab immovable property, applying percentages used at the time of the Turkish-Greek exchange of populations in the case of predominantly rural and predominantly urban populations.</li> <li>• A percentage of the national income of the Arab population of Palestine under the Mandate.</li> <li>• Aggregate value of the various categories of movable properties owned by Arabs under the Mandate.</li> </ul>	<b>£P 20,000,000</b> (1948)  Average of the following values, for the three reported approaches: <ul style="list-style-type: none"> <li>• £P 21,570,000</li> <li>• £P 18,600,000</li> <li>• £P 16,600,000</li> </ul>
Arab League – 1949	Analysis provided for different assets. No further information available.	<b>£P 207,000,000</b> (1948)
Professor Sayigh – 1966	Generally valued. No further information available.	<b>£P 112,500,000</b> (1956)
Dr Kubursi – 1988	Evaluation based on specific analysis for different clusters of movable assets (livestock, commodity stocks, foreign stocks, clothing and household goods). Usually based on the Survey of Palestine. An evaluation of some assets on an income basis is provided.	<b>£P 110,994,950</b> <sup>33</sup> (1948)

<sup>33</sup> No specific total amount is expressed for “movable assets”. Value reported here is extrapolated from various calculations, and sometimes from aggregate numbers. Therefore the value presented here is an approximation and must be seen as a general indication only.

Source: Global Estimate, UNCCP, 1951, part. 23/53; Sami Hadawi and Atif Kubursi, Palestinian Rights And Losses in 1948, 1988, p. 123/128, p. 132/136, p. 151/158

A brief description for each approach is detailed in the following pages.

**UN Conciliation Commission on Palestine (« UNCCP ») – Berncastle 1951 and Jarvis 1964**

The final amount of £P 20 million (1948) used by the commission was obtained as an average of the three results reported below. The £P20 000 000 is a rounded figure, the exact figure being £P19 756 667. UNCCP was unable to precisely value refugees' movable property (since UNCCP had no means of knowing what property the refugees took with them and what they left behind) but was able to discuss and apply a few methods to approximate the value of the movable property which belonged to the refugees before their exodus, including the following items: industrial equipment, commercial stocks, motor vehicles, agricultural equipment and livestock, and household effects.

For more information, see page 128 of Records of Dispossession by Michael R. Fischbach for explanation on the methods. See AC.25/W.81/Rev.2, 2 October 1961 UNCCP, Historical Survey of Efforts of the UNCCP To Secure the Implementation of Paragraph 11 of the General Assembly Resolution 194 (III), paragraph 94 (Paragraphs 21-35 of Annex 5 provide the full calculations).

The preliminary calculations were based on the following three methods, with a view to comparing the results obtained:

1. A percentage of the value of abandoned Arab immovable property, applying percentages used at the time of the Turkish-Greek exchange of populations in the case of predominantly rural and predominantly urban populations (In the case of Turks leaving Greece the rate was 4.7 per cent, and in the case of Greeks leaving Turkey 60.9 per cent). The calculation in the case of Arab refugee rural and urban populations gave a total of £P21,570,000;
2. A percentage of the national income of the Arab population of Palestine under the Mandate. It was considered that this should be 40 per cent, and the proportionate figure in the case of movable property belonging to the refugee population was £P18,600,000 (40% of NI of £P62 million = £P24.8 million for the whole of Arab movable property. The adjustment for the refugee population is done by the formula: 900 000 refugees out of a total of 1 200 000 Arabs); and
3. Calculation based on the aggregate of values of different descriptions of property. The aggregate value of the various categories of movable property owned by Arabs under the Mandate is determined. The proportion of this total representing the refugee property gave a figure of £P19,100,000 (the total of Arab movable property is estimated at £P22.1 M which is adjusted back to the number of refugees to get £P16.6 M and to which is added £P2.5 M to account for household effects not included in the £P22.1 M). The source of the statistics is not mentioned.

The estimate was revisited by Jarvis during his time at the Technical Program. He reached a total estimate of £P19,125,000 by combination of various methods, similar to the ones used by

Berncastle for the Global Estimate of 1951. Household goods were not included in the estimation. See pages 272-276 of Records of Dispossession by Michael R. Fischbach for explanation on the valuation methods.

The description of the three methods used by Jarvis can be summarized as follows:

1. Value of movable is based on value of rural land using 4.7% factor and adding 60.9% of urban land (£P42 069 000);
2. A percentage of Arab share of the national income of Palestine (£P17.4 million). Here, Jarvis provides different population estimates from Berncastle's ones ( 700 000 out of 1,124,000 non-Jews became refugees; and
3. Value from the mandatory data on ownership of industrial equipment for a total of £P19 125 000 for refugees. A total figure of £P30 600 000 for the Arab sector of pre-1948 Palestine as follows: industrial equipment (£4 million); commercial stock (£5.5 million); vehicles (£2 million); agricultural livestock (£13.1 million); and household furniture (£6 million). Again deducting a percentage to represent the refugees only left him with a figure of £P19 125 000 in refugee movable

#### **The Arab League**

Not convinced by the UNCCP evaluation, the League of Arab States commissioned a group of experts to re-evaluate the losses. Though their main efforts were directed at the evaluation of land and immovable properties, an estimation of movable assets was also made. A total amount of £P207 million (in 1948 value) was reported for movable assets (considering furniture, fixtures, money, jewellery, foodstuffs, agricultural products, commodities, means of land and sea transportation, and stocks). Please note that we could not find any explanation on the origin of the values. As a result, this study has been entirely discarded.

#### **Professor Yusif Sayigh**

In his book on the Israeli economy, Professor Sayigh provided a detailed enumeration and a tentative methodology for conducting a valuation of Arab losses in Palestine. The author arrived at a grand total of £P107,500,000. The study included the following items: Furniture, personal goods (rural: £12,500,000 and urban: £50,000,000), Factory equipment at £15,000,000, Inventories at £5,000,000, Farm animals at £10,000,000, and Commercial vehicles at £15,000,000.

For the personal goods, £25 per refugee was assigned to rural areas and £400 for urban areas. Factory equipment value is obtained as follows: a capital-output ratio of 4 is used to derive the capital stock from net income of these concerns. Farm animals or livestock is derived from the figures in Survey of Palestine and using a 300% increase to adjust to post-war prices. The number of 1000 vehicles is considered (trucks, buses, lorries)

The approach is comprehensive but the method is not supported and therefore cannot be used at negotiation. We do not recommend using this study for many reasons:

- The methodology is not justified

- The audit trail of data is not provided. Therefore, the scope of damage and the figures mentioned in the assessment have no explained basis
- No distinction is made between the various type of holdings in terms of quality and various types
- The capital-output ratio is arbitrarily defined
- The distinction between productive and non-productive capital is too difficult to make

#### **Atif Kubursi's estimate**

A "Comprehensive study on Palestinian rights and losses in 1948" was provided by S. Hadawi and Atif Kubursi in 1988. In the first part of the study, a general and in-depth analysis of the 1948 conflict was provided by Mr. Hadawi, while Atif Kubursi contributed a detailed analysis of different kinds of financial losses by Palestinian refugees. Regarding movable assets, Atif Kubursi mentioned the critical scarcity of data sources. Nonetheless, after an analysis of previous approaches, he provided a new evaluation mainly based on information taken from the Survey of Palestine, although sometimes characterized by a new personal approach.

The author proposed a valuation of two main categories of movable assets:

1. Agricultural and industrial movable assets, including: agricultural capital (livestock and agricultural implements for £P6 100 000), commercial and private vehicles for £P952 000, commercial capital and stocks for £P45 900 000, financial stock for £P12,500,000.
2. Movable assets - Personal effects and household furniture and fixtures (£P54,000,000): This is an assessment of personal effects (mostly clothes) and household effects based on pre war consumer expenditure studies. The valuation basis is an economic equation using the concept of marginal propensity to consume.

TABLE 55: VALUATION OF MOVABLE ASSETS BY ATIF KUBURSI

<b>Assets considered</b>	<b>Methodology</b>	<b>Value(s) 1948 £P</b>
Livestock (£P5,100,000) and agricultural implements (£P1 million)	Based on Survey of Palestine data.  Value is actualized at post-war price considering the rate of inflation.  Total value is divided by the amount of Arab refugees.	<b>£P 6,100,000</b>  • Total Arab amount: £P 3,100,000 (1943) - livestock • Inflation value to 1948: 300% • Amount of refugees: 55% of total Arab people
Commercial and private vehicles	Based on Survey of Palestine data.	<b>£P 952,000</b>  • Total Arab amount: £P 1,300,000 (1945) • Amount of refugees: 55% of total Arab people • Adjustment to 1948: 4% real growth, 6% inflation
Commodity stocks	Based on Survey of Palestine data.	<b>£P 45,900,000</b> • Total refugee's amount: £P 31,400,000 (1944)

		<ul style="list-style-type: none"> <li>• Adjustment to 1948: 4% real growth, 6% inflation</li> </ul>
Financial stocks	<p>Based on Survey of Palestine data, with an arbitrary value of losses.</p> <p>Value is estimated after detracting the amount actually paid back by the Arab Bank in 1945.</p> <p>Total value is divided for the amount of Arab refugees.</p>	<p><b>£P12,500,000</b></p> <ul style="list-style-type: none"> <li>• Foreign asset: £P 39,3 million</li> <li>• Losses before 1948: 33% of total</li> <li>• Paid back: £P 3,8 million</li> <li>• Amount of refugees: 55% of total Arab people</li> </ul>
Personal wealth	<p>Based on an evaluation of propensity to consume and expenditure on movable assets.</p> <p>Final amount is modified through rates of depreciation and real interest.</p>	<p><b>£P 54,000,000</b></p> <ul style="list-style-type: none"> <li>• Incomes value: £P 123 million</li> <li>• Propensity to consume: 80% of income</li> <li>• Expenditure on movables: 20% of consume</li> <li>• Real interest rate: 4%</li> <li>• Depreciation rate: 10%</li> <li>• Amount of refugees: 55% of total Arab people</li> <li>• Amount of losses: 50% of total amount</li> </ul>

Source: Sami Hadawi and Atif Kubursi, Palestinian Rights and Losses in 1948, 1988, p. 151-158

Industrial and agricultural movable assets are valued in Section 9. As a result, we do not spend time explaining the methodology rationale here. The methodology of Atif Kubursi for the second category concerning personal wealth can be detailed as follows:

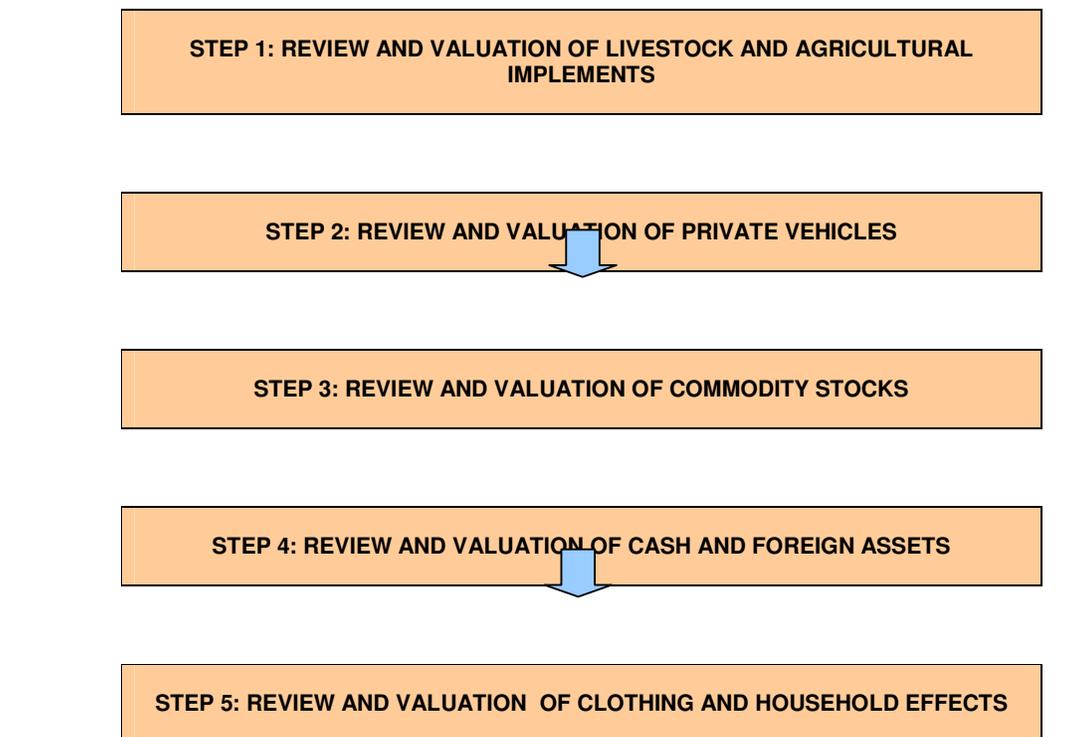
- The valuer uses a standard marginal propensity to consume of 80% of permanent income and 20% share of total consumption allocated to personal and household effects (or  $.8 \times .2$ ). The 20% is arbitrary fixed by reference to a benchmark of consumer expenditure patterns (Greece, Korea, Israel).
- Based on a constant real income of £P123 (corresponding to the 1944 national income), a real rate of interest of 4% and a depreciation of 10%, the estimate for stocks of clothing and household effects is £P196.8 million.
- The share of the refugees being 55%, we get £P108.2 million, the valuer arbitrarily deciding that refugees have taken with them 50% of this amount, or a total value of £P54 million.

Atif Kubursi did not fully always describe the way in which he calculated his final values. Key parameters, such as the percentage of consumption of income, were often assumed without being fully described and justified. In some parameters, for example vehicles and capital stocks, commercial data is also considered. There is no final explicit amount for private movable assets, which must be extrapolated based on further analysis and calculations.

## 8.6. ANALYSIS

As previously mentioned, we have developed a new methodology for different clusters of movable assets. Losses related to livestock, private vehicles, commodity and foreign stocks owned by Palestinian are computed on the basis of historical data. The raw data are obtained from A Survey of Palestine. For the valuation of household losses, due to lack of evidence, we have decided to have recourse to an approach based on economic principles. First, we have sought to derive the value of such assets as a percentage of the national income of the Arab population of Palestine under the British mandate. Then, we have valued the losses as a function of incomes and consumption parameters. Our approach is fully discussed in the following pages.

FIGURE 7: LOGICAL REVIEW FRAMEWORK FOR LOSS OF MOVABLE ASSETS



### Step 1: Review and valuation of livestock and agricultural implements

Livestock are animals intentionally reared in an agricultural setting to produce food and/or fibres (cows, poultry, beef cattle, goats, sheep), or alternatively for their labor (horses, camels). Please note that we have assumed that the total number of livestock has been lost.

A Survey of Palestine reported losses of Arab livestock at £P3,100,000 in pre-war prices (1943). The data presented in the Survey shows estimated number and aggregate value of livestock in



Jewish and Arab ownership based on the census of livestock of 1942 and 1943. We have only retained the values for the Arab population as follows:

TABLE 56: MOVABLE PROPERTY – LIVESTOCK

Livestock in number	Arab (1943)
Cattle	214,570
Buffalo	4,972
Sheep over 1 year	224,942
Goats over 1 year	314,602
Camels over 1 year	29,736
Horses	16,869
Mules	7,328
Donkeys	105,414
Pigs	12,145
Fowl (excl. chickens)	1,202,122
Other poultry	16,394
<b>Total estimated value (1943)</b>	<b>£P 3,100,000</b>

Source: V. W. Shaw, A Survey of Palestine, Vol. 2, 1991, p. 568

Please note that A Survey of Palestine does not disclose the origin of the aggregate value of £P3.1 million. The figures for each category of livestock in the above table are related to the number of item and not their value.

We need to adjust this figure to reflect the share of refugees as a percentage of the total Arab population. Thus, we apply the ratio of 60% to arrive at the total loss of livestock for refugees, as follows (See Section 3 concerning the ration adjustment principles):

$$\begin{array}{r}
 \text{£P 3,100,000} \\
 \text{(multiply)} \\
 \text{60\%} \\
 \hline
 \text{£P 1,860,000} \\
 \text{(in 1943 prices)}
 \end{array}$$

Such a value must be actualized to 1948 prices by using the actualization factor of 2.062 (for conversion between 1943 and 1948). Therefore the final amount for livestock is:

$$\text{£P 1,860,000} \times 2.062 = \text{£P 3,835,320}$$

We now have to consider the implements that would have been privately-owned. Again, A Survey of Palestine has been used for that purpose. In Table 7 of page 569 of A Survey of Palestine, we note that the total value of Arab agricultural implements is £P1,000,000. This figure is quoted in 1945 value. The estimate is based on the results of enquiry conducted in five Arab villages and the census of Arab-owned livestock in 1942. By applying the 60% ratio (See Section 3 concerning the ration adjustment principles), we obtain the share of the refugee population, which is £P600,000. The actualization between 1943 and 1948 is done as follows:

$$\text{£P } 600,000 \times 2.062 = \text{£P } 1,237,200$$

The total value for livestock and implements is therefore:

$$\text{£P } 3,835,320 + \text{£P } 1,237,200 = 5,072,520$$

### Step 2: Review and valuation of private vehicles

In this section, we are only concerned with privately-owned vehicles, commercial vehicles being assessed with business losses in another section of this report. Again A Survey of Palestine has been used to collect data on motor vehicles. The estimates provided below are based on the records of the Controller of Road Transport. The value used are based on the estimated cost of new vehicles imported, with allowance for the age of vehicles as recorded in the census of vehicles taken in 1945.

A Survey of Palestine discloses the following information as regards to motor vehicles in 1945:

TABLE 57: ESTIMATED NUMBER OF MOTOR VEHICLES

Vehicles	Total (Number)	Arab and other (£P 1945)
Omnibuses	1 342	377 000
Commercial vehicles:		
Light	921	57,000
Heavy	3 111	386,000
Taxis	1 248	183,000
<b>Private</b>	3 051	<b>281,000</b>
<b>Total</b>	9 673	1 284 000

Source: V. W. Shaw, A Survey of Palestine, Vol. 2, 1946, p. 568

We are only concerned in this section with private vehicles. The Survey of Palestine in fact estimated the value of private vehicles for Arab and other in 1945 of £P 281,000. We now need to adjust this figure of £P 281,000 to take into account the share of refugees from the total Palestinian Arab population. Thus we apply the ratio of 60% to arrive at the total loss of private vehicles of refugees, again as follows.

$$\begin{array}{r}
 \text{£P } 281,000 \\
 \text{(multiply)} \\
 \text{60\%} \\
 \hline
 \text{£P } 168,600 \\
 \text{(in 1945 prices)}
 \end{array}$$

Such a value must be actualized to 1948 by using the actualization factor of 1.397 (for conversion between 1945 and 1948, please refer to Section 3 for the discussion on our fundamental adjustment principles). Therefore the final amount is:

$$\text{£P } 168,600 \times 1.397 = \text{£P } 235,534$$

### Step 3: Review and valuation of commodity stock

We refer to commodity stock as anything movable that is bought and sold, with the exception of animals. The Survey of Palestine reports the value of £P1,951,000 for commodity stocks owned by Arabs at 31<sup>st</sup> December 1944<sup>34</sup>.

The figure is understated as it only shows the share of Arabs in stocks insured by the War Risks Insurance Department at 31 December 1944. We now adjust this figure for the share of refugees as a percentage of the total Arab population by applying the ratio of 60%. We have assumed that all such items were left behind by refugees at the time of their forced displacement. We obtain the value of commodity stock losses for the Palestinian Arab refugees by the following calculation:

$$\begin{array}{r}
 \text{£P 1,951,000} \\
 \text{(multiply)} \\
 \text{60\%} \\
 \hline
 \text{£P 1,170,600} \\
 \text{(in 1944 prices)}
 \end{array}$$

Such a value must be actualized to 1948 by using the actualization factor of 1.508 (for conversion between 1944 and 1948, please refer to Section 3 for the discussion on our fundamental adjustment principles). Therefore the final amount is:

$$\text{£P 1,169,711} \times 1.508 = \text{£P 1,765,265}$$

### Step 4: Review and valuation of cash and foreign assets

Owing to the nature of the asset, cash claims have a greater potential for overstatement than most other types of claims. Except in the most exceptional circumstances, higher evidentiary standards need to be set for such losses relative to other claim types.

Please note that financial assets include the following items:

- Cash bank accounts
- Safe deposit boxes
- Financial assets held in financial institutions
- Bearer bonds
- Shareholding in foreign income-generating businesses and other items held abroad

At this stage of the review we have only included cash and foreign assets because we could not identify reliable and updated information regarding other items. Furthermore, we will need access to information related to blocked bank accounts and other securities as well as detailed

<sup>34</sup> A Survey of Palestine, Vol. 2, 1946, p. 567

information on the various releases done by relevant banks during the course of the past sixty years.

In respect to cash in hands, we have considered whether it is conceivable that cash could have been lost or abandoned in the circumstance described in the historical record; whether it was reasonable for the Palestinian refugees to have left significant amount of cash in their homes; and why it was necessary or customary for a Palestinian to keep such an amount in cash. Given the nature of the asset, we have assumed that cash in hands would be taken away with refugees. As a result, we are not proposing any compensation for portable cash. However, we have assumed that deposits and financial assets located in financial institutions at the time of the war would be lost in part. In this section, we propose to review foreign assets held by Arabs because specific information could be found on this topic.

A foreign asset is anything owned which can produce future economic benefits, but referring to any country other than Palestine. After World War I, important Jewish immigration bringing along large amounts of capital created the conditions for a modern banking system to emerge in Palestine. According to Atif Kubursi, by 1935, you had a total of 113 banks of which 18 were classified as commercial banks, 6 being foreign banks. Deposits totaled £P20.2million on 20 June 1939, foreign banks accounting for about 64% of the deposits.

The Survey of Palestine reports £P 39,300,000 of foreign assets held by the Arab population in 1945. This was composed of foreign currency and banking reserves (as reported in the table below). Currency reserves are those foreign currency stocks that were owned by Palestinian Arabs and deposited within national banks. Banking reserves are holdings of foreign assets or stocks held in accounts within the bank.

Foreign Assets	Arab (£P 1945)
Net currency reserves	29,200,000
Net banking reserves	9,300,000
Others	<i>Not specified<sup>35</sup></i>
<b>Total</b>	<b>£P 38,500,000</b>

Source: A Survey of Palestine, Vol. 2, 1946, p. 569

In October 1945 the Arab Bank liquidated and paid back its depositors an amount of £P 3,800,000<sup>36</sup>. The remaining balance at the end of 1945 is therefore £P34,700,000 (representing £P38,500,000 - £P 3,800,000). Please note that we have no other source of information for the period 1946-1948. We have assumed that an allowance of 50% should be made to account for those people able to make withdrawals before or during the war.

To obtain the value of losses for the Palestinian Arab refugees we proceed with the following calculation:

**£P 34,700,000**  
**(multiply)**

<sup>35</sup> Those data are not reported in the source used.

<sup>36</sup> Sami Hadawi and Atif Kubursi, *Palestinian Rights And Losses in 1948*, 1988, p. 156

$$\begin{array}{r}
 50\% \text{ (withdrawal} \\
 \text{allowance)} \\
 \hline
 \text{£P 17,350,000} \\
 \\
 \text{(multiply)} \\
 \hline
 60\% \text{ (refugee share)} \\
 \hline
 \text{10,410,000} \\
 \text{(in 1945 prices)}
 \end{array}$$

Such a value must be actualized to 1948 and therefore the final amount is:

$$\text{£P}10,410,000 \times 1.397 = \text{£P}14,542,770$$

#### Step 5: Review and valuation of clothing and household goods

In this last section, we are now valuing the loss related to clothing and household goods. As previously stated, there is no available data on clothing and household assets owned by the Arab population before the war. Therefore, we evaluate this category with an indirect approach, using income consumption parameters. We seek to derive a benchmark from other similar countries that can be used to derived proxy values. Consumption is defined as the using up of a resource (typically money, currency) for the adoption, use and disposal of goods and services.

We have worked under the following methodology and assumptions:

1. Obtain a reasonable benchmark for the size of movable assets as a percentage of total income (through consumption parameters). We have obtained the following consumption pattern over income: average for Palestine = 87%
2. Assume a constant real income of £P 123,000,000 in 1944 value and assume the share of refugees being £P 73 million (as per the 60% ratio defined in Section 3)
3. Assume that the propensity to consume is £P64 million as calculated below (at the rate of 87% on income)
4. Assume that all moveable assets have been lost

#### *Step 1: Consumption expenditure from income*

We have already presented such material in Section 7. We have derived a benchmark based on consumption parameters for Palestinian Arab people in 1948 from the following table. The study done by Llach, Powell and Williams in 1977 focused on different countries in a defined period, between 1953 and 1969<sup>37</sup>. In the study, a benchmarking procedure was designed in order to convert local values into 1970 US dollars.

<sup>37</sup> Patterns in Household Demand and Savings, 1977, Oxford University Press

TABLE 58: CONSUMPTION PATTERNS IN VARIOUS COUNTRIES

	Referred year <sup>38</sup>	Per capita GNP <sup>39</sup> (USD)	Per capita disposable income (USD)	Per capita private consumption (USD)	Consumption on income	Consumption on GNP
	A	B	C	D	D/C	D/B
Korea	1962	142	115	120	104%	85%
Thailand	1964	148	115	102	89%	69%
Philippines	1961	161	-	125	-	-
Taiwan	1962	216	146	162	111%	75%
Jamaica	1964	541	436	432	99%	80%
Panama	1964	564	-	447	-	-
South Africa	1962	596	461	401	87%	67%
Greece	1963	676	564	501	89%	74%
Ireland	1962	1,014	820	779	95%	77%
Puerto Rico	1961	1,023	-	828	-	-
Italy	1962	1,207	916	782	85%	65%
Israel	1964	1,468	1,228	1,058	86%	72%
UK	1962	1,900	1,331	1,236	93%	65%
Australia	1961	2,192	1,662	1,489	90%	68%
West Germany	1962	2,203	1,474	1,277	87%	58%
Sweden	1962	2,962	1,956	1,694	87%	57%
US	1962	3,669	2,481	2,249	91%	91%

Source: Patterns in Household Demand and Savings, 1977, Oxford University Press, chap. 3

To define a proper parameter of consumption in Palestine before 1948 we refer to those nations with a per capita GNP lower than USD 700, which is an average of 96.50%. But we must consider that:

- there is some evidence that the marginal propensity to consume is lower in countries with higher rates of growth in income and markedly smaller for farmers than householders (both rural and urban)<sup>40</sup>
- subsistence expenditure for large families is higher than for small ones, but on a per capita basis it tends to be less (scale economies exist in household consumption)<sup>41</sup>.

Therefore, we have assumed that it is correct to adjust this factor of 96% to take into account the reality of the Palestinian economy at the time of the war. Since we have no scientific data to make the adjustment, we propose to assume a reduction of around 10 percentage points from the 96% world average, obtaining 87% as the final consumption parameter in Palestine before 1948. This figure is close to the one quoted in the above table for Israel in the post war context.

### *Step 2: Consumption expenditure*

<sup>38</sup> Reference year (generally for a period among 1964 and 1967, though different from case to case)

<sup>39</sup> All values in the table are expressed in 1970 US\$

<sup>40</sup> Luch, Powell and Williams, p. 43, 204, 256

<sup>41</sup> Luch, Powell and Williams, p. 243

We now evaluate consumption expenditure on the basis of national income and percentage of Arab refugees. We assume constant real income of £P 123,000,000<sup>42</sup> in 1944, the share of refugees being 60% as established in section 3 of this report. Therefore the amount of income for Arab refugees is as follows:

$$\text{£P } 123,036,000 \times 60\% = \text{£P}73,800,000 \text{ (1944)}$$

On this basis, the consumption expenditure for the Palestinian Arab population in 1945 can be obtained as follows:

$$\text{£P } 73,800,000 \times 87\% = \text{£P}64,206,000 \text{ (1944)}$$

*Step 3: Consumption expenditure relevant to our analysis*

The following table provides benchmark data related to the composition of consumption goods and services.

TABLE 59: GOODS AND SERVICES PER ECONOMY TYPES

	Overall average <sup>43</sup>	Clusters' average <sup>44</sup>	100-500\$	500-1000\$	1,000-1,500\$	Over 1,500\$
Food	32%	32%	49%	28%	27%	24%
Clothing	5%	5%	6%	4%	5%	6%
Housing	9%	9%	10%	11%	9%	6%
Durables	2%	2%	1%	1%	2%	2%
Personal care	2%	2%	3%	2%	1%	1%
Transport	2%	2%	2%	5%	2%	1%
Recreation	2%	2%	2%	1%	3%	3%
Others	2%	3%	3%	4%	2%	1%
Total	56%	57%	76%	56%	52%	43%

Source: Patterns in Household Demand and Savings, 1977, Oxford University Press, chap. 3

The Lluch, Powell and Williams study provides details of the composition of people's expenditure. The main expenditure is on food. The percentage of food out of overall expenditure is always the highest, although decreases as income levels rise. We assume food should not be considered part of the losses to be valued, due to its portability and the probable day-by-day consumption and low quantity in storage. We also avoid considering personal care and recreation expenses, which are not considered as moveable assets in our study.

We aggregate clothing, housing, durables, transport (as it includes communication) and other goods and obtain 22% of total expenditures at a per capita GNP of USD 100-500 and 25% for a per capita GNP of USD 500-1000. Accordingly, we select an in-between figure of 24% as the value for relevant consumption expenditure in movable assets by the Arab population in 1948.

<sup>42</sup> P. J. Loftus, National Income of Palestine in 1944, 1946, p. 15

<sup>43</sup> Obtained by adding the values for all the 17 nations and dividing the obtained number for 17

<sup>44</sup> Obtained by adding the average values of the 4 clusters of nations and dividing the obtained number for 4

Therefore the total amount of clothing and household movable assets can be obtained as follows:

$$£64,206,000 \times 24\% = £15,409,440(1944)$$

Such a value must be actualized to 1948, therefore the final amount is:

$$£15,402,239 \times 1.508 = £23,237,435$$

We have now to evaluate a possible percentage of movable assets left behind by refugees in 1948. On such matters, Mr. Hadawi, the co-author of *Palestinian Rights and Losses in 1948*, states *"from personal experience and knowledge gained on the spot, the number of persons who were able to remove their belongings was negligible because the exodus was sudden, members of families in their haste to escape lost sight of each other, transport was extremely rare because of chaos and lack of facilities, and those who had the opportunity to move their belongings were turned back by Arab vigilante groups"*<sup>45</sup>.

On this basis, we make the assumption that the refugees left behind 100% of their clothing and household personal movable assets.

The final estimate is then: **£P23,237,435**

#### (F) PROPOSED ESTIMATES FOR LOSS OF MOVABLE ASSETS

It is obtained from the sum of losses in livestock, private vehicles, commodity stock, foreign stocks and household items owned by Palestinians as follows in 1948 £P:

Assets considered	Value
Livestock and agricultural implements	£P5,072,520
Private vehicles	£P 235,534
Commodity stocks	£P 1,765,265
Foreign stocks and cash	£P 14,542,770
Clothing and household	£P23,237,435
<b>Total</b>	<b>£P 44,853,524</b>

### 8.7. LIMITATIONS AND DIFFICULTIES

Although many previous valuation studies concluded that it is difficult to reach a precise aggregate value for Arab refugee movable property, we believe that we have now obtained sufficient information from various sources to establish the amount of loss.

<sup>45</sup> *Palestinian Rights and Losses in 1948*, p. 325, #9 cap. 14

## 8.8. AUDIT TRAIL

Evidence type	Reference (Publication/Author)	Page	Remarks
Livestock	V. W. Shaw, <i>A Survey of Palestine</i> , Vol. 2, 1946	P. 568	-
	Sami Hadawi and Atif Kubursi, <i>Palestinian Rights And Losses in 1948</i> , 1988	p. 151/152	-
Private vehicles	V. W. Shaw, <i>A Survey of Palestine</i> , Vol. 2, 1991	p. 568	Vehicles are reported as private one used for commercial use.
	Sami Hadawi and Atif Kubursi, <i>Palestinian Rights And Losses in 1948</i> , 1988	p. 152/153	Is evaluating both commercial and personal/private vehicles.
Commodity stock	V. W. Shaw, <i>A Survey of Palestine</i> , Vol. 2, 1991	p. 567	-
	Sami Hadawi and Atif Kubursi, <i>Palestinian Rights And Losses in 1948</i> , 1988	p. 153/154	-
Foreign stock	V. W. Shaw, <i>A Survey of Palestine</i> , Vol. 2, 1991	p. 565, 569	Total data provided. Some more detailed data are missing.
	Sami Hadawi and Atif Kubursi, <i>Palestinian Rights And Losses in 1948</i> , 1988	p. 154/156	Especially assumption of non-refundable losses between 1945 and 1948 were assumed by A. Kubursi and can be requested.
Clothing and household items	P. J. Loftus, <i>National Income of Palestine in 1944</i> , 1946	p. 15	Incomes of Palestine in 1944
	Lluch, Powell and Ross, <i>Patterns in Household Demand and Savings</i> , World Bank, 1977	Chap 2 (methodology) Chap 3 (data)	Source for international benchmark on consumption parameters on incomes, regarding movable assets.
	Sami Hadawi and Atif Kubursi, <i>Palestinian Rights And Losses in 1948</i> , 1988	p. 156/158	Some values are proposed, that have been analyzed with data from previous source.

## 8.9. ADDRESSING THE GAPS AND RECOMMENDATIONS

The final value has emerged following a step-by-step calculation of different classes of movable assets. Some values are the product of parameters that have been compared with international benchmark data from different nations. At this stage we believe that we have collected enough information in respect of this loss type.

## SECTION 9: VALUATION OF BUSINESS LOSSES

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### 9.1. SUMMARY OF FINDINGS

This section seeks to value the loss of income-producing property suffered by Palestinian-Arabs. We shall detail the different types of income-producing property and then propose an aggregate of what is believed to have been lost as a result of the 1948 war and the subsequent creation of what is now known as Israel. We estimate that the value of income-producing property at **£P85,516,266** (in 1948 value).

### 9.2. OBJECTIVES AND SCOPE OF WORK

The purpose of this section is to measure the importance of the Palestinian-Arab economy and estimate the effects of the war upon it. Our methodology depends on an accurate estimate of the Palestinian economy at the outbreak of the 1947-48 war and finding what proportion of the economy belonged to people who became refugees.

We have divided this task into six major categories of business in the pre-1948 economy:

1. Manufacturing and handicraft businesses
2. Building and construction businesses
3. Hotels, restaurants and cafés
4. Domestic and other services
5. Commerce and finance
6. Commercial vehicles (versus private vehicles covered in Section 8)

### 9.3. BACKGROUND

At the end of 1947, Palestine was governed by Great Britain under the terms of a United Nations defined mandate. Overall, the economy was healthy (See our economic analysis of

Section 2), especially when compared to other countries still suffering from the effects of World War II. Palestine was made up of two major communities: the indigenous Palestinian-Arabs and the Jews. It is important to point out that the immigration of Jews was a significant factor in Palestine's demographics and, as a result, two distinct economies appeared; together forming a vibrant economy.

Indeed, prior to 1948, Palestine had a growing economy. The Second World War encouraged the development of many industries in Palestine because of the drastic reduction of imports. As fighting never took place on Palestinian soil, the local economy was able to recover rapidly after the end of the war in the European theatre of operations in May 1945: partly due to the fact that the massive cost of infrastructure reconstruction and debt servicing that weighed heavily on European countries was not a factor in Palestine. As Jewish immigration from Europe increased after 1945, it became clear that Palestine's economy was composed of two distinct components. Before focusing on the Palestinian-Arab part, we shall briefly present the overall economy.

When Great Britain was asked to govern Palestine in 1920 under the terms of the mandate, it found a subsistence economy primarily based on agricultural production. By 1948, the economy had completely changed. Agriculture was now complemented by a strong industrial sector, the population was growing at a solid rate and the country's economy had become a player on the world stage, almost showing an even balance of foreign trade of manufactured products.

These changes can be credited to:

- the rapid growth of population (of which a major part came from immigration);
- the influx of capital from abroad;
- experienced labour and entrepreneurship (brought by Jewish immigrants); and
- changes that were made because of World War II.

Furthermore, the economy lost its dependence upon Great Britain, who no longer could afford to be the dominant trading partner of Palestine it had been prior to World War II.

As mentioned earlier, the industrial sector as a whole was predominantly Jewish. Arabs were mostly involved in agriculture, milling grain, tobacco manufacturing and parts of the textile and metal industries. Overall, it is estimated that almost 80 percent of people employed by industry worked in Jewish-owned undertakings.

Enumeration of national wealth has been carried out in pre war Palestine. We can mention two studies providing aggregates: Loftus' National Income of Palestine and A Survey of Palestine. Of course, special care must be exercised to distinguish the shares of Arabs and Jews. Clearly, rural and urban lands are the main capital. But the industrial organization also existed in pre war Palestine. For instance, the Palestine government Census of Industry in 1943 covered a total of 3,470 establishments, of which 1,558 were Arab and non-Jewish interests.

Of the five concessions which existed then, three were Jewish-owned: Palestine Electric Corporation, Palestine Potash Ltd., and Palestine Salt Co. The other two were Arab-owned: Jerusalem Electric and Public Service Corporation and Shukri Deeb and Son, Ltd. The census did not cover the entire industrial sector but excluded, notably, small enterprises in printing and publishing, garages, laundries and small workshops which were predominantly Arab-owned.

Please note that Section 2 provides more information on the economic outlook of Palestine at the time of the war.

#### 9.4. AVAILABLE EVIDENCE FOR VALUATION

##### (A) PRIMARY SOURCES

- A Survey of Palestine, 1945
- National Income of Palestine, 1944, by P.J Loftus

##### (B) OTHER SOURCES OF EVIDENCE

Various documents have been made available as to the general economic conditions in pre war Palestine.

#### 9.5. METHODOLOGY OVERVIEW AND RATIONALE

##### (A) GOALS

We have sought to value the following items on an annual output basis:

- Industries (excluding the agricultural industry)
- Capital stocks
- Commercial stocks
- Hotels and restaurants
- Commerce and finance
- Commercial vehicles

It should be explained that the agricultural sector is purposely omitted from the valuation of industry for the following reason: the value of agricultural crops is accounted for when valuing rural land in Section 4. Therefore, we have chosen to exclude the agricultural sector here so as to avoid double counting.

Considering the differences in nature between the listed categories of business losses, it is not an easy task to settle for one methodology suitable for all. The task at hand is to estimate both the value of the infrastructure of industries, hotels and restaurants, whilst also valuing the loss of income derived from these same businesses. In other words, ideally, we would need to value the assets, the output and also the profit for each of these. Furthermore, commercial stocks and

commercial vehicles are to be valued as assets. Our first objective is to factor all categories into one aggregate number.

(B) ASSUMPTIONS

We had to rely on aggregate figures for valuing business losses. We have assumed that the data disclosed in A Survey of Palestine and Loftus's National Income of Palestine are accurately reported.

(C) VALUATION PRECEDENTS

**Yusif Sayigh, 1966**

Mr. Sayih provided a significant amount of economic analysis. It provides a detailed enumeration and a tentative methodology for conducting a global assessment and valuation of Arab losses in Palestine. The approach include personal property (houses, vehicle, land, livestock...), Arab share of public property (government buildings, roads, ports, railways, schools, hospitals, forests and grazing land...), income opportunities (loss of employment for professional and skilled workers...), transitional and separation costs (costs of the exodus, separation of the economies from Gaza and West Bank, economic burden of Arab states and closure of the Palestinian market...).

However, such study is difficult to use for the following reasons:

- The methodology is not justified
- The audit trail of data is not provided. Therefore, the scope of damage and the figures mentioned in the assessment have no explained basis
- No distinction is made between the various type of holdings in terms of quality and various types
- The capital-output ratio is arbitrarily defined
- The distinction between productive and non-productive capital is too difficult to make

Yusif Sayigh valued the following losses: Furniture, personal goods (rural: £12,500,000 and urban: £50,000,000), Factory equipment at £15,000,000, Inventories at £5,000,000, Farm animals at £10,000,000, Commercial vehicles at £15,000,000. Factory equipment value is obtained as follows: a capital-output ratio of 4 is used to derive the capital stock from net income of these concerns. Farm animals or livestock is derived from the figures in Survey of Palestine and using a 300% increase to adjust to post-war prices. The number of 1000 vehicles is considered (trucks, buses, lorries).

Other industrial categories included: Factory buildings (1,500 at £7,500,000), Smiths, tailors, mechanics (5,000 at £5,000,000), Offices (5,000 at £15,000,000), Stores (rural: 2,000 at £800,000 and urban: 3,000 at £7,500,000), Hotels (1,000 at £15,000,000), Restaurants, clubs, coffee houses (2,000 at £4,000,000), Plantation buildings (2,000 at £5,000,000).

**Kubursi, 1988**

Atif Kubursi provided a detailed valuation of capital goods and assets, including:

- Industrial capital

- Agricultural capital - Dwelling or rural houses
- Agricultural capital - Livestock and agricultural implement
- Commercial and private vehicles
- Commercial capital and stocks
- Hotels and restaurants
- Financial assets
- Private and personal wealth - personal (mostly clothes) and household effects
- Infrastructure
- Natural resources, Water, and forestry

By far, it is one of the most comprehensive studies of Palestinian refugees' property losses. This is why we suggested using some methodological aspects of this study to develop a new methodology to arrive at a global figure for capital goods and assets (non land property).

Please note that Atif Kubursi's valuation has been done as follows:

TABLE 60: ATIF KUBURSI VALUATION OF NON LAND LOSSES

Loss category	Source of information	Valuation basis	Value in £P
<b>Industrial capital</b>	Census of Industry 1943, Survey of Palestine for net output of industry	Taking the share of Arab industrial capital in 1943 and capitalizing to get the 1948 value by using 10% nominal growth rate, adjusted to account for the 55% share of refugees	£11 400 000
<b>Agricultural capital - Dwelling or rural houses</b>	Survey of Palestine and Sayigh Study	The Survey of Palestine is argued to undervalue the loss and Kubursi proposed to take Professor Sayigh's figure of 90 000 lost houses to value Arab rural housing (at average value of £675, which is wrongly capitalized as a 4% perpetuity from the annual rent on rural houses 1948 or \$30 and to which is deducted 10% for maintenance, or £3)	£60 750 000
<b>Agricultural capital - Livestock and agricultural implement</b>	Survey of Palestine	The Survey of Palestine figures for livestock and agricultural implements are accepted at face value of respectively £5 100 000 and £1 000 000, after deduction of the 55% ratio of refugees to the total Arab population of Palestine	£6 100 000
<b>Commercial and private vehicles</b>	Survey of Palestine	9 673 vehicles were on the road in 1945 with a total value of £P3.2 million, of which the Arab share is £P1.3 million. Expressed in 1948 prices and taking into account the refugee share, we get a value of £P952 000	£952 000
<b>Commercial capital and stocks</b>	Survey of Palestine and National Income of Palestine	A calculation is made to value commercial fixed and circulating capital owned by Arab refugees. The calculation basis is not clear and seems to be based on averaging capital value of trading establishments	£45 900 000
<b>Hotels and restaurants</b>	Sayigh Study	The figures is taken from Professor Sayigh's estimate based on 1 000 hotels and 2 000 restaurants. The value given by Sayigh is £P19 million to which is apply the 55% share of refugees to obtain the total value of £P10.5 million	£10 500 000

<b>Financial assets</b>	Survey of Palestine	This is an estimation of Arab deposits, currency reserves, and banking reserves. The valuation is based on data from the Survey of Palestine and making various adjustments and deductions for amounts paid back and the 55% share of the refugees	£12 500 000
<b>Private and personal wealth - personal (mostly clothes) and household effects</b>	References are made of data from different countries as a benchmark. Consumer expenditure studies are also used	The valuer uses a standard marginal propensity to consume of 80% of permanent income and 20% share of total consumption allocated to personal and household effects (or .8 x .2). The 20% is arbitrary fixed by reference to a benchmark of consumer expenditure patterns (Greece, Korea, Israel). Based on a constant real income of £P123 (corresponding to the 1944 national income), a real rate of interest of 4% and a depreciation of 10%, the estimate for stocks of clothing and household effects is £P196.8 million. The share of the refugees being 55%, we get £P108.2 million, the valuer arbitrarily deciding that refugees have taken with them 50% of this amount, or a total value of £P54 million	£54 000 000
<b>Infrastructure</b>	The valuation basis is not stated	This is a valuation for different types of facilities: roads, railways, water, and air transport. A total estimate is obtained from a capital-output ratio to get a figure of £30 million (after various deduction) to which is applied the same discount factors of 50% (deduct Jewish population) and 55% ( Share of refugees)	£12 100 000
<b>Natural resources, Water, and forestry</b>		Natural resources are mentioned but not valued	
<b>TOTAL</b>			<b>£214 202 000</b>

Atif Kubursi also used the National Income in his studies. As outlined in Loftus's study, he advocated that the net output in manufacturing, mining, and private utilities was estimated in 1943 to exceed £P21.7 million. The difference of about £P6.9 million between the national accounts estimate and that of the census may be accounted for entirely by the exclusion of small businesses from the 1943 census. Using an average capital-output ratio for Arab establishments of 1.197, we obtain a value of £P8.3 million as additional Arab industrial capital in this sector. This brings the total accumulation of capital invested in the industrial sector to about £P28.7 million.

The Arab share works out as follows: £P2.1 million of capital invested in the census-included establishments; £P8.3 million of capital invested in the census-excluded establishments; £P2.5 million in the Arab-owned concessions. This gives a total of £P12.9 million in 1943 prices. As a result, the 1948 value of Arab capital in industry, assuming a 10 per cent nominal growth rate per year between 1943 and 1948, is estimated to be approximately £P20.7 million.<sup>46</sup> The share of the refugees is again put at 55 per cent of the total (using Atif Kubursi's estimate), resulting in an approximate value of £P11.4 million.<sup>46</sup>

<sup>46</sup> See his paper on <http://socserv.mcmaster.ca/kubursi/losses1.htm>.

## 9.6. ANALYSIS

### (A) INTRODUCTION TO THE AVAILABLE EVIDENCE AND DOCUMENTS USED

Our assessment is based on documents available thus far. These documents have been divided into two categories.

- The first category includes statistical analysis of pre-war Palestine
- The second category includes past estimates.

It goes without saying that our methodology is greatly dependent on “Category One” documents. However, “Category Two” documents have helped us outline different categories of income producing property. While our methodology is almost solely based on the first type of documents, we have used the second type to compare (or verify) our findings and also to consider several valuation angles.

#### Category One:

- National Income of Palestine, 1944, by P.J Loftus
- A Survey of Palestine, 1946, by V.W Shaw

#### Category Two:

- Palestinian Rights and Losses in 1948, by Dr Atif Kubursi
- Estimates made by Professor Yusif Sayigh in 1956.

### (B) BUSINESS VALUATION METHODOLOGIES

There are several recognized methods of placing a single financial value on ‘a business.’ Prior to describing our analysis of recorded businesses lost by Palestinian Arabs, we shall briefly introduce the reader to some key principles of business valuation.

As a preliminary matter, we define the term “a business” as being an organized entity that conducts a trade, service or profession with commercial, profit-making objectives. Such a definition is designed to include incorporated and also unincorporated entities. If our assessment was to deal only with corporate bodies, this would unreasonably exclude a large number of Palestinian Arabs who were actively undertaking a commercial activity, trade or profession either as a sole trader, a partnership or as a co-operative.

There are four main recognized methods of business valuation:

- A) Stock market valuation
- B) Assets owned

- C) Discounted cash flow projections
- D) Multiple of annual profits

Given the data availability and the inability of other methods to respond to the circumstances prevailing in the present context, we are of the opinion that such methods are not appropriate for application in this assessment. Accordingly, in the following section, we have designed a new methodology based on the available historical record.

(C) PREFERRED APPROACH AND DETAILED ANALYSIS

To value the loss of Palestinian-Arab income-producing property, we have two distinct approaches:

TABLE 61: AVAILABLE METHODS FOR VALUING BUSINESS LOSSES

<b>Method A</b>	Subtracting post-war aggregate value of possessions pertinent to this section from pre-war aggregate value; <i>or alternatively</i>
<b>Method B</b>	Applying to the pre-war aggregate value the share of refugee population. From our analysis in Section 3, we have determined the percentage of refugees to Arab population being 60% or the percentage of refugees to total population in Palestine (Jews + Arabs + others) being 41%.

Method A is obviously more reliable, as it measures actual losses. However, it is unfortunately very dependent upon the availability of data. Data is hard to obtain, as post-war bookkeeping by Palestinian Arabs may perhaps have been limited and thus unreliable. Method B assumes that ownership of business is evenly distributed among the Palestinian Arab population and that the refugee population was randomly and evenly “composed”, regardless of social situation, wealth, or any other factor. This is a significant assumption, since it is contrary to the general view that the poorest members (and therefore the most vulnerable) of a community are often the most rapidly affected by war and its resulting displacement. Method B will simply produce an aggregate value. Unless and until more data is made available, we intend to apply Method B.

As explained above, our first step is to sum up the ownership of income-producing property by Palestinian Arabs at the outbreak of the 1948 war.

(D) PRE-WAR ESTIMATION

We shall first consider businesses owned by Palestinian Arabs and value them as if they were to be sold, according to the business valuation practice. This involves considering the annual output of each business sector as at 1944 (being the closest data set available for a 1948 evaluation); applying an appropriate multiplier to each individual business sector annual profit and then adjusting the results to reflect prices in 1948.

The following table summarizes our analysis:

TABLE 62: PRE WAR ESTIMATES OF ANNUAL OUTPUT

Business sector	Annual output in 1944 (£P)	Estimated multiplier	1944 valuation (£P)	At 1948 prices (£P)
	(A)	(B)	[(A) * (B)]	
Manufacturing and handicraft	3,300,000	4	13,200,000	19,905,600 in 1948 prices for the Arab share or <b>11,943,360</b> for the refugees at the 60% rate – See Section 3)
Building and construction	5,635,000	4	22,540,000	33,990,320 in 1948 prices (or refugee share estimated at <b>13,936,031</b> – here applies the 41% to get a proportion out of total population)
Hotels, restaurants and cafés	3,069,000	4	12,276,000	18,512,208 in 1948 prices (or refugee share estimated at <b>7,590,005</b> – here applies the 41% to get a proportion out of total population)
Domestic and other services	2,754,000	4	11,016,000	16,612,128 in 1948 prices (or Arab share estimated at <b>6,810,972</b> – here applies the 41% to get a proportion out of total population)
Commerce and finance	18,062,000	4	72,248,000	108,949,984 in 1948 prices (or Arab share estimated at <b>44,669,493</b> – here applies the 41% to get a proportion out of total population)
Commercial Vehicles	626,000	N.A.	N.A.	944,008 in 1948 prices for the Arab share or <b>566,405</b> for the refugees at the 60% rate – See Section 3)
Total				<b>85,516,266</b>

**About annual output:**

It should be noted that we make the assumption that the measure “Output”, as used by Loftus in the national income statistics (and described by him as being “*obtained by deducting from gross output the cost of materials and fuel used*”), can be taken to be analogous to an accounting measure of profit.

Standard business valuation methodologies often take as the relevant measure of the “annual output” of a business its annual profit before tax and interest. This particular profit measure is

used due to its comparability across many sectors and among many businesses with different financial structures and tax regimes.

**About the multiplier:**

It is important to point out that the multipliers applied here are “all-inclusive”. We have chosen such multipliers so as to include a valuation for assets and buildings. Please note that we have been using conservative multipliers in the range of 4 to convert annual output in business values. Considering the type of business to be valued, we believe that such multipliers are in line with standard business practice.

The result of “annual profit x multiplier” provides a valuation of the business in total. It places a capital value on the business, its trading operations and its assets used in the course of that trade. In practice, different business sectors can have different valuation norms (such as: professional practices (such as accountants or lawyers) typically use gross recurring annual fee income; property (real estate) businesses typically use property valuations). In order to arrive at a global valuation in this section we have adopted a consistent approach of “annual profit x multiplier”.

**About commercial and capital stocks:**

It was mentioned in section 9.1 that an estimate would be made for commercial and capital stocks. In fact, we believe that a valuation of each business sector on the assumed basis of a ‘sale value on the open market as a going concern’ includes the valuation of such stocks. It follows therefore that commercial and capital stocks for each business are included within the multiplier evaluation above.

**About 1948 prices:**

We have applied an uplift factor of 1.508 (or a 50.8% increase) from 1944 prices. The derivation of this ratio is explained in Section 3.

**Notes on the different categories (See Table 63):**

- **Manufacturing and Handicrafts:** It must be noted that these figures do not include laundries, printing presses and garages. We have been unable to find an accurate number of Arab-owned businesses, however, it is explained that the average Arab business was very small. Roughly 9,000 people were employed in the Palestinian Arab-owned businesses accounted for in the above overall valuation table. We have retained a multiplier of 4 to reach an overall valuation of £P19,905,600 for this category (Arab share). The refugee share out of the Arab share is **£P11,943,360**.
  
- **Building and construction:** Data have been obtained from Loftus’ National Income. The total output for 1944 as follows:
  - o Building trade: £P1.280.000
  - o Public work department output: £P655.000
  - o Armed forces construction: £P1.900.000
  - o Military authority contracts: £P1.800.000

- Or a total of £P5.635.000 as annual output X 4 = £P22.540.000 in 1944 prices or £P33,990,320 in 1948 prices (the share of refugees out of total population being 41% as estimated in Section 3, or **£P 13,936,031**)
- **Hotels, Restaurants, Cafés:** According to Loftus' National Income, it is estimated that 3,093 such establishments were licensed in 1944. According to the ratio of "Arab Net output/Total Net Output", we should expect there to have been roughly 1,000 Arab-owned hotels, restaurants, and cafés. It should also be kept in mind that hotels and restaurants typically carry out a large proportion of cash transactions and did not always keep a reliable system of accounting. The number provided in the table above includes a 20% increase to declared numbers, to make up for the estimated difference (i.e. under-declaration) between actual output and declared output. The total included in our valuation is obtained as follows: A total of £P3,069,000 as annual output X 4 = £P12,276,000 in 1944 prices or £P18,512,208 in 1948 prices (the share of refugees out of total population being 41% as estimated in Section 3, or **£P7,590,005**)
- **Domestic and other services:** This category includes hairdressers, domestic employees and professionals that were accounted for as "miscellaneous". According to Loftus' National Income, the total included in our valuation is obtained as follows: A total of £P2,754,000 as annual output X 4 = £P11,016,000 in 1944 prices or £P16,612,128 in 1948 prices (the share of refugees out of total population being 41% as estimated in Section 3, or **£P6,810,972**)
- **Commerce and finance:** We have followed the approach adopted by Loftus in National Income, excluding net profits from foreign companies and salaries. Therefore, we have assumed that the output for commerce was £P17,298,000 in 1944 prices and the output for finance was £P270,000 (individual concerns) + £P494,000 (local companies) in 1944 prices, or a total of £P18,062,000 in 1944 prices (p. 12 of National income). The total included in our valuation is obtained as follows: A total of £P18,062,000 as annual output X 4 = £P72,248,000 in 1944 prices or £P108,949,984 in 1948 prices (the share of refugees out of total population being 41% as estimated in Section 3, or **£P44,669,493**)
- **Commercial vehicles:** According to available data, there were 5,280 commercial vehicles registered in Palestine in 1945. The value of the Palestinian-Arab share is estimated to be worth £P626,000, in 1944 prices, or £P944,000 in 1948. The refugee share out of the Arab share is **£P566,405**.

Therefore, overall, our pre-war estimation amounts to: **£P85,516,266**. This amount is the sum of the value of businesses in 1948 and of commercial vehicles (at 1948 prices), only related to the share of the refugee population.

## 9.7. LIMITATIONS AND DIFFICULTIES

It should be noted that this valuation of business losses is done for a variety of small enterprises. We could not identify business data for large corporations in which Palestinians could have had an ownership. However, we have to admit that small shops, workshops and other small

businesses made up an important part of Arab-owned businesses. These included: bakeries, hairdressing salons, laundries and garages among many other examples. Book-keeping and the reliability of annual accounts in such businesses was commonly of low priority to the business owners, which limits any assessment of their worth.

In terms of method, our preferred methodology would have been to use standard business practice; that is, to begin with a review of annual profits generated by a business (or, in the present context, a group of businesses) and applying to these profits a multiplier in order to determine a capital value of the businesses as if they were to be sold. Our assumed basis of sale is an open market, with willing buyer and willing seller.

However, such information does not exist. Indeed, our main limitation is the lack of available contemporaneous data. The accuracy of our methodology depends greatly on an ability to produce a reliable aggregate value of all business-related wealth prior to the war of 1948. We are limited by the lack of accurate information relating to the income-producing assets of Palestinian refugees as a result of their dispossession and not necessarily the war itself. Furthermore, we need data pertinent to the post-war years. This issue also concerns hotels and restaurants, as revenue earned from customers (particularly in cash) may well not always have been declared and neither did owners necessarily place high priority on reliable accounting. In terms of quantum, these issues are minor however, because even a relatively wide margin of error only affects the total aggregate value of businesses in a minor way.

## 9.8. AUDIT TRAIL

The audit trail for this section is summarized in the table below.

Valuation Item	Reference (Publication/Author)	Page	Remarks
Manufacturing and Handicraft	National Income of Palestine, 1944, by P.J Loftus	p.25	
Building and Construction	National Income of Palestine, 1944, by P.J Loftus	p. 9	Only private constructions and military contracts to private contractors have been used
Hotels, Restaurants, Cafés	National Income of Palestine, 1944, by P.J Loftus	p. 13	
Other	National Income of Palestine, 1944, by P.J Loftus	p. 14	
Commerce and finance	National Income of Palestine, 1944, by P.J Loftus	p. 12	
Commercial Vehicles	A Survey of Palestine, 1945, by V.W Shaw	Vol.2 – p. 568	Only the values of Light and Heavy commercial vehicles and taxis have been used

**9.9. ADDRESSING THE GAPS AND OUR RECOMMENDATIONS**

Although we are confident that our pre-war assessment of Palestinian-Arab owned businesses and other income producing properties is reliable, we have had to rely solely on the percentage of refugees out of the total Arab population to estimate losses incurred as a result of displacement caused by 1948 war. We believe that a much more accurate number could be produced if similar data to what is available pre-1948 could be made available for post-1948.

## SECTION 10: VALUATION OF STATE-OWNED PROPERTY

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### 10.1. SUMMARY OF FINDINGS

This section deals with the valuation of the Palestinian Arab refugees' share of state-owned property that was governed by the British Mandate Authority until 1948. Our preliminary valuation of state-owned property, which encompasses Palestinian transport and communication infrastructure (GROUP 1) and public buildings (GROUP 2), amounts to **£P37,062,985** (in 1948 value).

### 10.2. OBJECTIVES AND SCOPE OF WORK

Our valuation only covers communication and transport systems, which are the most valuable assets and include categories such as roads, railways, ports, telecommunications and the postal system. Other property such as schools, hospitals and police stations are also included in the final valuation on an estimated replacement cost basis. Accordingly, the scope of property covered here is limited by data availability and only includes assets such as:

- The road system
- The railway system and rolling stock
- Seaports
- Postal services including broadcasting and telecommunications
- Water installations
- Hospitals
- Police stations
- Schools
- Administrative buildings
- Etc.

The objective of analyzing all this data is to find a value of the contribution of infrastructure and communications to the aggregate Palestinian national output, and point out some of the categories of state-owned property for which we have only partial or no data. The analysis will provide a historical value of state-owned property related to communications and transport based on output, and points out some of the assets that are not accounted for in this valuation. A proxy for replacement cost has also been derived in this section.

### 10.3. BACKGROUND

State-owned property was a significant part of the Palestinian economy. Infrastructure such as roads, railways and seaports, as well as communications such as postal services and telecommunications played a crucial role in mobilizing the factors of production facilitating economic growth in the Palestinian territories. Furthermore, the public sector encompassed a noteworthy stock of buildings enabling public services such as policing, education, health care and government at the national and local levels.

The UN mandate and also the influence of World War II were two factors that led to the sustained presence of large numbers of British and Allied military forces stationed in Palestine over almost 20 years immediately prior to May 1948. This had the effect of creating a need (and providing the resources) to create a relatively sophisticated level of public infrastructure and public utilities (public goods in the economic sense). For example, as a result of the above, Palestine's public sector encompassed a significant stock of buildings enabling public services such as policing, education, healthcare and national or local governmental administration.

### 10.4. AVAILABLE EVIDENCE FOR VALUATION

This section is based solely on the documents and studies available to us at this stage. Hence no estimates or comparisons, which would suffer the risk of being much less accurate, have been attempted. Data relevant to this section has been identified in the following sources:

#### (A) PRIMARY SOURCES

- *Village Statistics 1945*
- V. W. Shaw, *A Survey of Palestine*, Vol. 1 and 2, 1946 (reprinted 1991)
- P. J. Loftus, *National Income of Palestine in 1944*, 1946
- S. Abu Sitta, *Atlas of Palestine 1948*, 2004

#### (B) OTHER SOURCES OF EVIDENCE

- Sami Hadawi and Atif Kubursi, *Palestinian Rights And Losses in 1948*, 1988
- The Sayigh Study made available by the NSU

While Atif Kubursi's analysis has helped inspire our method, Sayigh's study is only used to identify categories of public property and thus broadens our scope beyond the data available in the primary sources. It is our understanding that Sayigh based his analysis on estimated values. His estimates of output are applied directly without further methodological consideration.

Therefore, we can refer to Sayigh's paper only to identify what data might not be included in the primary sources.

Atif Kubursi is unclear about the source of his data but the methodology, on the other hand, seems persuasive. In fact we will apply a somewhat similar methodology to a part of our data, namely communications and transport. For further details about the categories and types of data found in the sources, we refer the reader to table 9 in the Annex below.

## 10.5. METHODOLOGY OVERVIEW AND RATIONALE

### (A) GOALS

The method applied to reach this total value is based on the economic concept of output and the main data source is a study of contributions of different sectors to the national net output. This data has been cross-referenced with other sources wherever possible. The method is reliable, but may not be as thorough as alternative and more detailed approaches. With the data in our possession at this stage, the output-based method is the most reliable and arguably, the only one possible.

We have the number of assets for various categories of state-owned property, but no replacement cost values are available. These include categories such as locomotives, wagon rolling stock, railway tracks, railway stations, airports and landing strips (aerodromes), all-weather roads, seasonal usage roads, schools, police stations and so on. What is required to complete the analysis is, in most cases, a reliable rebuild cost or replacement values as at 1948. An overview of the requirements for new data is summarized in our recommendations (table 8).

Many methods have been considered for the valuation of this section, but only one has been found applicable at this stage. Thus the present evaluation is based on a method which analyses the contribution of transport and communication to the Palestinian national output in 1944. Output will be multiplied by an appropriate capital-output ratio to estimate the real value of these assets so crucial to the Palestinian economy. It should be noted that such a method contains flaws as it leaves out all assets not related to transport or communication.

The final step will be to convert the 1944 value to 1948 prices.

### (B) ASSUMPTIONS

It was difficult to share public infrastructure according to the different populations of Palestine. The population of Palestine in 1948 comprised Arabs, Jews, Muslims, Christians, Druze and others. Our assessment of the value of public utility capital assets lost by refugees considered the population as a whole, and then assessed the relative share of state-owned assets that should be allocated to the refugee population.

Our research has identified available valuation information concerning this diverse range of publicly-owned enterprises and utilities. It should be noted that wherever possible, British

mandate government statistics have been relied upon, due to their dual evidentiary benefits; having being created by an independent entity and having been recorded (and published) contemporaneously.

(C) VALUATION PRECEDENTS

We could not identify any valuation precedents for this loss type.

## 10.6. ANALYSIS

(A) GROUPING THE DATA

According to the data available at this stage, Palestinian state-property can be divided into three groups, which can help us to expose the strengths and weaknesses of each approach. These groups are illustrated in Table 63 as follows:

TABLE 63: GROUPING CATEGORIES OF STATE PROPERTY ACCORDING TO DATA AVAILABILITY

	Categories	Data Available	Valuation Method(s) Applicable
<b>Group 1:</b> Communications and Transport	<ul style="list-style-type: none"> <li>- Railway system</li> <li>- Road system</li> <li>- Ports</li> <li>- Postal Service incl. Broadcasting and Telecommunications</li> <li>- Water Installations</li> </ul>	<ul style="list-style-type: none"> <li>- Length of railways, and units of rolling stock units and output</li> <li>- Length of roads</li> <li>- Construction cost and output</li> <li>- Number of buildings, length of cables and output</li> <li>- Number of constructions/buildings</li> </ul>	Method A or Method B (See below)
<b>Group 2:</b> Public Adm. and Services Buildings	<ul style="list-style-type: none"> <li>- Government and Local Authorities</li> <li>- Schools</li> <li>- Hospitals</li> <li>- Police Stations</li> </ul>	Number of buildings	Method A (See below)
<b>Group 3:</b> Additional State-owned Property	Fire Departments, Natural Resources etc.	No data	No method

The first group is “Communication and Transport Facilities”, for which both the contributions to national output and the quantity of constructions are available. For ports in this category, the cost of construction of Haifa port is known, and from this number, the construction cost of Jaffa Port and additional facilities can be derived (see Table 64).

In the second group “Public Administration and Services Buildings” only part of the data, namely the number of buildings, is available and thus their value has to be estimated. We have been able to derive a proxy for the estimated replacement cost in 1948 value.

The third group, "Additional State-owned Property" encompasses all other categories of public property. However, no data is available for the scope, value or output and thus these have to be estimated. As there is no data in our possession for Group 3 and as it is considered less valuable assets and generally open-ended in scope, the present valuation shall not attempt to include it in the analysis below.

(A) OVERVIEW OF VARIOUS APPROACHES: STRENGTHS AND WEAKNESSES

To evaluate state-owned property, at least two methods can generally be applied:

- A. The number of assets in each category multiplied by their estimated replacement value (or cost) per asset
- B. Output of a sector (or all assets within it) multiplied by an appropriate capital-output ratio

Method A is simple; it multiplies the number of one particular sort of asset by the replacement value (or cost) per unit. This method is generally preferred due to its transparency and breakdown of values to very specific categories. This, however, assumes that replacement values are available for each of the categories accounted for. Such replacement cost can be derived from the data provided in Section 5 of this report.

Method B is somewhat similar to the one used in Dr. Kubursi in his 1988 study. He argued:

*"Palestine enjoyed an efficient transport system with all types of facilities: roads, railways, water and air transport. Development of these means was systematic and deliberate and served to avoid duplication and promote complementarities. By the early 1940s, Palestine had a number of communications facilities which helped to mobilize factors of production and trade, and relayed information that was instrumental in accelerating economic growth."<sup>47</sup>*

Here we shall multiply an overall measure of the output of transport and communication infrastructure with a capital-output ratio typical of this sector, and subtract the capital value of vehicles in order not to double count.

The weaknesses of method B are twofold:

1. firstly, it cannot account for public assets (such as those in Group 2 in table 1 below), as it does not give much meaning to the measurement of public goods such as schooling and healthcare in terms of only monetary values.
2. secondly, the method itself is unconventional and it is more an estimate.

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<sup>47</sup> Sami Hadawi and Atif Kubursi, *Palestinian Rights And Losses in 1948*, 1988, p. 158

Method A, on the contrary, can be applied to all three groups, and is more systematic and transparent.

(C) PREFERRED APPROACH AND DETAILED ANALYSIS

**GROUP 1: Communications and transport**

In the following section we seek to establish values for Group 1 by applying Method B and describe the data illustrating the scope of Group 2.

**Step 1: Seeking the Total Output of Communications and Transport**

In this section, the infrastructure of Palestine, i.e. railways, roads, postal system and telecommunications is assessed. The data available is from Lotus' 1944 study of National Income and is reproduced in table 2.

TABLE 64: TRANSPORT AND COMMUNICATIONS OUTPUT (REPRODUCED FROM LOFTUS)

£P		Costs	Output	Net Output
Railways (Palestine Only)				1.754.000
	<i>Taxis</i>		164.000	
	<i>Regular passenger transport</i>		3.246.000	
	<i>Regular goods transport</i>		4.000.000	
			<u>8.886.000</u>	
	<i>Motor spirit consumed</i>	1.700.000		
	<i>Lubricating oils</i>	178.000		
	<i>Replacements, spares</i>	1.100.000		
	<i>Garage services</i>	<u>565.000</u>	3.543.000	5.343.000
Shipping and Aviation				300.000
Post Office Services (include Broadcasting)				850.000
<b>Total Net Output Transport and Communications</b>				<b>8.247.000</b>

Source: P. J. Loftus, National Income of Palestine in 1944, 1946, p. 11

The Loftus study uses the Department of Statistics' transport series (the General Monthly Bulletin of Current Statistics) as its primary source. It includes output of railway and road transport of passengers and goods. The Survey of Palestine, however, includes detailed data on how many kilometers of road and railway served the people of Palestine.

These numbers cannot be utilized in the Method A framework, but are displayed in table 6 in the Annex (see also table 8 for other categories). It is unclear whether Water Transport is included in the figure for regular goods transport. The number of different kinds of water network assets is included in the Annex of this section.

Loftus inserts “a tentative figure of £P 300,000 (...) to cover the net output of locally owned shipping and the wages of those employed in commercial air services”<sup>48</sup>. The Survey of Palestine describes the revenue of Haifa port to £P 434,407 and Jaffa and other ports to £P33,499, which in total makes £P467,906.

So without including aviation, the annual revenue from the Survey of Palestine amounts to about £P170,000 more than Loftus’ net output estimate. This difference appears reasonable and thus, Loftus’ net output is confirmed in the survey numbers. All data used from the Survey of Palestine and Loftus are summarized in Table 65.

TABLE 65: SHIPPING AND AVIATION, £P

Description	Source	Kind of data	Year of data	Number	Revenue	Expenditure	Output	Construction
<b>Jaffa and other Ports</b>	SOP, p. 857-58	Rev and Exp	1944-45	1+	33.499	22.882		-
<b>Haifa port</b>	SOP, p. 856-58	Construction price / rev and working exp	1933 and 1944-45	1	434.407	266.575		1.250.000
<b>Shipping and Aviation</b>	Loftus, p. 11	Estimated output	1944	-	-	-	300.000	-

Sources: P. J. Loftus, *National Income of Palestine in 1944, 1946*, p.11; V. W. Shaw, *A Survey of Palestine*, Vol. 1 and 2, 1991, pp. 856-58.

In the calculation of output of transport and communication (reproduced in Table 65 above), Loftus also inserts an accumulated output of the Post Office Services of £P850,000. The Survey of Palestine records the annual revenue of the Department of Posts and Telegraphs at £P 1,400,000, which is £P550,000 more than Loftus’ measure of net output. For the kinds of activities performed in this department, running costs at 40% of revenue seem feasible.

The data available on communications is summarized in table 66.

TABLE 66: COMMUNICATIONS, £P

Description	Source	Kind of data	Year of data	Number	Revenue	Output
<b>Post Office services incl. broadcasting</b>	Loftus, p. 11	Output	1944	-	-	850.000

<sup>48</sup> P. J. Loftus, *National Income of Palestine in 1944, 1946*, p.10

<b>Post Offices</b>	SOP, p. 866	Number of	1945-46	127	1.400.000	-
<b>Telephone Lines</b>	SOP, 870	Length in km Local + Trunk Lines	1944	168.041 + 33.407	-	-
<b>Post Offices</b>	Atlas, table 2.22	Number of	-	15	-	-
<b>Post Offices and other Agencies</b>	SUP, p.871	Number of	1945	125	-	-

Sources: P. J. Loftus, *National Income of Palestine in 1944, 1946*, p.11; V. W. Shaw, *A Survey of Palestine, Vol. 1 and 2, 1991*, pp. 866, 871; S. Abu Sitta, *Atlas of Palestine 1948, 2004*, table 2.22.

Loftus thus calculates a total net output of transport and communications of £P8,247,000. According to Kubursi, the contribution of these facilities to national output reached £P8,300,000 in 1944<sup>49</sup>. However, this number is not referenced and it is thus the source is unknown. The proximity to Loftus' £P8,247,000 suggests that Dr. Kubursi used Loftus' study as his source or that he, like Loftus, also used the mandate government's Department of Statistics figures to calculate the output.

By cross-referencing Loftus' numbers with those in the Survey of Palestine, and those of the Kubursi study, we can reasonably assume that the Loftus numbers for net output are reliable. Hence, we extract from the above tables the net output for communications and transports in 1944 as follows:

- Railways and transportation: £P 5,343,000 + 1,754,000 (Table 65)
- Shipping and aviation: £P 300,000 (Table 65)
- Post Office Services: £P 1,400,000 (Table 65 and Table 67 but we retain the revenue level)
- Haifa port: £P 167,832 (by difference between revenue and expenditure in Table 66)
- Jaffa and other ports: £P 10,617 (by difference between revenue and expenditure in Table 66)

The total of the above categories is £P 8,975,449.

### Step 2: Applying a capital-output ratio

The method of evaluating against output or even revenue as the only data is problematic and involves estimating. However, common practice is to apply a capital-output ratio which is in essence a ratio that measures the amount of units of capital that are needed to produce a certain level of output.

This is commonly assessed by consideration of the rate at which the useful life of an asset is

<sup>49</sup> P. J. Loftus, *National Income of Palestine in 1944, 1946*, p. 10; Sami Hadawi and Atif Kubursi, *Palestinian Rights And Losses in 1948*, 1988, p. 158.

utilized (or its rate of return). The concepts of an asset's useful life, its rate of return and the capital asset ratio are linked. We have worked under the following assumptions:

- If the useful economic life of an example asset is 10 years and it produces a yearly output of 50, then the value of that asset can be regarded as 500; since it can be assumed the annual rate of return of 10% represents the value of financial return produced by that asset each year; divided by the asset's economic value.
- For example; an asset's purchase cost (at new) is 100 and its owner requires an annual rate of return of 5%. Thus, annual output of at least 5 will be required over a period of 20 years to return the capital cost of that asset. Another way of looking at this same example is that 20 assets are needed to produce annual output of 100. The annual rate of return is 5%; the capital-asset ratio is 20; and the useful economic life is also 20 years.

In the case of communications and infrastructure, we consider that the useful life of such assets, before needing to invest new capital, is on average five years. This is because a significant mix of capital equipment is needed, both in prevailing technology and also low-technology assets.

Road and railway infrastructure is typically expected to have a long life and can be contrasted with high technology telephone and radio communication equipment that would have existed in the 1940s which would have been expected to have a very much shorter asset life, due to technological advancements and capacity increases in communications traffic.

For this asset category, the useful life or capital-asset ratio of 4 is used to evaluate an annual output of £P 8,975,449 (to be consistent with Section 9). The result is as follows:

$$\text{Asset category total valuation of } \text{£P } 8,975,449 \times 4 = \text{£P}35,901,796$$

### Step 3: Finding the Arab refugee share

The total value of communications multiplied by the share of refugees in % of total population (41%) makes up the value at (£P35,901,796 x 0.41 =) £P14,719,736. Please see Section 3 for the origin of the ratio.

### Step 4: Converting into 1948 prices

The data on national output from Loftus' study that we base the valuation on is from 1944. Hence we need to adjust the value in 1944 to 1948 numbers by adding 50.8% or multiplying by a factor of 1.508. Please see Section 2 for the origin of the ratio.

Thus the Arab share of state-owned property related to GROUP 1 in 1948 value is

$$\text{£P}14,719,736 \times 1.508 = \text{£P}22,197,362$$

Please note that we have not valued the roads because only cost information has been provided (See tables in the Annex of Section 10).

### **GROUP 2: Public Adm. and Services Buildings**

We now propose a methodology for valuing other public buildings. The scope of such public buildings has been obtained from the Atlas of Palestine. We have retained the following categories for our valuation:

TABLE 67: SCOPE OF PUBLIC BUILDINGS UNDER VALUATION

Description	Kind of data	Number
Civic Structures	Number of buildings	28
Education	Number of buildings	7
Government	Number of buildings	130
Nature	Infrastructure and service buildings	146
Water Installations	Number of	239
Transport	Number of buildings (pub and private)	81
Construction / Buildings	Number of	185
Police Stations, Police Posts	Number of	99
Schools	Number of	350
Hospitals	Number of	33

Source: S. Abu Sitta, Atlas of Palestine 1948, 2004, Table 2.22, p.32

Please note that some categories have been omitted from Table 2.22 of Atlas of Palestine to avoid double-counting with other sections of this report.

We now need to estimate the number of square meter and value per square meter for each of the above categories. In terms of value per square meter, we have used the average compiled in Section 5 from Table 43. Such average is £P18.5 in 1945 value. If we actualize this figure using the methodology outlined in Section 3, we obtained the following figure by using the 1945-1948 growth rate factor of 39.7%:

$$£P18.5 \times 1.397 = £P25.84 \text{ per square meter (building)}$$

This figure represents an average of construction costs per square meter for all types of housing. The origin of the data are known for deriving such average and, as thus, we have decided to use this estimate derived from A Survey of Palestine.

The number of square meters has been grossly estimated as we could not find any reliable data. Our final estimation is as follows:

TABLE 68: VALUATION OF PUBLIC BUILDINGS (ESTIMATED REPLACEMENT COST IN 1948 VALUE)

Description	Kind of data	Number of buildings reported in The Atlas of Palestine	Number of square meter per building (Estimated)	Total estimated square meters	Value per square meter (£P25.84)
<b>Civic Structures</b>	Number of buildings	28	250	7 000	180 880
<b>Education</b>	Number of buildings	7	500	3 500	90 440
<b>Government</b>	Number of buildings	130	500	65 000	1 679 600
<b>Nature</b>	Infrastructure and service buildings	146	250	36 500	943 160
<b>Water Installations</b>	Number of	239	5	1 195	30 879
<b>Transport</b>	Number of buildings (pub and private)	81	100	8 100	209 304
<b>Construction / Buildings</b>	Number of	185	250	46 250	1 195 100
<b>Police Stations, Police Posts</b>	Number of	99	250	24 750	639 540
<b>Schools</b>	Number of	350	1 000	350 000	9 044 000
<b>Hospitals</b>	Number of	33	1 000	33 000	852 720
<b>Total</b>		<b>1 298</b>		<b>575 295</b>	<b>14 865 623</b>

The total value of GROUP 2 in 1948 value is therefore £P 14,865,623.

In adding up the value for GROUP 1 and GROUP 2, we find an aggregate total of:

GROUP 1: £P22,197,362

GROUP 2: £P14,865,623

**TOTAL £P37,062,985**

## 10.7. LIMITATIONS AND DIFFICULTIES

The scope of this section is constrained by the data available at this stage. The aim is thus not to find new ways of valuation, or new data to evaluate, but rather to examine the available material, reconsider the information to hand and find a value of the state-owned property where data is obtained, and identify where more data (if any) is needed to complete the analysis.

The data-availability problem is a significant constraint to the valuation of state-owned property. 'Assets' as diverse as ranging from fire engines to natural resources (such as water sources) are not included as no data is available. Furthermore, assets for which only some of the data exists (e.g. schools, police stations, government and municipal buildings) are not valued as no

replacement costs have been found. While these are all serious limitations, the most important and valuable sectors, namely transport and communication, are well accounted for.

In Palestine much of the infrastructure was originally built for military purposes and funded at the expense of the military forces. Major road and railway works were undertaken during wartime and subsequently utilized by civilian businesses and private citizens. One can make an argument that much of the Palestinian infrastructure was actually of military nature, the present report however, will not engage in such discussion at any length.

## 10.8. AUDIT TRAIL

The audit trail for this section is summarized in the table below.

Valuation Item	Reference (Publication/Author)	Page	Remarks
<u>Infrastructure:</u> Railways Ports The Road system Post office Services	Sami Hadawi and Atif Kubursi, <i>Palestinian Rights And Losses in 1948</i> , 1988	158	Contribution to GNP: The primary source is unclear
Infrastructure and Service Buildings within Coverage Area <u>Incl.:</u> Civic Structures Agriculture and Animals Education Government Nature Industry Water Installations Transport Constructions (infrastructure and Service) Police Stations, Police Posts Post Offices Schools Hospitals	S. Abu Sitta, <i>Atlas of Palestine 1948</i> , 2004, table 2.22.	Table 2.22	Number of Buildings
Wells, Springs and cisterns within Armistice Line (by District) <u>Incl.:</u> Wells Cisterns Spring Water Towers Water Tanks	S. Abu Sitta, <i>Atlas of Palestine 1948</i> , 2004, table 2.22.	Table 2.23	Number of Buildings

Government Revenue Customs Licenses & Taxes Fees of Govt. Etc Posts and Telegraphs Other	V. W. Shaw, <i>A Survey of Palestine</i> , Vol. 1 and 2, 1991	124	Revenue
Expenditure General services Security War Services	V. W. Shaw, <i>A Survey of Palestine</i> , Vol. 1 and 2, 1991	125	Expenditure
Revenue and Expenditure of Municipal Councils	V. W. Shaw, <i>A Survey of Palestine</i> , Vol. 1 and 2, 1991	137	Revenue and Expenditure
Communications:	V. W. Shaw, <i>A Survey of Palestine</i> , Vol. 1 and 2, 1991		Revenue and Expenditure
Railways			
Ports		856-58	Revenue and Working Expenditure
Road system			Expenditure
Post Office Services:	V. W. Shaw, <i>A Survey of Palestine</i> , Vol. 1 and 2, 1991	870	
Post			Number of Letters
Telegrams			Number of telegrams
Telephones			Length of Lines and Number of Calls
Broadcasting and Radio Services			Licenses
Savings Bank	V. W. Shaw, <i>A Survey of Palestine</i> , Vol. 1 and 2, 1991	870	Deposits
Output of Public Works Department	P. J. Loftus, <i>National Income of Palestine in 1944, 1946</i>	9-11	Output
Railways Revenue and Expenditure			
Post Office– incl. Shipping and air services			
Government and Local Authorities Police Public works All other permanent debts (ex Railway and Postal services) War Dept.	P. J. Loftus, <i>National Income of Palestine in 1944, 1946</i>	12-13	Output based on aggregate wages
Output of Transport and Communications	P. J. Loftus, <i>National Income of Palestine in 1944, 1946</i>	15	Output
Output of Government and Local Authorities	P. J. Loftus, <i>National Income of Palestine in 1944, 1946</i>	15	Output
Military Expenditure	P. J. Loftus, <i>National Income of Palestine in 1944, 1946</i>	19	Expenditure
National Consumption	P. J. Loftus, <i>National Income of Palestine in 1944, 1946</i>	22	Consumption

### 10.9. ADDRESSING THE GAPS AND RECOMMENDATIONS

The gaps in this section are clear. Firstly, the categories of data mentioned under Group 2 and 3 in table 1 are not included in the analysis. These are:

- Government and Local Authorities
- Schools

- Hospitals
- Police Stations

We believe that further research may provide the needed information. Furthermore, categories that do not appear in any of the studies (such as Fire Departments and Natural Resources) are also not accounted for.

## 10.10. TECHNICAL ANNEX

TABLE 1: COMMUNICATIONS

Description	Kind of data	Year of data	Number	Revenue	Output
Post Office services incl. broadcasting	Output	1944	-		850 000
Post offices	Number of	1945-46	127	1 400 000	
Telephone lines	Length in km local + trunk lines	1944	168.041 + 33.407	-	
Post Offices	Number of		15	-	
Post offices and other agencies	Number of	1945	125	-	

Sources: S. Abu Sitta, Atlas of Palestine 1948, 2004 / V. W. Shaw, A Survey of Palestine, Vol. 1, 1991, p.856-858 / P. J. Loftus, National Income of Palestine in 1944, 1946, p.11

TABLE 2: ROADS AND RAILWAYS

Description	Kind of data	Year of data	Number	Expenditure	Construction
All-weather roads (only public)	Length of roads in km	1945	2660	-	-
Seasonal usage (only public rds)	Length of roads in km	1945	1565	-	-
Roads before military operations	Estimated value	1917	-	-	295.119
Roads and Railway build by the British	Estimate of War Office 1922 + expenditure 1921-45 + security roads	1922 - 45/46	-	2.202.000 + 366.000	-
	War Dept number	1940-45/46	-	1.850.000	-
Maintenance of Roads	Exp. Public works dept	1921-45	-	3.016.000	-

Source: W. Shaw, A Survey of Palestine, Vol. 1, 1991, p. 859-862

Description	Kind of data	Year of data	Number	Revenue	Expenditure	Construction	Output
<b>Railways</b>	Length in km	1945-46	520 km	-	-	-	-
	Number of	1945-47	123	-	-	-	-
	Number of	1945-48	122	-	-	-	-
	Number of	1945-49	2.888	-	-	-	-
	Rev and Exp and Net Output	1944	-	-	-	-	1.754.000
	Length in km	-	643 km	-	-	-	-
	Length in km	-	624 km	-	-	-	-
	Length in km	-	-	-	-	-	-
	Length in km	-	234 km	-	-	-	-
	Number of	-	41	-	-	-	-
<b>Ports</b>	Rev and Exp	1944-45	1+	33.499	22.882	-	-
	Construction price / rev and working exp	1933 / 1944-45	1	434.407	266.575	1.250.000	-
	estimated output	1944	-	-	-	-	300.000
<b>Airports</b>	Number of	-	31	-	-	-	-

Sources: S. Abu Sitta, Atlas of Palestine 1948, 2004, Tables 2-20 and 2-21, p.32 / V. W. Shaw, A Survey of Palestine, Vol. 1, 1991, p.854-858 / P. J. Loftus, National Income of Palestine in 1944, 1946, p.11

Description	Kind of data	Year of data	Number	Revenue	Expenditure	Construction	Output
Road System	Length of roads in km	1945	2.660 km	-	-	-	-
	Length of roads in km	1945	1.565 km	-	-	-	-
	Estimated value	1917	-	-	-	295.119	-
	Estimate of War Office 1922 + expenditure 1921-45 + security roads	1922 - 45/46	-	-	2.202.000 + 366.000	-	-
	War Dept number	1940-45/46	-	-	1.850.000	-	-
	Length in km	1948	3.198 km	-	-	-	-
	Length in km	1948	22.456 km	-	-	-	-
	Exp. Public works dept	-	-	-	3.016.000	-	-

Sources: S. Abu Sitta, Atlas of Palestine 1948, 2004, Table 2-21, p.32 / V. W. Shaw, A Survey of Palestine, Vol. 1, 1991, p.859 - 862

TABLE 3: WATER NETWORKS

Description	Source	Kind of data	Year of data	Number
Water Installations	Atlas	Number of		239
Well	Atlas	Number of		1 655
Cisterns	Atlas	Number of		608
Spring	Atlas	Number of		980
Water Tower	Atlas	Number of		365
Water Tank	Atlas	Number of		41

Source: S. Abu Sitta, Atlas of Palestine 1948, 2004, table 2-23, p.33

TABLE 4: OTHER DATA

Description	Kind of data	Year of data	Number	Revenue	Expenditure	Construction	Output
Post offices incl. Shipping and air services	Output	1944	-	850.000	-	-	850.000
	Number of	1945-46	127	1.400.000	-	-	-
	length in km local + trunk lines	1944	168.041 33.407	-	-	-	-
	Number of	-	15	-	-	-	-
	Number of	1945	125	-	-	-	-
Civic Structures	Number of buildings	-	28	-	-	-	-
Education	Number of buildings	-	7	-	-	-	-
Government	Number of buildings	-	130	-	-	-	-
	Number of Councils	1945-46	86	-	-	-	-
Nature	"Infrastructure and service buildings"	-	146	-	-	-	-
Transport	Number of buildings (pub and private)	-	81	-	-	-	-
Constructions / Buildings	Number of	-	185	-	-	-	-

Sources: S. Abu Sitta, Atlas of Palestine 1948, 2004, Table 2-22, p.32 / V. W. Shaw, A Survey of Palestine, Vol. 1, 1991, p.129, 866, 870-871 858 / P. J. Loftus, National Income of Palestine in 1944, 1946.

Description	Kind of data	Year of data	Number	Revenue	Expenditure	Construction	Output
Police Stations, Police Posts	Number of	-	99	-	-	-	-
Schools	Number of	-	350	-	-	-	-
Hospitals	Number of	-	33	-	-	-	-
Water Installations	Number of	-	239	-	-	-	-
Water network	Number of	-	1.655	-	-	-	-
	Number of	-	608	-	-	-	-
	Number of	-	980	-	-	-	-
	Number of	-	365	-	-	-	-
	Number of	-	41	-	-	-	-

Source: S. Abu Sitta, Atlas of Palestine 1948, 2004, Table 2.22, p.32

## SECTION 11: SUMMARY OF AGGREGATE VALUES

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### 11.1 SUMMARY OF FINDINGS

We can summarize the findings of our assessment as follows:

Section	Loss category	Value in £P	Value in USD
Section 4	Valuation of rural land	398 221 800	1 605 590 475
Section 5	Valuation of urban land	126 830 885	511 369 445
Section 6	Valuation of holy places	1 602 280	6 460 233
Section 7	Valuation of the loss of employment and livelihood	122 739 012	494 871 422
Section 8	Valuation of personal property / movable assets	44 853 524	180 844 923
Section 9	Valuation of business losses	85 516 266	344 793 033
Section 10	Valuation of state owned property	37 062 985	149 434 249
<b>TOTAL</b>	<b>Total</b>	<b>816 826 752</b>	<b>3 293 363 781</b>

The value of Palestinian refugee losses in 1948 is £P816,826,752 or USD3,293,363,781.

## SECTION 12: PRESENT DAY VALUATION

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### 12.1. BACKGROUND TO PRESENT DAY VALUATION

In this section, we argue that it is necessary to fully compensate the Palestinian refugees for the time value of money. The standard of full compensation is stated as market value (see previous sections) plus substantive interest, or actualization to present-day value. Our proposed model is therefore designed to bring awards in line with modern economic realities and more accurately compensate the injured party.

We are confronted by the challenging question of how to deal with the passage of time and propose with confidence a method to adjust the award to present day value. We have examined the possible methods of adjusting the value of losses to reflect current day monetary values. The main question is: What reasonable rate of interest accruing from the date of loss needs to be applied to account for the passage of time? Thus the principal aims are: (1) to identify standards from the fields of economics and finance that may be employed to achieve this purpose; (2) to recommend the most appropriate financial basis on which the actualization may be carried out; and (3) to formulate arguments to support the recommended financial simulation. These issues are addressed in the following pages.

### 12.2. USE OF INTEREST IN CLAIM PROCESSES

Interest is a sum paid or payable as compensation for the temporary withholding of money.<sup>50</sup> Today, interest is a well accepted form of compensation for the loss of the use of money – so much so that it is often awarded without proof of actual loss. Courts and tribunals presume that the delayed payment of money deprives the injured party of the ability to invest the sum owed.

There are two main reasons for awarding interest. The first and main reason is to fully compensate the claimant by restoring it to the position it would have enjoyed if the wrongful act had not occurred. The payment of interest recognizes that there exists the loss of return opportunity between the time of injury and the time of award. Indeed, if there were no delay between the date of the injury and date of compensation, a claimant would be made whole by the award of compensation, and an award interest would not be needed. However, delay in the payment of compensation can be quite lengthy and lead to increased financial loss to the claimant, ultimately leading to a position of uncertainty especially in times of monetary depreciation. In awarding interest, the injured party is justly compensated not only for the

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<sup>50</sup> This section is based on a presentation entitled “Interest as Damages” by the author and John Gotanda at a conference: Remedies in Commercial, Investment, and Energy Arbitrations, April 17-18, 2008, Houston, Texas, USA.

original injury or loss but also for the passage of time between the date of injury or loss and the date of full reinstatement. The second reason for awarding interest is to prevent unjust enrichment of the party having caused the injury. The party having caused the injury and that retain and use the money owed to the injured party during the resolution of the dispute enjoys an unfair benefit. Such party is receiving the earning capacity without compensating the injured party for the loss of its use.

It is clear in international law today that, when someone engages in a wrongful act, it is liable for all damages that naturally result. Indeed, the party having caused the injury is liable for the loss of the use of money and must compensate by paying interest.<sup>51</sup> As a result, it has become an international practice to award interest, even for long period of time. Because claims in international disputes today often involve millions of dollars and because lengthy periods of time may elapse between the origin of the dispute and the final award, a tribunal's award of interest may be as large as the principal claim itself. Indeed, in *Compañía del Desarrollo de Santa Elena v. Costa Rica* an arbitral tribunal awarded US\$4.15 million in damages and US\$11.85 million in interest.<sup>52</sup>

Interest is found in many international treaties, conventions and uniform laws which provide the authority to award interest. The United Nations Convention on the International Sale of Goods (CISG), for instance, expressly provides that "[i]f either party fails to pay the price or any other sum that is in arrears, the other party is entitled to interest on it . . . ." In addition, the North American Free Trade Agreement provides that a tribunal deciding a dispute pursuant to NAFTA may award "monetary damages and any applicable interest." And uniform laws, such as the UNIDROIT Principles and the Principles of European Contract Law, also provide for the payment of compensatory interest. Many of the statutes and laws noted above deal with interest on damages. Most countries also typically permit the recovery of interest as damages.

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<sup>51</sup> See generally T. Wälde & B. Sabahi, "Compensation, Damages and Valuation in International Investment Law," available at <http://www.transnational-dispute-management.com>; J. Gotanda, "Damages in Private International Law," 326 *Recueil des cours*, p. 73 (2007); see also *Factory at Chorzów*, 1928 P.C.I.J. (ser. A), No. 17; *S.D. Myers, Inc. v. Canada*, UNICTRAL (NAFTA) Award (Merits), 13 Nov. 2000 ¶ 311; *CMS Gas Transmission Co. v. Argentine Republic*, ICSID Case No. ARB/01/8, 12 May 2005 ¶ 400; *Compañía de Aguas del Aconquija, S.A. and Vivendi Universal S.A. v. Argentine Republic*, Award, 20 August 2007, ¶ 9.2.1 (ICSID).

<sup>52</sup> See, e.g., *Compañía del Desarrollo de Santa Elena v. Costa Rica*, 15 ICSID, p. 200 (2000), available at <http://www.worldbank.org/icsid/cases/awards.htm> (awarding of US\$4.15 million in damages and US\$11.85 million in interest); *KCA Drilling Ltd. v. Sonatrach*, International Chamber of Commerce [ICC] No. 5651 (awarding US\$23 million in damages and US\$26 million in interest), summarized in pertinent part in D. Branson & R. Wallace, Jr., "Awarding Interest in International Commercial Arbitration: Establishing a Uniform Approach," 28 *Va. J. Int'l L.*, p. 920 (1988); *Am. Bell Int'l Inc. v. Islamic Republic of Iran*, 12 *Iran-U.S. C1. Trib. Rep.*, p. 170 (1986) (awarding approximately US\$28 million in interest on damages of approximately US\$50 million); *Gov't of Kuwait v. Am. Indep. Oil Co.*, Mar. 24, 1982, 21 *I.L.M.*, p. 976 (awarding US\$83 million in damages and US\$96 million in interest); see also *Azurix Corp. v. Argentine Republic*, ICSID Case No. ARB/01/12, 14 July 2006, available at <http://www.worldbank.org/icsid/cases/awards.htm> (awarding approximately US\$165 million in damages and interest at the average rate applicable to the U.S. six month certificate of deposit, compounded semi-annually, or approximately US\$17.5 million in interest); *Siemens A.G. v. Argentine Republic*, ICSID Case No. ARB/02/8, 6 Feb. 2007, available at <http://www.worldbank.org/icsid/cases/awards.htm> (awarding approximately US\$218 million in damages and interest at the average rate applicable to the U.S. six month certificate of deposit, compounded annually, or approximately US\$34 million in interest).

Today, there exists an emerging body of international law jurisprudence that supports the general proposition that compensation may include an interest component based on compounding. In this respect, we can make reference to a few mass claim mechanisms having used the concept of interest. For instance, under CTR I, the first Claims Resolution Tribunal established in 1997 to process claims in respect of 5,570 dormant Swiss bank accounts dating from 1933-1945, specific rules have been crafted to readjust the 1930s and 1940s value of the accounts to present day values and they take into account the principal of compounding. In particular, the rules of the Claims Resolution Tribunal provides for applying the Current Value Adjustment Factor (CVAF), which “is an allowance for compounded investment return from the end of 1944 to the end of 1999”<sup>53</sup> It was recognized that an injured party should be compensated for the loss of the use of money and that compound interest may be necessary to achieve that goal.

In international investment arbitrations, the trend is also toward using compounding of interest.<sup>54</sup> For example, in *Middle East Cement Shipping and Handling Co v Arab Republic of Egypt*, the tribunal concluded “that, to make the compensation ‘adequate and effective’ pursuant to Art. 4. c) of the BIT, it is appropriate that the interest pursuant to the last sentence of Art. 4. c) of the BIT be awarded as compound interest.”<sup>55</sup> Similarly, in *Metalclad Corp. v United Mexican States*, the tribunal stated that compound interest will best “restore the Claimant to a reasonable approximation of the position in which it would have been if the wrongful act had not taken place.”<sup>56</sup> In addition, as the tribunal in *Seimans A.G. v. Republic of Argentina* noted, “tribunals have ruled that compound interest is a closer measure to the actual value lost by an investor.”<sup>57</sup> It explained:

“Where an owner of property has at some earlier time lost the value of his asset but has not received the monetary equivalent that then became due to him, the amount of compensation should reflect, at least in part, the additional sum that his money would have earned, had it, and the income generated by it, been reinvested each year at generally prevailing rates of interest.”<sup>58</sup>

### 12.3. MODEL APPROACH FOR SELECTING AN INTEREST RATE

In the following paragraphs, we now introduce the model approach to be used to derive the appropriate interest rate for adjusting 1948 values to present day. We advocate that such a model should be clearly principles-based, internationally consistent and converged. Such a framework is needed to act like a map to give coherence to the application of present day valuation, fully in line with international law.

<sup>53</sup> Rules on Interest, Charges, and Fees for Arbitral Decisions of the Claims Resolution Tribunal, ¶ d, available at [http://www.crt-ii.org/\\_crt-i/rules\\_interest.html](http://www.crt-ii.org/_crt-i/rules_interest.html).

<sup>54</sup> See Gotanda, “A Study of Interest,” *op. cit.* (discussing cases).

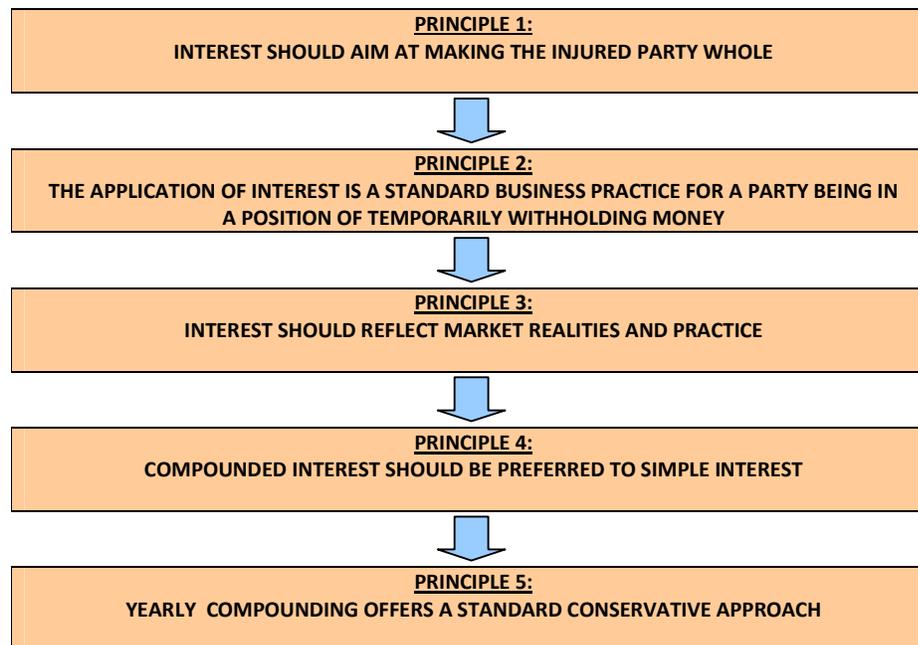
<sup>55</sup> *Middle East Cement Shipping and Handling Co. S.A. v. Arab Republic of Egypt* (ICSID Case No. ARB/99/6), Award of April 12, 2002, 18 *ICSID Rev.—FILJ* 602 (2003); 7 *ICSID Rep.* 173 (2005).

<sup>56</sup> *Metalclad Corp. v. United Mexican States*, ARB (AF)/97/1, 26 *Y.B. Com. Arb.* 99, ¶ 131 (2001).

<sup>57</sup> *Seimans A.G. v. Republic of Argentina*, *op. cit.*

<sup>58</sup> *Ibid.* ¶ 399.

In the following figure, we provide an outline of our step-by-step conceptual framework.



**PRINCIPLE ONE: INTEREST SHOULD AIM AT MAKING THE INJURED PARTY WHOLE**

There is a general principle calling for full compensation for damages resulting from an internationally wrongful act. This principle is certainly broad enough to support a claim for interest as damages as the purpose of awarding interest; the award would make the injured party whole from the loss, particularly the loss of the use of money. Thus, an injured party may argue that if a wrongful act had not occurred, it would have used its money earlier and would have had the opportunity to invest it. Logically, parties know that the failure to pay a sum of money on time will result in the aggrieved party not being able to use those funds that could generate a return on their capital.

Under our first principle, we argue that we should strive to place the injured party in the same position as it would have been in had no injury or loss occurred. In awarding interest to account for the passage of time, we would rightly recognize that the injured party is justly compensated not only for the original injury or loss but also for the passage of time between the date of injury or loss and the date of full reinstatement (i.e. date of agreement or payment of the global compensation).

Consequently, the award of interest should be generally based on what the injured party probably would have obtained if he had invested his money during the time he was deprived of it. The failure to adjust awards to a present day value by compensatory interest<sup>59</sup> would cause

<sup>59</sup> It should be made clear that we distinguish between the use of compensatory (“prejudgment” or “pre-award”) interest, the interest that is used to account for the lapse of time between the original injury and the

obvious economic harm to Palestinian refugees and provide a windfall to the State of Israel on the grounds that there is often a significant delay between the date of injury and the date of award.

Before developing our methodology for adjusting the 1948 loss to a value at the end of 2007, we need to agree on the convention to be used for defining the interest period and exchange rate conversion:

- **Date from which interest may run.** It is crucial to determine the period over which the interest will run. A fundamental question has to be asked regarding the exact date of loss. In our case, as said above, we assume that the date of loss will run from the end of 1947.
- **Date on which interest ceases to accrue.** In the case of actualization, this date is often assimilated to the date of payment. Other options are available, i.e. the closure of the processes determining the extent of the loss or the date of ending negotiation. Once the two dates described above have been established, it is possible to precisely define the period of reference for application of the interest. In our case, the period extends over 29 November 1947 and 31 December 2007. For convenience, we are ending the simulation at the end of the year, data being available until that point.
- **Interest rate parity and foreign currency adjustment.** We can easily avoid the problem of exchange rate conversion by simply converting Palestinian Pounds to US Dollars at the date of the loss (29 November 1947 or, for convenience, at the beginning of 1948). This is what has been done in all sections of this report.

#### PRINCIPLE TWO: THE APPLICATION OF INTEREST IS A STANDARD BUSINESS PRACTICE FOR A PARTY BEING IN A POSITION OF TEMPORARILY WITHHOLDING MONEY

In business and daily life, it is a standard practice to charge interest to people and organizations willing to give up the temporary use of their money. In today's financial world, investors are also asking for a rate of return commensurate to the risk undertaken. It should be clearly stated that interest is rarely equivalent to the rate of inflation. An individual who invests money for repayment at a later point in time expects to be compensated for the time value of money, or not having the use of that money while it is invested. In addition, the investor will want to be compensated for the risks undertaken in making the investment. Therefore, the investor should not only be compensated for inflation risks but also for systematic and regulatory risks. Such risks include the possibility of default or inability to fulfill the originally agreed upon terms. Not recognizing this reality would leave the claimant less than whole and result in a windfall to the party having caused the injury.<sup>60</sup>

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Arbitral award, and the use of moratory interest, often referred to as "post-judgment" or "post-award interest" because it is related to the delay in acting upon the judgment or award. In this article, the main concern is to provide an overview of the use of compensation interest.

<sup>60</sup> See *Compañía del Desarrollo de Santa Elena, op. cit.*, ¶ 104; *Pope & Talbot, Inc. v. The Government of Canada, Award in Respect of Damages by Arbitral Tribunal of 31 May 2002, UNCITRAL (NAFTA)*, at ¶ 89; *Wena Hotels, op. cit.*, ¶ 129; see also Gotanda, "Compound Interest in International Disputes," *op. cit.*

The concept of interest is very old, dating back to the Sumerian and Egyptian cultures. The Egyptian and the Sumerian had also devised a specific word for interest, “*ms*” which means “to give birth.” Not surprisingly, references to the concept can be found in the historical record, i.e. in the religious text of the Abrahamic religions that discussed the notion of excessive interest. In ancient time, the theory of interest is a natural concept for a pastoral society. If one lends someone a herd of thirty cattle for one year, one expects to be repaid with more than thirty cattle. In the Urukian time, the practice of lending money at interest was quite developed and a complex system for recording contractual obligations was invented. Interest is also found throughout the Middle Ages with different interpretation and, in the Renaissance era, greater mobility of people facilitated the spread of the practice of borrowing of money against an interest.

In today’s financial world, interest also reflects the price paid for borrowing money, such a price being expressed as a percentage rate over a period of time to reflect the rate of exchange of present consumption for future consumption. Interest charging is a standard practice in money markets, bond markets, and option and futures markets. By far the most common form in which financial assets are lent by banks is money, but other assets may be lent to the borrower against an interest charge (i.e. shares, consumer goods, equipment...), interest being considered as a “rent on money”.<sup>61</sup>

Overall, we can safely conclude that in most countries of the world, the award of interest is a standard business practice. This is leading us to articulate our second principle: Interest should consistently apply whenever a claimant is in a position of temporarily withholding money. It is a standard business practice to award interest to people and organizations willing to give up the temporary use of their money and this principle should be equally applied in international arbitration and litigation.

#### PRINCIPLE THREE: INTEREST SHOULD REFLECT MARKET REALITIES AND PRACTICE

##### **Background**

We strongly believe that the injured party is entitled to an interest reflecting market realities.

In normal business circumstances, we would have argued that the appropriate interest should equal the risk free rate (inclusive of inflation) plus a market risk premium to account for the fact that the injured party, at the time of injury, could have invested the foregone resources elsewhere in order to earn a rate of return available on his market of reference. Indeed, an individual or corporation investing money for repayment at a later point in time expects to be compensated for the time value of money, or not having the use of that money while it is invested.

However, in the case of Palestinian refugee losses, we need to take into consideration some factors:

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<sup>61</sup> See, e.g., Kellison S G, *The Theory of Interest*, R. D. Irwin Editor (Homewood), 1970

1. First, it is critical to recognize the unusual historical context of the 1948 war and the creation of an Israeli state thereafter with a new currency and new financial institutions replacing the old ones, making it difficult to base our analysis on the post-war economic conditions in the region since there is discontinuity in the financial system as a whole.
2. Second, investment opportunities were limited in pre-war Palestine. The absence of a national development administration contributed to the absence of a monetary authority and a central bank; the local and foreign banks depending on themselves and their activities being limited because of a very low level of deposits. As a result, the pre-war market indices in Palestine cannot be used to derive a reliable rate of return for actualization purposes.
3. Third, it is necessary to precisely define the period of reference to be used for the calculation of present values. We have assumed the date of loss to be 29 November 1947, being the date on which the United Nations General Assembly adopted Resolution 181 concerning the partition of Palestine and establishing the parity of the two peoples with respect to their respective rights to establish states on the former mandated territory of Palestine. However, for practical reasons, loss values have been actualized between the beginning of 1948 and the end of 2007 (We may want to adjust this period at a later stage).

#### **Precedents related to the file: The Knesset Committee**

In a research paper by Romesh Weeramantry<sup>62</sup> discussed various legal precedents in awarding interest. The paper concluded that a major recommendation is for the NSU to give significant weight to the methods adopted by the Knesset Committee. The paper states that the “losses under consideration by that Committee have two very important connections with the claims of the Palestinian refugees. First, the temporal issues are similar in that they both concern losses dating from the mid 20th century. Secondly, the geographical location of the assets in question is also similar in both situations. Moreover, the method of adjustment recommended by the Committee is a method that reflects a practice that appears to be accepted by Israel” (Page 50).

Before turning to the appropriateness of the Knesset approach for arriving at an interest, let us provide few words of background. Since the end of the 19th century, and especially since the end of the First World War in 1917, Jews from central and eastern Europe (as well as from America and western Europe) purchased lands, houses and apartments in the Land of Israel, mostly from 1918-1948 under the British Mandate Palestine). They deposited money in banks in the Land of Israel and purchased securities for investment. Upon the outbreak of the Second World War in 1939, the Mandatory government published the “Trading with the Enemy Ordinance” which intended, among other things, to prevent Germany and its allies from seizing the capital and property of its citizens and of the citizens of the countries they had conquered.

For the purposes of the ordinance, the Jews of Germany and its satellite states as well as the Jews of the countries conquered by Germany were defined as “enemies” and their real estate, money, securities and other assets were transferred to the ownership of the Custodian of Enemy Property, and essentially became the property of the Mandatory government. In accordance with the ordinance, the banks in the Land of Israel transferred the deposits of the “enemies” to

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<sup>62</sup> J. Romesh Weeramantry, Compensation for Palestinian Refugees: Adjusting Claims Arising in 1948 to Reflect Present Day Values, June 2007.

the Custodian of Enemy Property and indicated this in the accounts of the depositors. That same action was also taken in regard to the real estate assets. Most of the Jewish assets seized by the Custodian of Enemy Property belonged to Jews who resided permanently in Europe but whose assets were in Palestine. It subsequently became clear that many of the owners of property in Palestine who lived in Germany or its allied countries or countries conquered by them, perished in the Holocaust with their relatives, so that many Jewish assets remained in the possession of the Custodian of Enemy Property, having no claimants.

It is difficult to determine for certain the scope and exact composition of the assets of the Jews that were transferred to the Custodian of Enemy Property.<sup>63</sup> It is said that most of the property was in real estate, including hundreds of agricultural fields, both cultivated and uncultivated, urban plots and houses. A smaller, though considerable, portion of the property was in financial deposits, securities, etc. On the 15th of February 2000, the Knesset plenum approved the establishment of an inquiry committee about the restitution of assets of Holocaust victims. The examination found, in various documents and findings, that funds and accounts belonging to Holocaust victims or their heirs remained in the banks. The deposits were handed over to the State, though not at their real value at the time of the handing over. Deposits that were returned to their owners in accordance with the law, whether by the State or by the banks, were not returned at their full real value.

The inquiry committee laid down two methods for reappraising the said funds: a maximum reappraisal, and a minimum reappraisal. The first method was based on the linkage of the deposit to the index from the date of the outbreak of the war (1939) + 4% interest per annum, until September 2004. The second method was based on the linkage of the deposit from 1948 + 3% interest per annum until September 2004. The first reappraisal method will be used in cases in which the Holocaust victims and/or their heirs will be proven, and the second - regarding all deposits whose owners or heirs will not be found. As stated in the final report of the Knesset Committee, "the State's liability according to the maximum method of reappraisal amounts to NIS 586,980,926, and the liability of the banks to NIS 322,731,901"<sup>64</sup>. The final report stated: "Advisory Committee recommended that the funds be reappraised on the basis of linkage to the consumer price index in Israel for the period to be determined, with an addition of an annual compound interest of 4%, which is similar to what was decided in the Volker Committee, that examined the bank liability to Holocaust victims in Switzerland. This calculation is based on the calculation that is customary when the State collects debts or taxes from the citizens, or pays them."<sup>65</sup>

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<sup>63</sup> See the following link for an historical review on this issue:  
<http://www.hashava.org.il/eng/template/default.aspx?maincat=1&catid=13&pageid=25>

<sup>64</sup> Report of the Knesset Inquiry Committee on the Location and Restitution of Assets (in Israel) of Victims of the Holocaust, Parliamentary Committee of Inquiry On the Location and Restitution of Assets of Holocaust Victims in Israel Jerusalem, Tevet 5765 – December 2004, page 9.

<sup>65</sup> See the full text of the report entitled "Report of the Knesset Inquiry Committee on the Location and Restitution of Assets (in Israel) of Victims of the Holocaust" at  
[http://www.knesset.gov.il/committees/eng/docs/shoa\\_finalreport\\_eng.doc](http://www.knesset.gov.il/committees/eng/docs/shoa_finalreport_eng.doc)

In summary, we would like to stress that the Committee's method of adjustment is correct in the sense that it takes into account inflation and also adds a compound interest rate of return to take into account the investment earnings that should have been made if no wrong had occurred. However, the 3% or 4% figure added to the index seems arbitrary and without basis. Furthermore, we have not been able to locate the index used by the Knesset Committee.

#### **Our proposed approach for deriving interest rate**

We now provide a step-by-step framework to be considered for arriving at the most appropriate interest on a fair market basis.

#### STEP 1: INFLATION SHOULD BE INCLUDED IN THE INTEREST AND NOMINAL RATES SHOULD BE PREFERRED OVER REAL RATES

We would advise to follow the approach of the Knesset Committee and take into account inflation in the calculation of interest. The question becomes: What inflation index to use?

Prices go up every year and we could rightly argue that a claimant would seek to be compensated, at minimum, for that loss of purchasing power. This statement is obvious in the finance world. Without interest at least equal or above the inflation rate, lenders wouldn't be willing to lend, or to temporarily give up the ability to spend, and savers would be less willing to defer spending. This is why we argue that inflation be embedded in the interest when adjusting to present day value.

One would clearly prefer to work with nominal interest rate disclosed by financial institutions because they already include the inflation factor, plus the time value of the money itself. We do not recommend the use of real interest rates which only include the systematic and regulatory risks and are meant to measure the time value of money (Real rates = Nominal rates minus inflation). The real interest rate is often assimilated as the rate of return on a risk free investment, such as US Treasury bills, minus an index of inflation, such as the CPI.

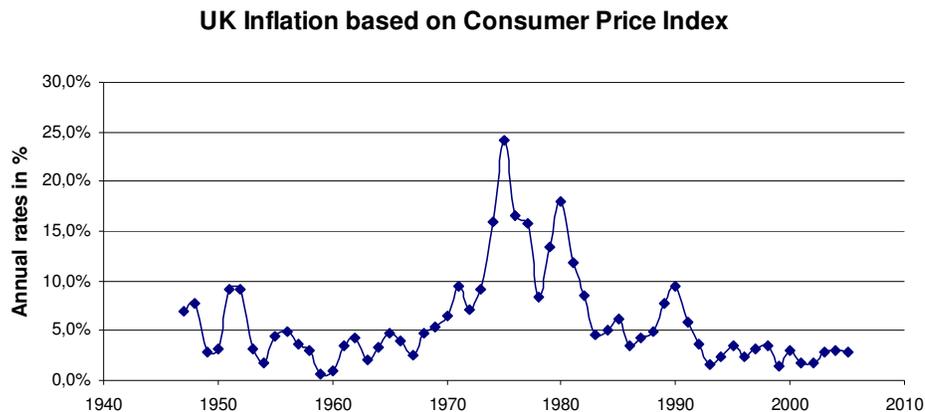
It is noted that the measure of inflation is readily available in most countries. Inflation is defined as a sustained increase in the general level of prices for goods and services. It is measured as an annual percentage increase. As inflation rises, every dollar you own buys a smaller percentage of a good or service. Let's take an example. For determining the UK inflation rate, we can refer to the UK Consumer Price Index (or CPI) based on a composite consumer price index showing changes in purchasing power between 1997 and today.<sup>66</sup> The source of information is widely available and we can use, for instance, a composite price index for analysis of consumer price inflation, or the purchasing power of the pound, over long periods of time. The CPI is a statistical measure of a weighted average of prices of a specified set of goods and services purchased by wage earners. It is an index which tracks retail prices of a specified set of consumer goods and services, providing a measure of inflation. The CPI is a fixed quantity price index and effectively represents a cost-of-living index.

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<sup>66</sup> The UK CPI index is based on both official and unofficial sources and, in our case, it replaces previous long-run inflation indices produced by the Office for National Statistics, the Bank of England and the House of Commons Library.

In the following graph, we show fluctuations in the CPI over the period of reference for our case study.

FIGURE 8: UK INFLATION (1948-2007)



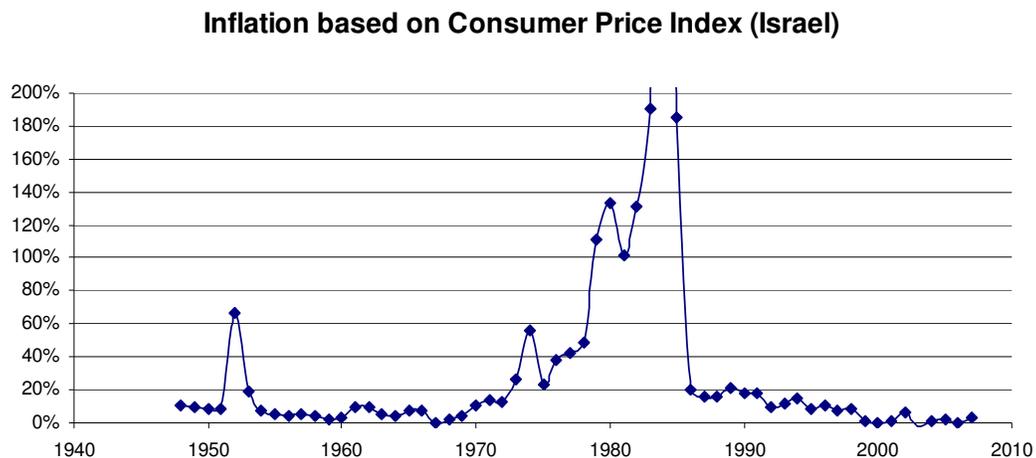
Over the period 1947-2007, the average annual inflation in the UK was 5.87% (based on the CPI)<sup>67</sup>.

Let's consider inflation from a neighboring country to Palestine. We have chosen Israel because the refugee lands and assets were originally located there (we have decided not to use Jordan or other neighboring countries due to the lack of reliable data). We are using the Israeli consumer price inflation index (base = 1951, end of November). The time series has been retrieved from the Israeli Central Bureau of Statistics, Price Statistics Monthly.<sup>68</sup> Under this option, the total loss amount in US dollars can be converted into Israeli lira (and later shekels) in 1948 value and adjusted for inflation yearly thereon.

<sup>67</sup> For the full index, please see the following web site:  
[http://www.statistics.gov.uk/downloads/theme\\_economy/Focus\\_on\\_CPI\\_April\\_2008.pdf](http://www.statistics.gov.uk/downloads/theme_economy/Focus_on_CPI_April_2008.pdf)

<sup>68</sup> See also [http://www.cbs.gov.il/price/t4\\_e.htm](http://www.cbs.gov.il/price/t4_e.htm)

FIGURE 9: ISRAELI INFLATION (1948-2007)



It should be noted that over the period of reference (1948-2007), the average annual inflation rate is 32.74%. This high rate can be explained because of major fluctuations and devaluations. As such, in the Israeli case, we do not recommend using inflation itself as a proxy of interest rate. One major drawback of an inflation-based method is its vulnerability to macroeconomic shocks and turbulence, i.e. devaluation and exchange rate exposures. Such turbulence can impact inflation and interest in different proportions (such it is the case for the Israeli inflation index).

In summary, we can safely conclude that a pure inflation approach for calculating interest does not reflect market realities. Such approach is flawed for the following reasons: 1) Inflation is a monetary phenomenon not related to interest rate policy only (In fact, inflation is influenced by the relative elasticity of different variables, including wages, prices and interest rates); 2) Consumer price indices which measures the price of a selection of goods purchased are not always representative; and 3) Inflation in itself does not account for the time value of money.

#### STEP 2: THE RISK FREE RATE APPROACH, INCLUSIVE OF INFLATION, AS A PROXY FOR INTEREST

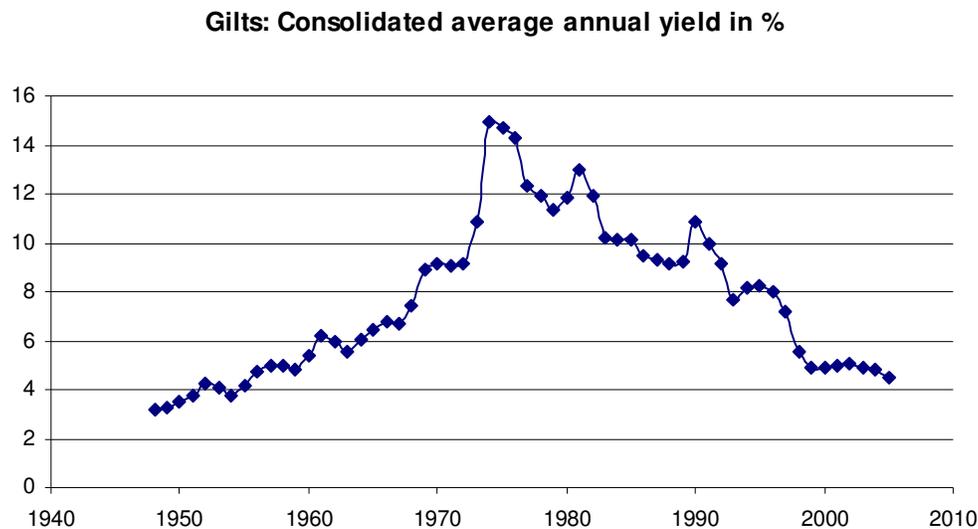
It could be argued that the rate of interest to be used for adjusting the award to present day value should be equal to the risk-free rate (inclusive of inflation). This rate represents the interest someone would expect from an absolutely risk-free investment over a specified period of time. It usually includes inflation. In theory, the risk-free rate is the minimum return an investor expects for any investment since he or she would not bear any risk unless the potential rate of return is greater than the risk-free rate.

The question becomes: How to obtain the risk-free rate? First, it should be noted that, in practice, the absolute risk-free rate does not exist since even the safest investments always carry a very small amount of risk, including the UK Gilts or the US Treasury Bill. Second, in terms of methodology, the risk-free rate of return should be assessed on a forward looking basis to reflect returns which investors could obtain in the market. The appropriate maturity to consider for the

risk-free rate should equal the investor's investment horizon for the risk bearing asset. Generally speaking, it is wise to use conventional medium term yield to maturity on government securities (e.g. Treasury bonds) in the country of reference. The advantage of this is that with government securities, default risk is relatively low. It is important to choose the appropriate interest rate (risk-free) by reference to the period of applicability of the interest. For instance, for adjusting an award to present day value over 10 years, one may choose a ten-year Treasury note.

In our case, we do not have any reliable risk free instrument available in the regional market. We could make reference to the US Treasury Bills or the UK Gilts markets. The second option makes more sense because Palestine was under British Mandate until 1948. Let's illustrate how annual yields fluctuate over time for the UK gilts market.

FIGURE 10: UK GILTS MARKET IN ANNUAL YIELD



For the UK gilts market data between 1948 and 2007, we obtain a consolidated average annual yield of 7.58% for the period.<sup>69</sup> On the other hand, for the US Treasury Bill market, the average over the same period is 4.96% (3 month T-Bill) and 6.15% (10 years T-Bill).

We propose to use the rate of 7.58% for actualizing values (based on the historical UK Gilt market). This is a 1.71% increase over the average annual UK inflation rate of 5.87% (based on the CPI).<sup>70</sup> We believe that the risk-free rate approach is appropriate for deriving the interest rate in the case of Palestinian losses. It assumes that the refugees would be compensated for inflation risks but also for systematic risks. Under such approach, we have derived a proxy rate for the time value of money and for placing refugees (on average) in the position that they would have occupied had the violation not taken place.

<sup>69</sup> Data 1900-96 source Bank of England, 1997 onwards UK Debt Management Office (DMO).

<sup>70</sup> For the full index, please see the following web site:

[http://www.statistics.gov.uk/downloads/theme\\_economy/Focus\\_on\\_CPI\\_April\\_2008.pdf](http://www.statistics.gov.uk/downloads/theme_economy/Focus_on_CPI_April_2008.pdf)

## STEP 3: THE OPPORTUNITY COST SHOULD NOT BE CONSIDERED

At first glance, some experts or lawyers may be tempted to argue that the claimant could be entitled to interest at the rate equivalent to the opportunity cost of capital over the period of reference. It would be theoretically correct to assume that the award of interest be envisaged at the opportunity cost for the Palestinian refugees under the assumption that the refugees could have invested the foregone resources in order to earn a rate of return above inflation and the risk-free rate.

This concept is based on the premise that an investor prefers to receive a payment of a fixed amount of money today, rather than an equal amount in the future, all else being equal. The theory is also based on the premise that investors should earn incremental returns on their investments that are proportional to the amount of additional risk those investments add to their portfolio. The amount of additional risk is measured relative to the return on a risk-free asset (e.g., long-term, highly-rated government bonds), and the return on the equity market as a whole. Indeed, one may be tempted to argue that the amount invested could have been deposited in an interest-bearing bank account (instead of being invested) or in business projects of to yield interest.

The fallacy here has to do with risk. It is correct that the claimant's opportunity cost of capital includes a return that compensates him for the average risk it bears. However, in depriving the claimant of an asset worth Y in 1948, the risk associated to it has been removed and, as such, no compensation should be sought for a return on such risk. This is why we have argued that the claimant should only be entitled to interest compensating for the time value of money. As a result, we are not recommending using the opportunity cost approach for adjusting an award to present day value unless the claimant demonstrates in a credible manner how to arrive at such an opportunity cost.

## PRINCIPLE FOUR: COMPOUND INTEREST SHOULD BE PREFERRED TO SIMPLE INTEREST

One of the most difficult issues confronting us is whether to award simple or compound interest. Compound interest differs from simple interest in that the principal balance grows by the amount of interest earned in past periods depending on the stated compounding period (See below). Compound interest is sometimes referred to as the capitalization of interest or as 'interest on interest'. This type of interest computation is determined on the principal and any interest earned over a period of time. In the simple interest scenario, the interest that accrues each period is not added to the base that is used to calculate interest in future periods. Let's take an example. We want to calculate the interest on 1,000,000 euros at 5% interest per year for a period of ten years. The formula we'll use for this is the simple interest formula, or:

$$I = P r t$$

Where:

- (a) P is the principal amount, 1,000,000 euros
- (b) r is the interest rate, 5% per year, or in decimal form, 5/100=0.05
- (c) t is the time involved, 10 year time period

To find the simple interest, we multiply 1,000,000 euros  $\times$  0.05  $\times$  10 to get that the interest is: 500,000 euros. We can provide an illustration by adjusting an award of 1,000,000 euros according to different time and interest rate scenarios (on a yearly compounding basis, in euros).

Rate / Time period	5%	8%	12%	15%
5 years	1,276,282	1,469,328	1,790,848	2,011,357
10 years	1,628,895	2,158,925	3,105,848	4,045,558
15 years	2,078,928	3,172,169	5,473,566	8,137,062
20 years	2,653,298	4,801,021	9,646,293	16,366,537

All other things being equal, compound interest has a larger effect as the time period increases and as the interest rate increases. For instance, over a 10 year time period, the difference between a 5% interest and a 15% interest is quite significant, from 1.6 million to 4 million. Consequently, the compounding will have greater impact for high interest rates and longer period of time.

There is no real international consensus in international arbitration as to whether or not interest should be awarded on a simple or compound basis. Still, in the finance world, compound interest is the international standard applied in most time value applications. Indeed, the adoption of compound interest reflects the majority of commercial realities in that a loss of value incurred by a company, active in normal trading operations, implies the loss of use of that value. Not recognizing this reality would lead to awarding a windfall to the respondent.

#### PRINCIPLE FIVE: YEARLY COMPOUNDING OFFERS A STANDARD AND CONSERVATIVE APPROACH

The choice of the compounding period is crucial. The shorter the compounding period, the faster the principal amount will grow. All other things being equal, compound interest has also a larger effect as the time period increases and as the interest rate increases. For illustration, the following table shows a final principal amount, after 10 years, of an initial investment amount of 1,000,000 euros at an annual 5% interest rate, with the given compounding periods.

Periodic compounding $P(1 + r/n)^{Yn}$ (In euros)						
1	2	4	12	52	365	$Pe^{Yr}$
Yearly	Semi-annually	Quarterly	Monthly	Weekly	Daily	Continuous
1 628 895	1 638 616	1 643 619	1 647 009	1 648 325	1 648 665	1 648 721

Now, let's use a rate of 8% to demonstrate the effects of rate sensitivity over a principal amount of 1,000,000 euros.

Periodic compounding $P(1 + r/n)^{Yn}$ (In euros)						
1	2	4	12	52	365	$Pe^{Yr}$
<b>Yearly</b>	<b>Semi-annually</b>	<b>Quarterly</b>	<b>Monthly</b>	<b>Weekly</b>	<b>Daily</b>	<b>Continuou s</b>
2 158 925	2 191 123	2 208 040	2 219 640	2 224 173	2 225 346	2 225 541

There are no prescribed standards for choosing one particular compounding period over another (annually, quarterly, monthly or daily are the most common options).<sup>71</sup> In today's financial world, the compounding period usually depends on the financial products chosen by the client. For some financial products, interest is calculated on a quarterly basis, typically on the last day of the month (*i.e.*, the 31st of March, 30th of June, 30th of September, 31st of December). Other compounding periods are widely used in the financial industry. For example, interests paid for term deposits in many countries is done on a daily basis. For forfaiting transactions or bank-to-bank loans, interest can be calculated on a semi-annual basis and in case of short term finance even for the exact period, for example, 90 days.<sup>72</sup> We can easily conclude that, after looking at banking usage, a standard for the compounding period does not clearly emerge. However, continuous compounding is not widely used.<sup>73</sup>

Different practices can be also applied in different countries. Some countries would require financial institutions to have most of their interests on annual basis, banks then using several types of interest periods. For instance, for letters of credit and letters of guaranty, compounding could be done quarterly in advance after the first quarter. For loans, the compounding period could be "monthly past the month." It is also noted that interest rates for loans could be calculated on a daily balance, and applied monthly. This would obviously result in a compounding effect, based on the monthly cycle. On government bonds, long-term corporate bonds, bills and discount government papers, different practices can be found in the world.

In our case, we suggest using a conservative approach and use the yearly approach since that is a common default practice in the business community. Furthermore, the yearly compounding period is implicit in using average annual returns on the Gilt market.<sup>74</sup>

<sup>71</sup> T. Sénéchal, "Present Day Valuation In International Arbitration: A Six Principle-Based Framework For Awarding Interest," available at [www.http://transnational-dispute-management.com](http://transnational-dispute-management.com).

<sup>72</sup> *Ibid.*

<sup>73</sup> Here are some practices related to compounding:

- Bonds are often compounded on a yearly or semi-annual basis. Corporate bonds are most frequently payable on the semi annual basis. The amount of interest paid (each six months) is the disclosed interest rate divided by two (multiplied by the principal), the yearly compounded rate being higher than the disclosed rate.
- Mortgage loans generally refer to semi-annual compounding (but sometime the monthly compounding basis is used, *i.e.*, in the U.S. market).
- Most financial institutions worldwide award interest on a daily (and sometimes bi monthly) compounded basis for money on deposit.
- Continuous compounding is not widely used. In financial engineering, the valuation of derivatives may use continuous compounding, which is the limit as the compounding period approaches zero. The shorter the compounding period, the faster the principal amount will grow. Different options are available (annually, quarterly, monthly or daily are the most common options).

<sup>74</sup> See Sénéchal, *op. cit.*

#### 12.4. RECOMMENDATIONS FOR SELECTING AN INTEREST RATE

With the above caveats in mind, and the context provided on our case, we are now proposing a methodology to arrive at a reasonable interest rate accruing from the date of loss in 1948.

We propose the following approach:

- Under the first principle, we have argued that interest should aim at making the injured party whole after being deprived of the opportunity to earn a return on the use of its money. A failure to adjust values to present day would be contrary to well established international law principles that compensation must be full.
- Under the second principle, we have argued that a failure to adjust values for the passage of time would be also inconsistent with the practice of most of the major modern financial systems. If no adjustment is made for the passage of time, we may conclude that the injured party would be unjustly affected by the lack of opportunity to receive compensation for the temporary withholding of its money.
- Under the third principle, we have clearly stated that the injured party is entitled to an interest reflecting market realities. We have highlighted that a pure inflation-based approach is flawed for the following reasons: 1) Inflation is a monetary phenomenon not related to interest rate policy only (In fact, inflation is influenced by the relative elasticity of different variables, including wages, prices and interest rates); 2) Consumer price indices which measures the price of a selection of goods purchased are not always representative; and 3) Inflation in itself does not account for the time value of money. We have preferred an approach based on the risk free rate. We propose to use a rate derived from a risk-free instrument. Such rate would include all risk factors (systematic, regulatory, and inflation), plus the time value of the money itself. A risk-free rate represents the rate of interest an investor would expect from an absolutely risk-free investment over a specified period of time. Such a rate is made up of the inflation rate plus the minimum additional level of return required by an investor. In our case, we have used the UK gilts market which refers to UK Government bonds, that is, all types of government coupon bonds. UK government securities are known as 'gilt-edged' bonds or simply 'gilts'. They are widely regarded as one of the safest bond investments because they are backed by the UK government. The British gilts market is one of the most liquid and well-organized government bond markets in the world and, as such, it could be found suitable for use as a proxy to derive an appropriate rate of return. We have also argued that the opportunity cost would be difficult to define and derive.
- Under the fourth principle, we have advocated the use compounding interest over simple interest. Although we must admit that there is a line of authority that has generally awarded simple interest, we strongly advocate reverting to compounding, which is the standard in the financial community. The usually long delays between the time of injury and the time of award justifies the use of compound interest.

- Under the fifth principle, we concluded that there are no convergent standards for choosing the compounding period but advocated that yearly compounding seems to be a conservative basis.

In conclusion, the charging of compensatory interest is logical. A failure to adjust values between the date of the loss and the date of the award would be contrary to the well established international principle that compensation must be full.

## 12.5. FINAL COMPUTATIONS

In the following table, we summarize the present day values that we obtained from the different compounding approaches. We recommend using daily compounding which is a standard for deposits in banks.

The final aggregate value of USD3,293,363,781 has been actualized from 1<sup>st</sup> January 1948 to 31 December 2007 by using the rate of 7.58% on a yearly compounding basis. We obtain the following result:

**USD263,466,074,302**

TABLE 69: COMPOUNDING SIMULATIONS

Rate = r	<b>0,076</b>
Principal (P in 1948)	3 293 363 781
Duration (Y: years)	<b>60</b>

Periodic compounding $P(1 + r/n)^{Yn}$						
1	2	4	12	52	365	$P e^{Yr}$
<i>Yearly</i>	<i>Semi-annually</i>	<i>Quarterly</i>	<i>Monthly</i>	<i>Weekly</i>	<i>Daily</i>	<i>Continuous</i>
263 466 074 302	285 406 763 681	297 493 130 250	306 010 104 729	309 389 439 197	310 268 392 313	310 414 800 251

## CONCLUSION

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In this report we have provided a quantification of the aggregate value of losses incurred by Palestinian Arab refugees as a result of their forced displacement from what is now known as Israel, following military action during the years 1947 and 1948. Our aim was to provide a comprehensive view of a full range of financial losses suffered by approximately three quarters of a million Palestinian people so displaced. The following loss types have been covered: Rural land (including Beersheba land and built-ups); Urban land; Holy places; Loss of employment and livelihood; Personal property and movable assets; Business losses; and Arab share of state-owned property.

For technical reasons, the assessment of the aggregate value of the Palestinian property losses is based on the assumption that all properties have been lost. This assumption serves to simplify the valuation exercise by allowing the use of aggregate (instead of individualized) valuation methodologies. The assumption is based on technical considerations and therefore obviously without any prejudice to the Palestinian negotiating position on the issue of property restitution or any eventual negotiated solution on property restitution.

As a general principle, we have stated that compensation should be calculated on the basis of internationally-recognized principles of valuation. Market valuation basis is technically the best internationally recognized method, but implies determining true benchmark market evidence of land/property transfer deals struck between willing buyers and willing sellers on a given historical date. When market valuation cannot be used, recourse has been made to some compromise conventions or valuation techniques in order to achieve measurements in situations involving significant uncertainties i.e. lack of reliable market data sets.

Fundamental to our valuation methodology is the basic premise that all loss types will be supported by suitable documentation. From our investigations conducted in preliminary phases, we concluded that previous estimates were not sufficient, taken individually, to recommend a precise and comprehensive global figure for refugee property losses. However, historic information and archive records have been made available to us and we have been able to collect sufficient information and data for most loss types of our study.

Today, we believe that we have gathered a unique set of raw data. The reliability and accuracy of the data have been constantly tested during our valuation. Such records included the Atlas of Palestine, A Survey of Palestine, All That Remains, Village Statistics 1945, National Income of Palestine in 1944, etc. We have relied as much as possible on the data of the UNCCP Technical Program. The Kubursi assessment has also been used as a starting point for estimating non land losses, especially for movable assets, business losses and state-owned property.

It is important to note that we had to develop adjustment methods to deal with specific issues and apply such methods in a consistent manner over many loss types. For instance, we have been using the same ratio across all loss categories to obtain the share of refugee's losses from aggregate population data. In a similar fashion, we had to make adjustments in some sections for the Arab inhabitants that remained in their homes in Israel-occupied territory in 1948 and therefore develop specific ratios. These adjustments are explained in Section 3 of the report.

The total value of Palestinian refugee losses in 1948 has been assessed at £P816,826,752 or USD3,293,363,781. The final aggregate value has been actualized from 1st January 1948 to 31 December 2007 by using the rate of 7.58% on a yearly compounding basis. The rate is derived from the British gilts market, which is one of the most liquid and well-organized government bond markets in the world; as such, we believe that our approach is suitable as a proxy to derive an appropriate rate of return. In conclusion, we found that the present day valuation of USD3,293,363,781 (in 1948 value) is **USD263,466,074,302**.

## TECHNICAL APPENDICES

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### APPENDIX 1: POPULATION AND REFUGEE DATA

#### POPULATION GROWTH

Population of Palestine including Jews (1922-1946)		
Year	Total Population	Of which : Jews
1922 (Census)	752 048	83 790
1923 mid-year	778 989	89 660
1924 mid-year	804 962	94 945
1925 mid-year	847 238	121 725
1926 mid-year	898 902	149 500
1927 mid-year	917 315	149 789
1928 mid-year	935 951	151 656
1929 mid-year	960 043	156 481
1930 mid-year	992 559	164 796
1931 (Census)	1 033 314	174 606
1932 (31st Dec)	1 073 827	192 137
1933 (31st Dec)	1 140 941	234 967
1934 (31st Dec)	1 210 554	282 975
1935 (31st Dec)	1 308 112	355 157
1936 (31st Dec)	1 366 692	384 078
1937 (31st Dec)	1 401 794	395 836
1938 (31st Dec)	1 435 285	411 222
1939 (31st Dec)	1 501 698	445 457
1940 (31st Dec)	1 544 530	463 535
1941 (31st Dec)	1 585 500	474 102
1942 (31st Dec)	1 620 005	484 408
1943 (31st Dec)	1 676 571	502 912
1944 (31st Dec)	1 796 537 <sup>2</sup>	528 702 <sup>1</sup>
1945 (31st Dec)	1 871 271 <sup>2</sup>	554 329 <sup>1</sup>
1946 (31st Dec)	1 952 920 <sup>2</sup>	583 327 <sup>1</sup>

**Source :** Survey of Palestine (SOP), Vol.1, p.141 and Supplement p.10. See also McCarthy Table A3-1, p.65.

Notes :

1. Revised de facto figures
2. Corrected from Vilstat for tribes population and increased at 3.5% per annum for 1944-1946.
3. Figures for 1932 to 1943 include a fixed of 66 553,00 check this figure, there is a digit missing I think for all tribes which is a gross underestimate, corrected for 1944-1946.

## POPULATION OVERVIEW IN 1931

Population of Palestine, including Jews, Classified by Sub-District (Total, Rural) and by Town (Urban) according to 1931 Census							
Sub District	Total Population	Of which : Jews	Rural Population	Of which : Jews	Towns	Urban Population	Of which : Jews
Gaza	94 634	421	67 551	417	Gaza	17 046	1
					Khan Yunis	3 811	3
Beer Sheba	51 082	17	48 123	6	Beer Sheba	2 959	11
Jaffa	145 502	69 789	47 535	17 016	Jaffa	51 866	7 209
					Tel Aviv	46 101	45 564
Ramle	70 579	8 496	48 908	8 460	Ramle	10 421	8
					Lydda	11 250	28
Hebron	67 631	135	50 100	-	Hebron	17 531	135
Bethlehem	23 725	42	14 180	39	Bethlehem	6 815	2
					Beit Jala	2 730	1
Jerusalem	132 661	54 538	42 158	3 316	Jerusalem	90 503	51 222
Jericho	3 483	243	3 483	243	-	-	-
Ramallah	39 062	1	34 775	-	Ramallah	4 287	1
Tulkarm	46 328	666	41 501	648	Tulkarm	4 827	18
Nablus	68 706	10	51 517	4	Nablus	17 189	6
Jenin	41 411	4	38 705	2	Jenin	2 706	2
Haifa	95 472	23 367	42 245	7 443	Haifa	50 403	15 923
					Shafa `Amr	2 824	1
Nazareth	28 592	3 172	19 836	3 093	Nazareth	8 756	79
Beisan	15 123	1 950	12 022	1 862	Beisan	3 101	88
Tiberias	26 975	7 785	18 374	2 404	Tiberias	8 601	5 381
Acre	45 142	296	37 245	59	Acre	7 897	237
Safad	39 713	3 678	30 272	1 131	Safad	9 441	2 547
<b>TOTAL</b>	<b>1 035 821</b>	<b>174 610</b>	<b>648 530</b>	<b>46 143</b>		<b>387 291</b>	<b>128 467</b>

**Source:** Survey of Palestine, op.cit. Vol.1, Tables 7a,b,c, pp.147-149.

Notes :

- Figures include British forces (2 500) and rough estimates of tribes. Hence totals are slightly different from Table 2.1
- Sub-district designation as current in 1931. In 1944, boundaries of sub-districts were somewhat changed. All other data in this work are according to 1944 sub-divisions unless otherwise noted.

## JEWISH IMMIGRATION INTO PALESTINE

<b>Jewish Immigration to Palestine (1920-1945)</b>	
<b>Year</b>	<b>Authorized Jewish Immigration</b>
1920	5 514
1921	9 149
1922	7 844
1923	7 421
1924	12 856
1925	33 801
1926	13 081
1927	2 713
1928	2 178
1929	5 249
1930	4 944
1931	4 075
1932	9 553
1933	30 327
1934	42 359
1935	61 854
1936	29 727
1937	10 536
1938	12 868
1939	16 405
1940	4 547
1941	3 647
1942	2 194
1943	8 507
1944	14 464
1945	12 751
1946	7 851
<b>TOTAL</b>	<b>376 415</b>
<b>Source:</b> Survey of Palestine, op.cit, Vol.1, Table 1, p.185 and Supplement; and McCarthy, Table A9-1, A9-2, p.171.	
Notes :	
Figures include authorized immigrants and others who entered as tourists and subsequently registered as immigrants.	
Figures do not include illegal / smuggled immigrants	

APPENDIX 2: NATIONAL INCOME REGRESSION<sup>75</sup>

Nominal national income growth		Growth rate adjusted on yearly basis	Growth rate 1944-1948	Audit trail
<b>Year</b>	<b>Nominal NI</b>			
1939	30,04			Robert Nathan et al., Palestine: Problems and Promise, p. 156
1940				
1941				
1942	75,89			Robert Nathan et al., Palestine: Problems and Promise, p. 156
1943	90,00			Robert Nathan et al., Palestine: Problems and Promise, p. 156
1944	123,02			P.J. Loftus, National Income of Palestine, p. 1
1945	132,87	8,0%	8,0%	
1946	150,44	13,2%	22,3%	
1947	168,00	11,7%	36,6%	
1948	185,57	10,5%	50,8%	
2005	1186,83		106,2%	
Equation on national income	x E			
	17,566 34033			

<sup>75</sup> The endogenous variable (denoted by Y, the dependent variable) is one whose value is explained by the model, in our case the national income. The exogenous variables (denoted by X, the independent variable) are those whose values are determined outside the confines of the present model. The simplest relationship between the dependent and the independent variables is expressed in the following formula:

$$Y_i = \alpha + \beta X_i + \epsilon_i$$

where  $\alpha$  and  $\beta$  are the unknown regression parameters and  $\epsilon_i$  stands for an individual value which represents the stochastic part of the equation and is called the *error term*.  $\alpha$  will be the intercept and  $\beta$  will be the slope of the regression line. This decomposition reminds us that this regression equation represents a probabilistic instead of a deterministic model.

## APPENDIX 3: EXCHANGE RATE ANALYSIS AND DATA

Section 1: Exchange rate USD per GBP, monthly between 31 January 1927 and 31 December 1949 (Source: *Global Financial Data Database*)

Date	Open	High	Low	Close
01/31/1927	4.8488	4.8494	4.8444	4.8444
02/28/1927	4.845	4.8481	4.8444	4.8463
03/31/1927	4.8463	4.8525	4.8463	4.8519
04/30/1927	4.8519	4.8531	4.85	4.8525
05/31/1927	4.8519	4.855	4.8497	4.8525
06/30/1927	4.8538	4.8556	4.8513	4.8516
07/30/1927	4.8519	4.8525	4.8506	4.8525
08/31/1927	4.8519	4.8575	4.8519	4.8575
09/30/1927	4.8562	4.8625	4.8562	4.8606
10/31/1927	4.8612	4.8675	4.8612	4.865
11/30/1927	4.865	4.8756	4.8637	4.8738
12/31/1927	4.875	4.88	4.875	4.8762
01/31/1928	4.8769	4.8769	4.865	4.8663
02/29/1928	4.8669	4.8756	4.8656	4.8744
03/31/1928	4.8744	4.8784	4.8731	4.8775
04/30/1928	4.8775	4.8794	4.875	4.875
05/31/1928	4.8769	4.8794	4.875	4.8781
06/30/1928	4.879	4.8794	4.87	4.8725
07/31/1928	4.8694	4.8694	4.8522	4.8522
08/31/1928	4.8519	4.8519	4.8488	4.8488
09/29/1928	4.849	4.849	4.845	4.8456
10/31/1928	4.845	4.8475	4.844	4.845
11/30/1928	4.8444	4.8481	4.8431	4.8481
12/31/1928	4.8469	4.85	4.8456	4.8488
01/31/1929	4.8469	4.8478	4.844	4.844
02/28/1929	4.8444	4.8513	4.8444	4.8481
03/30/1929	4.8481	4.85	4.8456	4.8481
04/30/1929	4.8481	4.85	4.8463	4.8484
05/31/1929	4.8488	4.8488	4.844	4.8444
06/29/1929	4.8444	4.845	4.8425	4.8425
07/31/1929	4.8428	4.8488	4.8428	4.8481
08/31/1929	4.8469	4.8475	4.8425	4.8431
09/30/1929	4.8425	4.8488	4.8406	4.8488
10/31/1929	4.8456	4.8731	4.8456	4.87
11/30/1929	4.8725	4.8738	4.8675	4.8738
12/31/1929	4.8731	4.8781	4.8725	4.8744
01/31/1930	4.8731	4.8731	4.8603	4.8612
02/28/1930	4.8612	4.8612	4.855	4.8556
03/31/1930	4.8553	4.865	4.855	4.8612
04/30/1930	4.8625	4.8625	4.8581	4.86

Date	Open	High	Low	Close
05/31/1930	4.8587	4.8587	4.8553	4.8562
06/30/1930	4.855	4.8575	4.8544	4.8569
07/31/1930	4.8575	4.8694	4.8575	4.8675
08/30/1930	4.8688	4.87	4.8663	4.8663
09/30/1930	4.8637	4.8637	4.8562	4.8562
10/31/1930	4.8556	4.859	4.8556	4.8556
11/29/1930	4.8556	4.8556	4.8525	4.8525
12/31/1930	4.8525	4.855	4.8516	4.8516
01/31/1931	4.8538	4.8538	4.8506	4.8534
02/28/1931	4.8538	4.8606	4.8525	4.8553
03/31/1931	4.8556	4.8575	4.8525	4.8556
04/30/1931	4.8562	4.8619	4.8556	4.8619
05/30/1931	4.8612	4.8631	4.86	4.8619
06/30/1931	4.8625	4.865	4.8603	4.8606
07/31/1931	4.8612	4.8681	4.83	4.855
08/31/1931	4.8544	4.8575	4.8456	4.8562
09/30/1931	4.8575	4.8575	3.49	3.87
10/31/1931	3.94	3.95	3.7775	3.825
11/30/1931	3.71	3.7925	3.3875	3.3875
12/31/1931	3.29	3.4388	3.2325	3.3775
01/30/1932	3.3925	3.4787	3.3475	3.4488
02/29/1932	3.4425	3.485	3.4137	3.485
03/31/1932	3.4825	3.7787	3.4825	3.7662
04/30/1932	3.7725	3.795	3.6288	3.655
05/31/1932	3.6563	3.695	3.6512	3.6862
06/30/1932	3.68	3.695	3.5875	3.5875
07/30/1932	3.5675	3.5763	3.4938	3.5044
08/31/1932	3.51	3.5125	3.4462	3.4675
09/30/1932	3.465	3.49	3.4462	3.4462
10/31/1932	3.4537	3.455	3.2713	3.2825
11/30/1932	3.2869	3.3275	3.1444	3.1875
12/31/1932	3.21	3.3363	3.1737	3.3275
01/31/1933	3.335	3.3963	3.335	3.3937
02/28/1933	3.3875	3.4413	3.3875	3.425
03/31/1933	3.4088	3.46	3.3127	3.4175
04/29/1933	3.4213	3.865	3.41	3.835
05/31/1933	3.875	3.99	3.8563	3.99
06/30/1933	3.9875	4.3	3.9862	4.255
07/31/1933	4.3175	4.82	4.3175	4.4454
08/31/1933	4.4012	4.615	4.38	4.5163
09/30/1933	4.5163	4.78	4.5163	4.7512
10/31/1933	4.7725	4.7825	4.485	4.755
11/30/1933	4.7875	5.3875	4.7875	5.17
12/30/1933	5.16	5.16	5.0275	5.12
01/31/1934	5.145	5.145	4.93	4.97
02/28/1934	4.96	5.1325	4.87	5.0625

Date	Open	High	Low	Close
03/31/1934	5.065	5.1262	5.065	5.1225
04/30/1934	5.1369	5.1725	5.13	5.1337
05/31/1934	5.105	5.1213	5.0637	5.0637
06/30/1934	5.0625	5.0662	5.0275	5.0425
07/31/1934	5.0456	5.0519	5.0275	5.0331
08/31/1934	5.03	5.0988	4.985	4.985
09/29/1934	4.9875	5.01	4.96	4.9612
10/31/1934	4.915	4.9763	4.89	4.975
11/30/1934	4.9775	5	4.9763	4.9763
12/31/1934	4.97	4.97	4.9338	4.9363
01/31/1935	4.9375	4.9375	4.835	4.8688
02/28/1935	4.8688	4.8837	4.8387	4.8387
03/30/1935	4.815	4.815	4.7238	4.785
04/30/1935	4.7888	4.8538	4.7888	4.83
05/31/1935	4.8225	4.935	4.8225	4.9275
06/29/1935	4.9125	4.945	4.9125	4.9387
07/31/1935	4.94	4.9625	4.935	4.9525
08/31/1935	4.955	4.9812	4.955	4.9612
09/30/1935	4.96	4.96	4.9075	4.9088
10/31/1935	4.9025	4.9175	4.885	4.9138
11/30/1935	4.9081	4.9294	4.9081	4.9241
12/31/1935	4.925	4.9338	4.9225	4.93
01/31/1936	4.9288	5.0012	4.9262	5.0012
02/29/1936	5.0037	5.0212	4.9775	4.9913
03/31/1936	4.9938	4.9938	4.9425	4.95
04/30/1936	4.955	4.955	4.9313	4.9375
05/30/1936	4.9381	4.9925	4.9381	4.9925
06/30/1936	4.9944	5.0363	4.9887	5.0144
07/31/1936	5.0156	5.0287	5.0062	5.0131
08/31/1936	5.0156	5.0313	5.0156	5.0294
09/30/1936	5.0313	5.0669	4.9094	4.945
10/31/1936	4.93	4.9306	4.8837	4.8881
11/30/1936	4.8888	4.9	4.8725	4.9
12/31/1936	4.9056	4.9138	4.8956	4.9088
01/30/1937	4.9088	4.915	4.8962	4.8969
02/27/1937	4.8944	4.8975	4.8863	4.8869
03/31/1937	4.8881	4.8894	4.8756	4.8881
04/30/1937	4.8906	4.9481	4.8844	4.9481
05/31/1937	4.9375	4.9431	4.9262	4.9338
06/30/1937	4.9237	4.9444	4.92	4.9325
07/31/1937	4.9431	4.9812	4.9406	4.9763
08/31/1937	4.9769	4.9887	4.9606	4.9644
09/30/1937	4.9631	4.9631	4.9431	4.9488
10/30/1937	4.9506	4.96	4.9494	4.96
11/30/1937	4.9612	5.015	4.9612	4.9931
12/31/1937	4.985	4.9994	4.985	4.9969

Date	Open	High	Low	Close
01/31/1938	5.0012	5.0119	4.9887	5.0119
02/28/1938	5.01	5.0338	5.0019	5.0194
03/31/1938	5.0169	5.0169	4.9462	4.9619
04/30/1938	4.9637	5.0069	4.9606	4.9862
05/31/1938	4.9856	4.9881	4.9338	4.9462
06/30/1938	4.9406	4.9706	4.9406	4.9525
07/30/1938	4.955	4.955	4.9125	4.9156
08/31/1938	4.9131	4.9131	4.8538	4.8538
09/30/1938	4.8531	4.8531	4.6	4.8113
10/31/1938	4.8169	4.8187	4.7063	4.7544
11/30/1938	4.7512	4.7594	4.6262	4.67
12/31/1938	4.6719	4.6894	4.6363	4.6363
01/31/1939	4.6219	4.6794	4.6219	4.6769
02/28/1939	4.6775	4.6912	4.6769	4.6863
03/31/1939	4.6856	4.6969	4.6781	4.6781
04/29/1939	4.6769	4.6813	4.6762	4.6788
05/31/1939	4.6788	4.6819	4.6788	4.6819
06/30/1939	4.6819	4.6844	4.6788	4.6788
07/31/1939	4.6788	4.6831	4.6788	4.6794
08/31/1939	4.6794	4.68	4.23	4.2663
09/30/1939	4.2	4.2	3.725	4.0125
10/31/1939	4.01	4.035	3.96	3.9925
11/30/1939	3.995	3.995	3.7675	3.865
12/30/1939	3.88	3.9537	3.88	3.9537
01/31/1940	3.9488	3.99	3.9075	3.9875
02/29/1940	3.97	3.9813	3.925	3.925
03/30/1940	3.9213	3.9237	3.445	3.5162
04/30/1940	3.5438	3.58	3.4275	3.505
05/31/1940	3.48	3.4825	2.995	3.18
06/29/1940	3.21	3.87	3.1788	3.765
07/31/1940	3.765	3.88	3.66	3.81
08/31/1940	3.825	4.03	3.825	4.03
09/30/1940	4.03	4.04	4.025	4.035
10/31/1940	4.035	4.0375	4.02	4.03
11/30/1940	4.0325	4.0375	4.0325	4.0375
12/31/1940	4.035	4.035	4.035	4.035
01/31/1941	4.035	4.035	4.0325	4.0325
02/28/1941	4.0325	4.0325	4.025	4.0325
03/31/1941	4.0325	4.0325	4.03	4.03
04/30/1941	4.03	4.03	4.0025	4.0275
05/31/1941	4.0275	4.0325	4.0275	4.0325
06/30/1941	4.0325	4.0325	4.03	4.03
07/31/1941	4.03	4.0325	4.03	4.0325
08/30/1941	4.0325	4.0325	4.03	4.03
09/30/1941	4.03	4.0325	4.03	4.03
10/31/1941	4.03	4.0325	4.03	4.0325

Date	Open	High	Low	Close
11/29/1941	4.0325	4.0325	4.0325	4.0325
12/31/1941	4.0325	4.0325	4.0325	4.0325
01/31/1942	4.0325	4.0325	4.0325	4.0325
02/28/1942	4.0325	4.0325	4.0325	4.0325
03/31/1942	4.0325	4.0325	4.0325	4.0325
04/30/1942	4.0325	4.0325	4.0325	4.0325
05/30/1942	4.0325	4.0325	4.0325	4.0325
06/30/1942	4.0325	4.0325	4.0325	4.0325
07/31/1942	4.0325	4.0325	4.0325	4.0325
08/31/1942	4.0325	4.0325	4.0325	4.0325
09/30/1942	4.0325	4.0325	4.0325	4.0325
10/31/1942	4.0325	4.0325	4.0325	4.0325
11/30/1942	4.0325	4.0325	4.0325	4.0325
12/31/1942	4.0325	4.0325	4.0325	4.0325
01/30/1943	4.0325	4.0325	4.0325	4.0325
02/27/1943	4.0325	4.0325	4.0325	4.0325
03/31/1943	4.02	4.02	4.02	4.02
04/30/1943	4.02	4.02	4.02	4.02
05/31/1943	4.02	4.02	4.02	4.02
06/30/1943	4.02	4.02	4.02	4.02
07/31/1943	4.02	4.02	4.02	4.02
08/31/1943	4.02	4.02	4.02	4.02
09/30/1943	4.02	4.02	4.02	4.02
10/30/1943	4.02	4.02	4.02	4.02
11/30/1943	4.02	4.02	4.02	4.02
12/31/1943	4.02	4.02	4.02	4.02
01/31/1944	4.02	4.02	4.02	4.02
02/29/1944	4.02	4.02	4.02	4.02
03/31/1944	4.02	4.02	4.02	4.02
04/29/1944	4.02	4.02	4.02	4.02
05/31/1944	4.02	4.02	4.02	4.02
06/30/1944	4.02	4.02	4.02	4.02
07/31/1944	4.02	4.02	4.02	4.02
08/31/1944	4.02	4.02	4.02	4.02
09/30/1944	4.02	4.02	4.02	4.02
10/31/1944	4.02	4.02	4.02	4.02
11/30/1944	4.02	4.02	4.02	4.02
12/30/1944	4.02	4.02	4.02	4.02
01/31/1945	4.02	4.02	4.02	4.02
02/28/1945	4.02	4.02	4.02	4.02
03/31/1945	4.02	4.02	4.02	4.02
04/30/1945	4.02	4.02	4.02	4.02
05/31/1945	4.02	4.02	4.02	4.02
06/30/1945	4.02	4.02	4.02	4.02
07/31/1945	4.02	4.0287	4.02	4.025
08/31/1945	4.025	4.025	4.025	4.025

Date	Open	High	Low	Close
09/29/1945	4.025	4.025	4.025	4.025
10/31/1945	4.025	4.025	4.025	4.025
11/30/1945	4.025	4.025	4.025	4.025
12/31/1945	4.025	4.025	4.025	4.025
01/31/1946	4.025	4.025	4.025	4.025
02/28/1946	4.025	4.025	4.025	4.025
03/30/1946	4.025	4.025	4.025	4.025
04/30/1946	4.025	4.025	4.025	4.025
05/31/1946	4.025	4.025	4.025	4.025
06/29/1946	4.025	4.025	4.025	4.025
07/31/1946	4.025	4.025	4.025	4.025
08/30/1946	4.025	4.025	4.025	4.025
09/30/1946	4.025	4.025	4.025	4.025
10/31/1946	4.025	4.025	4.025	4.025
11/30/1946	4.025	4.025	4.025	4.025
12/31/1946	4.025	4.025	4.025	4.025
01/31/1947	4.025	4.025	4.025	4.025
02/28/1947	4.0281	4.0281	4.0275	4.0275
03/31/1947	4.0275	4.0275	4.0275	4.0275
04/30/1947	4.0275	4.0281	4.0269	4.0275
05/31/1947	4.0275	4.0275	4.0275	4.0275
06/30/1947	4.0275	4.0275	4.0275	4.0275
07/31/1947	4.0275	4.0275	4.0261	4.0275
08/30/1947	4.0275	4.0281	4.0262	4.0275
09/30/1947	4.0287	4.0325	4.0212	4.03
10/31/1947	4.0313	4.0325	4.03	4.03
11/29/1947	4.03	4.0381	4.0294	4.0319
12/31/1947	4.0313	4.0331	4.0313	4.0331
01/31/1948	4.0313	4.0319	4.0275	4.0313
02/28/1948	4.0313	4.0325	4.03	4.0313
03/31/1948	4.0313	4.0331	4.0313	4.0313
04/30/1948	4.0313	4.0325	4.0313	4.0319
05/31/1948	4.0319	4.0319	4.0306	4.0313
06/30/1948	4.0319	4.0325	4.0319	4.0319
07/31/1948	4.0319	4.0319	4.0319	4.0319
08/31/1948	4.0319	4.0319	4.0319	4.0319
09/30/1948	4.0319	4.0319	4.0319	4.0319
10/30/1948	4.0319	4.0319	4.0319	4.0319
11/30/1948	4.0319	4.0319	3.008	4.0319
12/31/1948	4.0319	4.0319	4.0319	4.0319
01/31/1949	4.0319	4.0319	4.0319	4.0319
02/28/1949	4.0319	4.0319	4.0319	4.0319
03/31/1949	4.0319	4.0319	4.03	4.0319
04/30/1949	4.0287	4.0313	2.792	4.0313
05/31/1949	4.0313	4.0319	2.692	4.03
06/30/1949	4.0281	4.03	2.728	4.03

Date	Open	High	Low	Close
07/30/1949	4.0275	4.0281	2.67	4.0281
08/31/1949	4.0287	4.0313	2.667	4.0287
09/30/1949	4.0287	4.0287	2.599	2.8012
10/31/1949	2.8012	2.8019	2.6	2.8012
11/30/1949	2.8019	2.8019	2.57	2.8006
12/31/1949	2.8006	2.8012	2.43	2.8006

**Section 2: Exchange rate USD per GBP, daily for the period 2 January 1947 until 15 May 1948**  
 (Source: *Global Financial Data Database*)

Date	Open	High	Low	Close
2/1/47	4.025	4.025	4.025	4.025
3/1/47	4.025	4.025	4.025	4.025
4/1/47	4.025	4.025	4.025	4.025
6/1/47	4.025	4.025	4.025	4.025
7/1/47	4.025	4.025	4.025	4.025
8/1/47	4.025	4.025	4.025	4.025
9/1/47	4.025	4.025	4.025	4.025
10/1/47	4.025	4.025	4.025	4.025
11/1/47	4.025	4.025	4.025	4.025
01/13/1947	4.025	4.025	4.025	4.025
01/14/1947	4.025	4.025	4.025	4.025
01/15/1947	4.025	4.025	4.025	4.025
01/16/1947	4.025	4.025	4.025	4.025
01/17/1947	4.025	4.025	4.025	4.025
01/18/1947	4.025	4.025	4.025	4.025
01/20/1947	4.025	4.025	4.025	4.025
01/21/1947	4.025	4.025	4.025	4.025
01/22/1947	4.025	4.025	4.025	4.025
01/23/1947	4.025	4.025	4.025	4.025
01/24/1947	4.025	4.025	4.025	4.025
01/25/1947	4.025	4.025	4.025	4.025
01/27/1947	4.025	4.025	4.025	4.025
01/28/1947	4.025	4.025	4.025	4.025
01/29/1947	4.025	4.025	4.025	4.025
01/30/1947	4.025	4.025	4.025	4.025
01/31/1947	4.025	4.025	4.025	4.025
1/2/47	4.0281	4.0281	4.0281	4.0281
3/2/47	4.0281	4.0281	4.0281	4.0281
4/2/47	4.0275	4.0275	4.0275	4.0275
5/2/47	4.0281	4.0281	4.0281	4.0281
6/2/47	4.0275	4.0275	4.0275	4.0275
7/2/47	4.0275	4.0275	4.0275	4.0275
8/2/47	4.0275	4.0275	4.0275	4.0275
10/2/47	4.0275	4.0275	4.0275	4.0275
11/2/47	4.0275	4.0275	4.0275	4.0275
12/2/47	4.0275	4.0275	4.0275	4.0275
02/13/1947	4.0275	4.0275	4.0275	4.0275
02/14/1947	4.0275	4.0275	4.0275	4.0275
02/15/1947	4.0275	4.0275	4.0275	4.0275
02/17/1947	4.0275	4.0275	4.0275	4.0275
02/18/1947	4.0275	4.0275	4.0275	4.0275
02/19/1947	4.0275	4.0275	4.0275	4.0275

Date	Open	High	Low	Close
02/20/1947	4.0281	4.0281	4.0281	4.0281
02/21/1947	4.0275	4.0275	4.0275	4.0275
02/22/1947	4.0275	4.0275	4.0275	4.0275
02/24/1947	4.0275	4.0275	4.0275	4.0275
02/25/1947	4.0275	4.0275	4.0275	4.0275
02/26/1947	4.0275	4.0275	4.0275	4.0275
02/27/1947	4.0275	4.0275	4.0275	4.0275
02/28/1947	4.0275	4.0275	4.0275	4.0275
1/3/47	4.0275	4.0275	4.0275	4.0275
3/3/47	4.0275	4.0275	4.0275	4.0275
4/3/47	4.0275	4.0275	4.0275	4.0275
5/3/47	4.0275	4.0275	4.0275	4.0275
6/3/47	4.0275	4.0275	4.0275	4.0275
7/3/47	4.0275	4.0275	4.0275	4.0275
8/3/47	4.0275	4.0275	4.0275	4.0275
10/3/47	4.0275	4.0275	4.0275	4.0275
11/3/47	4.0275	4.0275	4.0275	4.0275
12/3/47	4.0275	4.0275	4.0275	4.0275
03/13/1947	4.0275	4.0275	4.0275	4.0275
03/14/1947	4.0275	4.0275	4.0275	4.0275
03/15/1947	4.0275	4.0275	4.0275	4.0275
03/17/1947	4.0275	4.0275	4.0275	4.0275
03/18/1947	4.0275	4.0275	4.0275	4.0275
03/19/1947	4.0275	4.0275	4.0275	4.0275
03/20/1947	4.0275	4.0275	4.0275	4.0275
03/21/1947	4.0275	4.0275	4.0275	4.0275
03/22/1947	4.0275	4.0275	4.0275	4.0275
03/24/1947	4.0275	4.0275	4.0275	4.0275
03/25/1947	4.0275	4.0275	4.0275	4.0275
03/26/1947	4.0275	4.0275	4.0275	4.0275
03/27/1947	4.0275	4.0275	4.0275	4.0275
03/28/1947	4.0275	4.0275	4.0275	4.0275
03/29/1947	4.0275	4.0275	4.0275	4.0275
03/31/1947	4.0275	4.0275	4.0275	4.0275
1/4/47	4.0275	4.0275	4.0275	4.0275
2/4/47	4.0275	4.0275	4.0275	4.0275
3/4/47	4.0275	4.0275	4.0275	4.0275
4/4/47	4.0275	4.0275	4.0275	4.0275
5/4/47	4.0275	4.0275	4.0275	4.0275
7/4/47	4.0275	4.0275	4.0275	4.0275
8/4/47	4.0269	4.0269	4.0269	4.0269
9/4/47	4.0275	4.0275	4.0275	4.0275
10/4/47	4.0275	4.0275	4.0275	4.0275
11/4/47	4.0275	4.0275	4.0275	4.0275
12/4/47	4.0275	4.0275	4.0275	4.0275
04/14/1947	4.0275	4.0275	4.0275	4.0275

Date	Open	High	Low	Close
04/15/1947	4.0275	4.0275	4.0275	4.0275
04/16/1947	4.0275	4.0275	4.0275	4.0275
04/17/1947	4.0275	4.0275	4.0275	4.0275
04/18/1947	4.0275	4.0275	4.0275	4.0275
04/19/1947	4.0275	4.0275	4.0275	4.0275
04/21/1947	4.0275	4.0275	4.0275	4.0275
04/22/1947	4.0281	4.0281	4.0281	4.0281
04/23/1947	4.0275	4.0275	4.0275	4.0275
04/24/1947	4.0275	4.0275	4.0275	4.0275
04/25/1947	4.0275	4.0275	4.0275	4.0275
04/26/1947	4.0275	4.0275	4.0275	4.0275
04/28/1947	4.0275	4.0275	4.0275	4.0275
04/29/1947	4.0275	4.0275	4.0275	4.0275
04/30/1947	4.0275	4.0275	4.0275	4.0275
1/5/47	4.0275	4.0275	4.0275	4.0275
2/5/47	4.0275	4.0275	4.0275	4.0275
3/5/47	4.0275	4.0275	4.0275	4.0275
5/5/47	4.0275	4.0275	4.0275	4.0275
6/5/47	4.0275	4.0275	4.0275	4.0275
7/5/47	4.0275	4.0275	4.0275	4.0275
8/5/47	4.0275	4.0275	4.0275	4.0275
9/5/47	4.0275	4.0275	4.0275	4.0275
10/5/47	4.0275	4.0275	4.0275	4.0275
12/5/47	4.0275	4.0275	4.0275	4.0275
05/13/1947	4.0275	4.0275	4.0275	4.0275
05/14/1947	4.0275	4.0275	4.0275	4.0275
05/15/1947	4.0275	4.0275	4.0275	4.0275
05/16/1947	4.0275	4.0275	4.0275	4.0275
05/17/1947	4.0275	4.0275	4.0275	4.0275
05/19/1947	4.0275	4.0275	4.0275	4.0275
05/20/1947	4.0275	4.0275	4.0275	4.0275
05/21/1947	4.0275	4.0275	4.0275	4.0275
05/22/1947	4.0275	4.0275	4.0275	4.0275
05/23/1947	4.0275	4.0275	4.0275	4.0275
05/24/1947	4.0275	4.0275	4.0275	4.0275
05/26/1947	4.0275	4.0275	4.0275	4.0275
05/27/1947	4.0275	4.0275	4.0275	4.0275
05/28/1947	4.0275	4.0275	4.0275	4.0275
05/29/1947	4.0275	4.0275	4.0275	4.0275
05/30/1947	4.0275	4.0275	4.0275	4.0275
05/31/1947	4.0275	4.0275	4.0275	4.0275
2/6/47	4.0275	4.0275	4.0275	4.0275
3/6/47	4.0275	4.0275	4.0275	4.0275
4/6/47	4.0275	4.0275	4.0275	4.0275
5/6/47	4.0275	4.0275	4.0275	4.0275
6/6/47	4.0275	4.0275	4.0275	4.0275

Date	Open	High	Low	Close
7/6/47	4.0275	4.0275	4.0275	4.0275
9/6/47	4.0275	4.0275	4.0275	4.0275
10/6/47	4.0275	4.0275	4.0275	4.0275
11/6/47	4.0275	4.0275	4.0275	4.0275
12/6/47	4.0275	4.0275	4.0275	4.0275
06/13/1947	4.0275	4.0275	4.0275	4.0275
06/14/1947	4.0275	4.0275	4.0275	4.0275
06/16/1947	4.0275	4.0275	4.0275	4.0275
06/17/1947	4.0275	4.0275	4.0275	4.0275
06/18/1947	4.0275	4.0275	4.0275	4.0275
06/19/1947	4.0275	4.0275	4.0275	4.0275
06/20/1947	4.0275	4.0275	4.0275	4.0275
06/21/1947	4.0275	4.0275	4.0275	4.0275
06/23/1947	4.0275	4.0275	4.0275	4.0275
06/24/1947	4.0275	4.0275	4.0275	4.0275
06/25/1947	4.0275	4.0275	4.0275	4.0275
06/26/1947	4.0275	4.0275	4.0275	4.0275
06/27/1947	4.0275	4.0275	4.0275	4.0275
06/28/1947	4.0275	4.0275	4.0275	4.0275
06/30/1947	4.0275	4.0275	4.0275	4.0275
1/7/47	4.0275	4.0275	4.0275	4.0275
2/7/47	4.0275	4.0275	4.0275	4.0275
3/7/47	4.0268	4.0268	4.0268	4.0268
4/7/47	4.0275	4.0275	4.0275	4.0275
5/7/47	4.0275	4.0275	4.0275	4.0275
7/7/47	4.0275	4.0275	4.0275	4.0275
8/7/47	4.0275	4.0275	4.0275	4.0275
9/7/47	4.0275	4.0275	4.0275	4.0275
10/7/47	4.0261	4.0261	4.0261	4.0261
11/7/47	4.0261	4.0261	4.0261	4.0261
12/7/47	4.0261	4.0261	4.0261	4.0261
07/14/1947	4.0275	4.0275	4.0275	4.0275
07/15/1947	4.0275	4.0275	4.0275	4.0275
07/16/1947	4.0275	4.0275	4.0275	4.0275
07/17/1947	4.0275	4.0275	4.0275	4.0275
07/18/1947	4.0275	4.0275	4.0275	4.0275
07/19/1947	4.0275	4.0275	4.0275	4.0275
07/21/1947	4.0275	4.0275	4.0275	4.0275
07/22/1947	4.0275	4.0275	4.0275	4.0275
07/23/1947	4.0275	4.0275	4.0275	4.0275
07/24/1947	4.0275	4.0275	4.0275	4.0275
07/25/1947	4.0275	4.0275	4.0275	4.0275
07/26/1947	4.0275	4.0275	4.0275	4.0275
07/28/1947	4.0275	4.0275	4.0275	4.0275
07/29/1947	4.0275	4.0275	4.0275	4.0275
07/30/1947	4.0275	4.0275	4.0275	4.0275

Date	Open	High	Low	Close
07/31/1947	4.0275	4.0275	4.0275	4.0275
1/8/47	4.0275	4.0275	4.0275	4.0275
2/8/47	4.0275	4.0275	4.0275	4.0275
4/8/47	4.0275	4.0275	4.0275	4.0275
5/8/47	4.0275	4.0275	4.0275	4.0275
6/8/47	4.0275	4.0275	4.0275	4.0275
7/8/47	4.0275	4.0275	4.0275	4.0275
8/8/47	4.0275	4.0275	4.0275	4.0275
9/8/47	4.0275	4.0275	4.0275	4.0275
11/8/47	4.0275	4.0275	4.0275	4.0275
12/8/47	4.0275	4.0275	4.0275	4.0275
08/13/1947	4.0262	4.0262	4.0262	4.0262
08/14/1947	4.0262	4.0262	4.0262	4.0262
08/15/1947	4.0262	4.0262	4.0262	4.0262
08/16/1947	4.0262	4.0262	4.0262	4.0262
08/18/1947	4.0262	4.0262	4.0262	4.0262
08/19/1947	4.0262	4.0262	4.0262	4.0262
08/20/1947	4.0262	4.0262	4.0262	4.0262
08/21/1947	4.0281	4.0281	4.0281	4.0281
08/22/1947	4.0269	4.0269	4.0269	4.0269
08/23/1947	4.0269	4.0269	4.0269	4.0269
08/25/1947	4.0269	4.0269	4.0269	4.0269
08/26/1947	4.0275	4.0275	4.0275	4.0275
08/27/1947	4.0269	4.0269	4.0269	4.0269
08/28/1947	4.0269	4.0269	4.0269	4.0269
08/29/1947	4.0275	4.0275	4.0275	4.0275
08/30/1947	4.0275	4.0275	4.0275	4.0275
1/9/47	4.0287	4.0287	4.0287	4.0287
2/9/47	4.0313	4.0313	4.0313	4.0313
4/9/47	4.0212	4.0212	4.0212	4.0212
5/9/47	4.0313	4.0313	4.0313	4.0313
6/9/47	4.0313	4.0313	4.0313	4.0313
8/9/47	4.0225	4.0225	4.0225	4.0225
9/9/47	4.0225	4.0225	4.0225	4.0225
10/9/47	4.0275	4.0275	4.0275	4.0275
11/9/47	4.0287	4.0287	4.0287	4.0287
12/9/47	4.0275	4.0275	4.0275	4.0275
09/13/1947	4.0275	4.0275	4.0275	4.0275
09/15/1947	4.0275	4.0275	4.0275	4.0275
09/16/1947	4.0225	4.0225	4.0225	4.0225
09/17/1947	4.03	4.03	4.03	4.03
09/18/1947	4.03	4.03	4.03	4.03
09/19/1947	4.03	4.03	4.03	4.03
09/20/1947	4.03	4.03	4.03	4.03
09/22/1947	4.0313	4.0313	4.0313	4.0313
09/23/1947	4.0325	4.0325	4.0325	4.0325

Date	Open	High	Low	Close
09/24/1947	4.0313	4.0313	4.0313	4.0313
09/25/1947	4.0325	4.0325	4.0325	4.0325
09/26/1947	4.0287	4.0287	4.0287	4.0287
09/27/1947	4.0287	4.0287	4.0287	4.0287
09/29/1947	4.03	4.03	4.03	4.03
09/30/1947	4.03	4.03	4.03	4.03
1/10/47	4.0313	4.0313	4.0313	4.0313
2/10/47	4.0313	4.0313	4.0313	4.0313
3/10/47	4.0306	4.0306	4.0306	4.0306
4/10/47	4.0306	4.0306	4.0306	4.0306
6/10/47	4.0319	4.0319	4.0319	4.0319
7/10/47	4.0319	4.0319	4.0319	4.0319
8/10/47	4.0325	4.0325	4.0325	4.0325
9/10/47	4.0325	4.0325	4.0325	4.0325
10/10/47	4.0325	4.0325	4.0325	4.0325
11/10/47	4.0325	4.0325	4.0325	4.0325
12/10/47	4.0325	4.0325	4.0325	4.0325
10/14/1947	4.0325	4.0325	4.0325	4.0325
10/15/1947	4.0325	4.0325	4.0325	4.0325
10/16/1947	4.0325	4.0325	4.0325	4.0325
10/17/1947	4.0325	4.0325	4.0325	4.0325
10/18/1947	4.0325	4.0325	4.0325	4.0325
10/20/1947	4.0325	4.0325	4.0325	4.0325
10/21/1947	4.0319	4.0319	4.0319	4.0319
10/22/1947	4.0313	4.0313	4.0313	4.0313
10/23/1947	4.0319	4.0319	4.0319	4.0319
10/24/1947	4.0306	4.0306	4.0306	4.0306
10/25/1947	4.0306	4.0306	4.0306	4.0306
10/27/1947	4.0319	4.0319	4.0319	4.0319
10/28/1947	4.0319	4.0319	4.0319	4.0319
10/29/1947	4.03	4.03	4.03	4.03
10/30/1947	4.03	4.03	4.03	4.03
10/31/1947	4.03	4.03	4.03	4.03
1/11/47	4.03	4.03	4.03	4.03
2/11/47	4.0294	4.0294	4.0294	4.0294
3/11/47	4.0294	4.0294	4.0294	4.0294
5/11/47	4.0294	4.0294	4.0294	4.0294
6/11/47	4.03	4.03	4.03	4.03
7/11/47	4.0306	4.0306	4.0306	4.0306
8/11/47	4.0306	4.0306	4.0306	4.0306
10/11/47	4.0381	4.0381	4.0381	4.0381
11/11/47	4.035	4.035	4.035	4.035
12/11/47	4.0306	4.0306	4.0306	4.0306
11/13/1947	4.0313	4.0313	4.0313	4.0313
11/14/1947	4.0313	4.0313	4.0313	4.0313
11/15/1947	4.0313	4.0313	4.0313	4.0313

Date	Open	High	Low	Close
11/17/1947	4.0319	4.0319	4.0319	4.0319
11/18/1947	4.0319	4.0319	4.0319	4.0319
11/19/1947	4.0319	4.0319	4.0319	4.0319
11/20/1947	4.0313	4.0313	4.0313	4.0313
11/21/1947	4.0319	4.0319	4.0319	4.0319
11/22/1947	4.0319	4.0319	4.0319	4.0319
11/24/1947	4.0313	4.0313	4.0313	4.0313
11/25/1947	4.0313	4.0313	4.0313	4.0313
11/26/1947	4.0313	4.0313	4.0313	4.0313
11/27/1947	4.0313	4.0313	4.0313	4.0313
11/28/1947	4.0313	4.0313	4.0313	4.0313
11/29/1947	4.0319	4.0319	4.0319	4.0319
1/12/47	4.0313	4.0313	4.0313	4.0313
2/12/47	4.0319	4.0319	4.0319	4.0319
3/12/47	4.0319	4.0319	4.0319	4.0319
4/12/47	4.0319	4.0319	4.0319	4.0319
5/12/47	4.0319	4.0319	4.0319	4.0319
6/12/47	4.0319	4.0319	4.0319	4.0319
8/12/47	4.0319	4.0319	4.0319	4.0319
9/12/47	4.0319	4.0319	4.0319	4.0319
10/12/47	4.0319	4.0319	4.0319	4.0319
11/12/47	4.0319	4.0319	4.0319	4.0319
12/12/47	4.0313	4.0313	4.0313	4.0313
12/13/1947	4.0313	4.0313	4.0313	4.0313
12/15/1947	4.0319	4.0319	4.0319	4.0319
12/16/1947	4.0319	4.0319	4.0319	4.0319
12/17/1947	4.0319	4.0319	4.0319	4.0319
12/18/1947	4.0319	4.0319	4.0319	4.0319
12/19/1947	4.0313	4.0313	4.0313	4.0313
12/20/1947	4.0313	4.0313	4.0313	4.0313
12/22/1947	4.0319	4.0319	4.0319	4.0319
12/23/1947	4.0313	4.0313	4.0313	4.0313
12/24/1947	4.0331	4.0331	4.0331	4.0331
12/26/1947	4.0313	4.0313	4.0313	4.0313
12/27/1947	4.0313	4.0313	4.0313	4.0313
12/29/1947	4.0319	4.0319	4.0319	4.0319
12/30/1947	4.0313	4.0313	4.0313	4.0313
12/31/1947	4.0331	4.0331	4.0331	4.0331
2/1/48	4.0313	4.0313	4.0313	4.0313
3/1/48	4.0313	4.0313	4.0313	4.0313
5/1/48	4.0319	4.0319	4.0319	4.0319
6/1/48	4.0313	4.0313	4.0313	4.0313
7/1/48	4.0319	4.0319	4.0319	4.0319
8/1/48	4.0319	4.0319	4.0319	4.0319
9/1/48	4.0313	4.0313	4.0313	4.0313
10/1/48	4.0313	4.0313	4.0313	4.0313

Date	Open	High	Low	Close
12/1/48	4.0313	4.0313	4.0313	4.0313
01/13/1948	4.0319	4.0319	4.0319	4.0319
01/14/1948	4.0313	4.0313	4.0313	4.0313
01/15/1948	4.0306	4.0306	4.0306	4.0306
01/16/1948	4.0306	4.0306	4.0306	4.0306
01/17/1948	4.0306	4.0306	4.0306	4.0306
01/19/1948	4.0313	4.0313	4.0313	4.0313
01/20/1948	4.0319	4.0319	4.0319	4.0319
01/21/1948	4.0313	4.0313	4.0313	4.0313
01/22/1948	4.0319	4.0319	4.0319	4.0319
01/23/1948	4.0287	4.0287	4.0287	4.0287
01/24/1948	4.0287	4.0287	4.0287	4.0287
01/26/1948	4.0275	4.0275	4.0275	4.0275
01/27/1948	4.0281	4.0281	4.0281	4.0281
01/28/1948	4.0313	4.0313	4.0313	4.0313
01/29/1948	4.0313	4.0313	4.0313	4.0313
01/30/1948	4.0313	4.0313	4.0313	4.0313
01/31/1948	4.0313	4.0313	4.0313	4.0313
2/2/48	4.0313	4.0313	4.0313	4.0313
3/2/48	4.0313	4.0313	4.0313	4.0313
4/2/48	4.0319	4.0319	4.0319	4.0319
5/2/48	4.0319	4.0319	4.0319	4.0319
6/2/48	4.0319	4.0319	4.0319	4.0319
7/2/48	4.0319	4.0319	4.0319	4.0319
9/2/48	4.0319	4.0319	4.0319	4.0319
10/2/48	4.0319	4.0319	4.0319	4.0319
11/2/48	4.0319	4.0319	4.0319	4.0319
12/2/48	4.0319	4.0319	4.0319	4.0319
02/13/1948	4.0325	4.0325	4.0325	4.0325
02/14/1948	4.0325	4.0325	4.0325	4.0325
02/16/1948	4.0313	4.0313	4.0313	4.0313
02/17/1948	4.03	4.03	4.03	4.03
02/18/1948	4.0319	4.0319	4.0319	4.0319
02/19/1948	4.0319	4.0319	4.0319	4.0319
02/20/1948	4.0313	4.0313	4.0313	4.0313
02/21/1948	4.0313	4.0313	4.0313	4.0313
02/22/1948	4.0313	4.0313	4.0313	4.0313
02/24/1948	4.0319	4.0319	4.0319	4.0319
02/25/1948	4.0313	4.0313	4.0313	4.0313
02/26/1948	4.0319	4.0319	4.0319	4.0319
02/27/1948	4.0313	4.0313	4.0313	4.0313
02/28/1948	4.0313	4.0313	4.0313	4.0313
1/3/48	4.0313	4.0313	4.0313	4.0313
2/3/48	4.0319	4.0319	4.0319	4.0319
3/3/48	4.0313	4.0313	4.0313	4.0313
4/3/48	4.0319	4.0319	4.0319	4.0319

Date	Open	High	Low	Close
5/3/48	4.0313	4.0313	4.0313	4.0313
6/3/48	4.0313	4.0313	4.0313	4.0313
8/3/48	4.0319	4.0319	4.0319	4.0319
9/3/48	4.0331	4.0331	4.0331	4.0331
10/3/48	4.0331	4.0331	4.0331	4.0331
11/3/48	4.0331	4.0331	4.0331	4.0331
12/3/48	4.0331	4.0331	4.0331	4.0331
03/13/1948	4.0331	4.0331	4.0331	4.0331
03/15/1948	4.0331	4.0331	4.0331	4.0331
03/16/1948	4.0319	4.0319	4.0319	4.0319
03/17/1948	4.0319	4.0319	4.0319	4.0319
03/18/1948	4.0319	4.0319	4.0319	4.0319
03/19/1948	4.0319	4.0319	4.0319	4.0319
03/20/1948	4.0319	4.0319	4.0319	4.0319
03/22/1948	4.0319	4.0319	4.0319	4.0319
03/23/1948	4.0319	4.0319	4.0319	4.0319
03/24/1948	4.0319	4.0319	4.0319	4.0319
03/25/1948	4.0319	4.0319	4.0319	4.0319
03/26/1948	4.0319	4.0319	4.0319	4.0319
03/27/1948	4.0319	4.0319	4.0319	4.0319
03/29/1948	4.0313	4.0313	4.0313	4.0313
03/30/1948	4.0319	4.0319	4.0319	4.0319
03/31/1948	4.0313	4.0313	4.0313	4.0313
1/4/48	4.0313	4.0313	4.0313	4.0313
2/4/48	4.0313	4.0313	4.0313	4.0313
3/4/48	4.0319	4.0319	4.0319	4.0319
5/4/48	4.0319	4.0319	4.0319	4.0319
6/4/48	4.0313	4.0313	4.0313	4.0313
7/4/48	4.0319	4.0319	4.0319	4.0319
8/4/48	4.0319	4.0319	4.0319	4.0319
9/4/48	4.0319	4.0319	4.0319	4.0319
10/4/48	4.0319	4.0319	4.0319	4.0319
12/4/48	4.0319	4.0319	4.0319	4.0319
04/13/1948	4.0319	4.0319	4.0319	4.0319
04/14/1948	4.0319	4.0319	4.0319	4.0319
04/15/1948	4.0319	4.0319	4.0319	4.0319
04/16/1948	4.0319	4.0319	4.0319	4.0319
04/17/1948	4.0319	4.0319	4.0319	4.0319
04/19/1948	4.0325	4.0325	4.0325	4.0325
04/20/1948	4.0325	4.0325	4.0325	4.0325
04/21/1948	4.0325	4.0325	4.0325	4.0325
04/22/1948	4.0319	4.0319	4.0319	4.0319
04/23/1948	4.0319	4.0319	4.0319	4.0319
04/24/1948	4.0319	4.0319	4.0319	4.0319
04/26/1948	4.0319	4.0319	4.0319	4.0319
04/27/1948	4.0319	4.0319	4.0319	4.0319

Date	Open	High	Low	Close
04/28/1948	4.0319	4.0319	4.0319	4.0319
04/29/1948	4.0319	4.0319	4.0319	4.0319
04/30/1948	4.0319	4.0319	4.0319	4.0319
1/5/48	4.0319	4.0319	4.0319	4.0319
3/5/48	4.0306	4.0306	4.0306	4.0306
4/5/48	4.0306	4.0306	4.0306	4.0306
5/5/48	4.0306	4.0306	4.0306	4.0306
6/5/48	4.0319	4.0319	4.0319	4.0319
7/5/48	4.0319	4.0319	4.0319	4.0319
8/5/48	4.0319	4.0319	4.0319	4.0319
10/5/48	4.0319	4.0319	4.0319	4.0319
11/5/48	4.0319	4.0319	4.0319	4.0319
12/5/48	4.0319	4.0319	4.0319	4.0319
05/13/1948	4.0319	4.0319	4.0319	4.0319
05/14/1948	4.0319	4.0319	4.0319	4.0319
05/15/1948	4.0319	4.0319	4.0319	4.0319

## APPENDIX 4: VILLAGE STATISTICS 1945 SUMMARY

VILLAGE STATISTICS - SUMMARY													
District	Sub-District	Number of Villages and Towns	Population (in number)					Urban Areas (in dunums)					
			Moslems	Jews	Christians	Others	TOTAL	Arab	Jews	Public	Others	Roads, Railways, etc...	TOTAL
GALILEE DISTRICT	ACRE	57	47 290	2 950	11 150	6 940	68 330	1 150	1 992	293	50	242	3 727
	BEISAN	43	15 920	7 000	650	20	23 590	561	1	26	0	75	663
	NAZARETH	46	27 460	7 600	11 040	0	46 100	3 180	679	227	1 230	664	5 980
	SAFAD	90	44 510	6 700	1 680	780	53 670	991	153	64	7	214	1 429
	TIBERIAS	45	22 450	13 100	2 360	1 290	39 200	478	1 864	257	74	432	3 105
	<b>SUB-TOTAL</b>	<b>281</b>	<b>157 630</b>	<b>37 350</b>	<b>26 880</b>	<b>9 030</b>	<b>230 890</b>	<b>6 360</b>	<b>4 689</b>	<b>867</b>	<b>1 361</b>	<b>1 627</b>	<b>14 904</b>
HAIFA DISTRICT	HAIFA	84	85 590	104 510	30 200	4 330	224 630	6 570	29 877	7 911	6 642	6 177	57 177
	<b>SUB-TOTAL</b>	<b>84</b>	<b>85 590</b>	<b>104 510</b>	<b>30 200</b>	<b>4 330</b>	<b>224 630</b>	<b>6 570</b>	<b>29 877</b>	<b>7 911</b>	<b>6 642</b>	<b>6 177</b>	<b>57 177</b>
SAMARIA DISTRICT	JENIN	60	55 720	0	1 160	0	56 880	915	0	98	0	92	1 105
	NABLUS	92	87 480	0	1 510	210	89 200	4 861	15	126	20	549	5 571
	TULKARM	114	70 840	14 900	380	20	86 140	1 487	993	192	7	361	3 040
	<b>SUB-TOTAL</b>	<b>266</b>	<b>214 040</b>	<b>14 900</b>	<b>3 050</b>	<b>230</b>	<b>232 220</b>	<b>7 263</b>	<b>1 008</b>	<b>416</b>	<b>27</b>	<b>1 002</b>	<b>9 716</b>
JERUSALEM DISTRICT	HEBRON	40	89 400	80	160	10	89 650	2 434	20	5	2	330	2 791
	JERUSALEM	99	103 830	100 200	43 770	150	247 950	9 792	5 047	557	2 948	3 556	21 900
	RAMALLAH	62	38 990	0	8 290	0	47 280	2 290	0	92	107	332	2 821
	<b>SUB-TOTAL</b>	<b>201</b>	<b>232 220</b>	<b>100 280</b>	<b>52 220</b>	<b>160</b>	<b>384 880</b>	<b>14 516</b>	<b>5 067</b>	<b>654</b>	<b>3 057</b>	<b>4 218</b>	<b>27 512</b>
LYDDA DISTRICT	JAFFA	61	93 070	264 100	16 300	330	373 800	10 472	29 693	1 719	2 403	5 772	50 059
	RAMLA	101	92 340	29 420	5 500	10	127 270	4 545	4 285	246	83	1 388	10 547
	<b>SUB-TOTAL</b>	<b>162</b>	<b>185 410</b>	<b>293 520</b>	<b>21 800</b>	<b>340</b>	<b>501 070</b>	<b>15 017</b>	<b>33 978</b>	<b>1 965</b>	<b>2 486</b>	<b>7 160</b>	<b>60 606</b>
GAZA DISTRICT	GAZA	68	133 040	2 890	1 250	0	137 180	10 881	0	714	70	2 055	13 720
	<b>SUB-TOTAL</b>	<b>68</b>	<b>133 040</b>	<b>2 890</b>	<b>1 250</b>	<b>0</b>	<b>137 180</b>	<b>10 881</b>	<b>0</b>	<b>714</b>	<b>70</b>	<b>2 055</b>	<b>13 720</b>
<b>GRAND TOTAL (excluding Beersheba)</b>		<b>1 062</b>	<b>1 007 930</b>	<b>553 450</b>	<b>135 400</b>	<b>14 090</b>	<b>1 710 870</b>	<b>60 607</b>	<b>74 619</b>	<b>12 527</b>	<b>13 643</b>	<b>22 239</b>	<b>183 635</b>
BEERSEHBA		0	53 340	150	200	10	53 700	1 526	80	1 815	5	464	3 890
<b>GRAND TOTAL FOR PALESTINE</b>		<b>1 062</b>	<b>1 061 270</b>	<b>553 600</b>	<b>135 600</b>	<b>14 100</b>	<b>1 764 570</b>	<b>62 133</b>	<b>74 699</b>	<b>14 342</b>	<b>13 648</b>	<b>22 703</b>	<b>187 525</b>

VILLAGE STATISTICS - SUMMARY (Continued)															
Sub-District	Cat 1 to 2 (citrus) (in dunums)					Cat 3 (bananas) (in dunums)					Cat 4 (Built-on) (in dunums)				
	Arab	Jews	Public	Other	TOTAL	Arab	Jews	Public	Other	TOTAL	Arab	Jews	Public	Other	TOTAL
ACRE	8 288	197	0	243	8 728	41	12	0	81	134	3 377	169	0	10	3 556
BEISAN	396	1 221	0	0	1 617	307	155	19	0	481	449	1 609	20	0	2 078
NAZARETH	59	430	0	0	489	0	0	0	0	0	937	1 871	2	20	2 830
SAFAD	168	66	0	0	234	0	0	0	0	0	2 429	1 974	21	0	4 424
TIBERIAS	77	1 243	0	25	1 345	1	615	0	6	622	1 146	3 115	24	0	4 285
SUB-TOTAL	8 988	3 157	0	268	12 413	349	782	19	87	1 237	8 338	8 738	67	30	17 173
HAIFA	346	18 475	77	6	18 904	5	71	2	0	78	1 881	16 827	60	153	18 921
SUB-TOTAL	346	18 475	77	6	18 904	5	71	2	0	78	1 881	16 827	60	153	18 921
JENIN	43	0	0	0	43	0	0	0	0	0	1 686	0	0	6	1 692
NABLUS	25	0	16	0	41	4	0	6	0	10	4 177	0	32	3	4 212
TULKARM	15 968	31 859	4	0	47 831	199	131	0	0	330	2 291	4 644	14	0	6 949
SUB-TOTAL	16 036	31 859	20	0	47 915	203	131	6	0	340	8 154	4 644	46	9	12 853
HEBRON	0	0	0	0	0	0	0	0	0	0	3 170	0	34	1	3 205
JERUSALEM	63	0	296	108	467	1 107	0	507	123	1 737	3 819	1 921	20	265	6 025
RAMALLAH	0	0	0	0	0	0	0	0	0	0	2 575	0	3	36	2 614
SUB-TOTAL	63	0	296	108	467	1 107	0	507	123	1 737	9 564	1 921	57	302	11 844
JAFFA	44 434	41 192	794	3 275	89 695	41	37	11	204	293	720	7 671	2	771	9 164
RAMLA	39 071	40 153	241	1 171	80 636	125	57	0	0	182	1 997	1 035	21	3	3 056
SUB-TOTAL	83 505	81 345	1 035	4 446	170 331	166	94	11	204	475	2 717	8 706	23	774	12 220
GAZA	26 430	4 892	9	87	31 418	13	1	0	0	14	2 873	859	130	1	3 863
SUB-TOTAL	26 430	4 892	9	87	31 418	13	1	0	0	14	2 873	859	130	1	3 863
GRAND TOTAL (excluding Beersheba)	135 368	139 728	1 437	4 915	281 448	1 843	1 079	545	414	3 881	33 527	41 695	383	1 269	76 874
BEERSEHBA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL FOR PALESTINE	135 368	139 728	1 437	4 915	281 448	1 843	1 079	545	414	3 881	33 527	41 695	383	1 269	76 874

VILLAGE STATISTICS - SUMMARY (Continued)															
Sub-District	Cat 5 to 8 (plantations) (in dunums)					Cat 9 to 13 (taxable cereal) (in dunums)					Cat 14 to 15 (taxable cereal) (in dunums)				
	Arab	Jews	Public	Other	TOTAL	Arab	Jews	Public	Other	TOTAL	Arab	Jews	Public	Other	TOTAL
ACRE	82 582	1 382	576	100	84 640	207 805	7 494	353	937	216 589	52 767	346	15	0	53 128
BEISAN	8 296	7 679	4 933	0	20 908	135 307	103 200	14 405	179	253 091	7 500	4 498	1 950	5	13 953
NAZARETH	19 574	5 008	43	323	24 948	181 622	119 181	3 249	1 887	305 939	5 467	0	0	0	5 467
SAFAD	64 707	20 504	15 883	0	101 094	135 858	42 948	5 862	0	184 668	53 319	27 488	1 156	0	81 963
TIBERIAS	18 199	6 995	235	107	25 536	134 228	106 045	3 139	3 028	246 440	8 078	20 921	38	0	29 037
SUB-TOTAL	193 358	41 568	21 670	530	257 126	794 820	378 868	27 008	6 031	1 206 727	127 131	53 253	3 159	5	183 548
HAIFA	29 259	29 267	280	617	59 423	274 375	188 586	10 425	10 885	484 271	29 785	9 983	198	9	39 975
SUB-TOTAL	29 259	29 267	280	617	59 423	274 375	188 586	10 425	10 885	484 271	29 785	9 983	198	9	39 975
JENIN	86 004	0	55	0	86 059	346 672	4 173	11 705	0	362 550	38 299	0	124	0	38 423
NABLUS	155 158	0	3 490	67	158 715	250 813	0	14 825	4 040	269 678	224 107	0	54 581	215	278 903
TULKARM	93 158	1 991	30	617	95 796	346 773	91 890	6 469	8	445 140	17 379	0	0	0	17 379
SUB-TOTAL	334 320	1 991	3 575	684	340 570	944 258	96 063	32 999	4 048	1 077 368	279 785	0	54 705	215	334 705
HEBRON	65 996	474	325	464	67 259	398 172	2 496	4 271	47	404 986	181 739	1 790	1 791	300	185 620
JERUSALEM	78 263	2 333	5 715	6 036	92 347	118 215	9 333	1 007	25 817	154 372	85 148	1 787	9 052	422	96 409
RAMALLAH	203 718	0	19	300	204 037	90 340	45	161	18	90 564	74 764	22	0	5	74 791
SUB-TOTAL	347 977	2 807	6 059	6 800	363 643	606 727	11 874	5 439	25 882	649 922	341 651	3 599	10 843	727	356 820
JAFFA	13 634	5 137	1 219	1 394	21 384	84 029	40 244	3 131	8 787	136 191	35	380	0	0	415
RAMLA	65 390	8 769	3 783	1 181	79 123	346 457	50 849	12 689	8 009	418 004	19 972	507	2	317	20 798
SUB-TOTAL	79 024	13 906	5 002	2 575	100 507	430 486	91 093	15 820	16 796	554 195	20 007	887	2	317	21 213
GAZA	68 284	4 628	11 132	22	84 066	667 831	37 474	62 749	132	768 186	24 687	117	8 317	0	33 121
SUB-TOTAL	68 284	4 628	11 132	22	84 066	667 831	37 474	62 749	132	768 186	24 687	117	8 317	0	33 121
GRAND TOTAL (excluding Beersheba)	1 052 222	94 167	47 718	11 228	1 205 335	3 718 497	803 958	154 440	63 774	4 740 669	823 046	67 839	77 224	1 273	969 382
BEERSEHBA	0	0	0	0	0	1 934 849	65 151	0	0	2 000 000	0	0	0	0	0
GRAND TOTAL FOR PALESTINE	1 052 222	94 167	47 718	11 228	1 205 335	5 653 346	869 109	154 440	63 774	6 740 669	823 046	67 839	77 224	1 273	969 382

VILLAGE STATISTICS - SUMMARY (Continued)												
Sub-District	Cat 16 (Uncultivable) (in dunums)						Cat 17 (fish ponds) (in dunums)					
	Arab	Jews	Public	Other	Roads, Railways, etc...	TOTAL	Arab	Jews	Public	Other	TOTAL	
ACRE	339 684	13 405	73 468	60	2 544	429 161	0	0	0	0	0	
BEISAN	6 996	3 934	51 717	0	9 191	71 838	0	2 458	0	0	2 458	
NAZARETH	47 777	10 213	84 833	969	8 088	151 880	0	0	0	0	0	
SAFAD	217 501	27 267	68 514	0	7 949	321 231	0	1 088	0	0	1 088	
TIBERIAS	64 234	25 688	29 429	1 845	8 483	129 679	0	920	0	0	920	
SUB-TOTAL	676 192	80 507	307 961	2 874	36 255	1 103 789	0	4 466	0	0	4 466	
HAIFA	92 445	70 952	160 663	6 454	22 254	352 768	0	238	0	0	238	
SUB-TOTAL	92 445	70 952	160 663	6 454	22 254	352 768	0	238	0	0	238	
JENIN	228 346	78	114 197	0	2 654	345 275	0	0	0	0	0	
NABLUS	744 321	0	111 796	14 796	3 125	874 038	0	0	0	0	0	
TULKARM	173 391	9 853	20 548	0	15 720	219 512	0	0	0	0	0	
SUB-TOTAL	1 146 058	9 931	246 541	14 796	21 499	1 438 825	0	0	0	0	0	
HEBRON	1 332 923	1 352	76 145	340	1 564	1 412 324	0	0	0	0	0	
JERUSALEM	1 030 164	12 915	129 207	20 046	5 131	1 197 463	0	65	0	0	65	
RAMALLAH	308 309	79	2 294	23	1 032	311 737	0	0	0	0	0	
SUB-TOTAL	2 671 396	14 346	207 646	20 409	7 727	2 921 524	0	65	0	0	65	
JAFFA	5 048	5 085	5 105	83	12 844	28 165	0	0	0	0	0	
RAMLA	192 835	16 450	30 398	876	17 233	257 792	0	54	0	0	54	
SUB-TOTAL	197 883	21 535	35 503	959	30 077	285 957	0	54	0	0	54	
GAZA	29 315	1 289	123 145	37	23 327	177 113	0	0	0	0	0	
SUB-TOTAL	29 315	1 289	123 145	37	23 327	177 113	0	0	0	0	0	
<b>GRAND TOTAL (excluding Beersheba)</b>	<b>4 813 289</b>	<b>198 560</b>	<b>1 081 459</b>	<b>45 529</b>	<b>141 139</b>	<b>6 279 976</b>	<b>0</b>	<b>4 823</b>	<b>0</b>	<b>0</b>	<b>4 823</b>	
BEERSEHBA	0	0	10 573 110	0	0	10 573 110	0	0	0	0	0	
<b>GRAND TOTAL FOR PALESTINE</b>	<b>4 813 289</b>	<b>198 560</b>	<b>11 654 569</b>	<b>45 529</b>	<b>141 139</b>	<b>16 853 086</b>	<b>0</b>	<b>4 823</b>	<b>0</b>	<b>0</b>	<b>4 823</b>	

VILLAGE STATISTICS - SUMMARY (End)											
Sub-District	GRAND TOTALS (in dunums)						Total Tax Payable (in £P)				
	Arab	Jews	Public	Others	Roads, Railways, etc....	TOTAL	Arab	Jews	Public	Others	TOTAL
ACRE	695 694	24 997	74 705	1 481	2 786	799 663	9 222	3 389	542	286	13 439
BEISAN	159 812	124 755	73 070	184	9 266	367 087	3 649	3 405	351	5	7 410
NAZARETH	258 616	137 382	88 354	4 429	8 752	497 533	5 998	3 849	504	1 089	11 440
SAFAD	474 973	121 488	91 500	7	8 163	696 131	5 563	3 146	721	17	9 447
TIBERIAS	226 441	167 406	33 122	5 085	8 915	440 969	4 173	8 617	801	735	14 326
<b>SUB-TOTAL</b>	<b>1 815 536</b>	<b>576 028</b>	<b>360 751</b>	<b>11 186</b>	<b>37 882</b>	<b>2 801 383</b>	<b>28 605</b>	<b>22 406</b>	<b>2 919</b>	<b>2 132</b>	<b>56 062</b>
HAIFA	434 666	364 276	179 616	24 766	28 431	1 031 755	45 793	103 388	10 864	16 548	176 593
<b>SUB-TOTAL</b>	<b>434 666</b>	<b>364 276</b>	<b>179 616</b>	<b>24 766</b>	<b>28 431</b>	<b>1 031 755</b>	<b>45 793</b>	<b>103 388</b>	<b>10 864</b>	<b>16 548</b>	<b>176 593</b>
JENIN	701 965	4 251	126 179	6	2 746	835 147	8 451	72	590	4	9 117
NABLUS	1 383 466	15	184 872	19 141	3 674	1 591 168	14 833	35	813	129	15 810
TULKARM	650 646	141 361	27 257	632	16 081	835 977	9 844	5 895	360	11	16 110
<b>SUB-TOTAL</b>	<b>2 736 077</b>	<b>145 627</b>	<b>338 308</b>	<b>19 779</b>	<b>22 501</b>	<b>3 262 292</b>	<b>33 128</b>	<b>6 002</b>	<b>1 763</b>	<b>144</b>	<b>41 037</b>
HEBRON	1 984 434	6 132	82 571	1 154	1 894	2 076 185	8 977	82	100	16	9 175
JERUSALEM	1 326 571	33 401	146 361	55 765	8 687	1 570 785	56 058	70 998	5 361	30 470	162 887
RAMALLAH	681 996	146	2 569	489	1 364	686 564	10 327	2	282	191	10 802
<b>SUB-TOTAL</b>	<b>3 993 001</b>	<b>39 679</b>	<b>231 501</b>	<b>57 408</b>	<b>11 945</b>	<b>4 333 534</b>	<b>75 362</b>	<b>71 082</b>	<b>5 743</b>	<b>30 677</b>	<b>182 864</b>
JAFFA	158 413	129 439	11 981	16 917	18 616	335 366	43 866	275 589	5 078	9 728	334 261
RAMLA	670 392	122 159	47 380	11 640	18 621	870 192	13 979	11 287	1 120	427	26 813
<b>SUB-TOTAL</b>	<b>828 805</b>	<b>251 598</b>	<b>59 361</b>	<b>28 557</b>	<b>37 237</b>	<b>1 205 558</b>	<b>57 845</b>	<b>286 876</b>	<b>6 198</b>	<b>10 155</b>	<b>361 074</b>
GAZA	830 314	49 260	206 196	349	25 382	1 111 501	20 187	724	1 641	106	22 658
<b>SUB-TOTAL</b>	<b>830 314</b>	<b>49 260</b>	<b>206 196</b>	<b>349</b>	<b>25 382</b>	<b>1 111 501</b>	<b>20 187</b>	<b>724</b>	<b>1 641</b>	<b>106</b>	<b>22 658</b>
<b>GRAND TOTAL (excluding Beersheba)</b>	<b>10 638 399</b>	<b>1 426 468</b>	<b>1 375 733</b>	<b>142 045</b>	<b>163 378</b>	<b>13 746 023</b>	<b>260 920</b>	<b>490 478</b>	<b>29 128</b>	<b>59 762</b>	<b>840 288</b>
BEERSEHBA	1 936 375	65 231	10 574 925	5	464	12 577 000	10 360	896	490	4	11 750
<b>GRAND TOTAL FOR PALESTINE</b>	<b>12 574 774</b>	<b>1 491 699</b>	<b>11 950 658</b>	<b>142 050</b>	<b>163 842</b>	<b>26 323 023</b>	<b>271 280</b>	<b>491 374</b>	<b>29 618</b>	<b>59 766</b>	<b>852 038</b>

APPENDIX 5: VILLAGE STATISTICS 1945 – EXPERT’S CALCULATIONS

Calculations from VS45 #1 - Total Palestinian Land in Palestine												
Sub-District	Palestinian Land Ratio (in %)	Total Palestinian Land (in dunums)										
		Urban Areas	Cat 1 to 2 (citrus)	Cat 3 (bananas)	Cat 4 (Built-on)	Cat 5 to 8 (plantations)	Cat 9 to 13 (taxable cereal)	Cat 14 to 15 (taxable cereal)	Cat 16 (Uncultivable)	Cat 17 (fish ponds)	Total (in dunums)	Total Cultivable & Uncultivable (in dunums)
ACRE	87%	1 666	8 531	122	3 387	83 184	209 050	52 780	406 014	0	764 734	759 681
BEISAN	44%	605	396	315	458	10 446	141 764	8 355	33 543	0	195 882	194 820
NAZARETH	53%	4 881	59	0	958	19 920	185 227	5 467	97 873	0	314 385	308 546
SAFAD	68%	1 188	168	0	2 443	75 544	139 858	54 108	269 673	0	542 981	539 350
TIBERIAS	53%	914	102	7	1 159	18 429	138 904	8 098	85 984	0	253 597	251 525
SUB-TOTAL	65%	9 254	9 256	444	8 405	207 524	814 803	128 808	893 087	0	2 071 580	2 053 922
HAIFA	45%	19 485	386	6	2 061	30 001	289 902	29 882	180 350	0	552 074	530 528
SUB-TOTAL	45%	19 485	386	6	2 061	30 001	289 902	29 882	180 350	0	552 074	530 528
JENIN	84%	1 075	43	0	1 692	86 050	356 510	38 403	326 563	0	810 337	807 570
NABLUS	88%	5 476	39	9	4 208	158 301	267 921	272 435	860 419	0	1 568 809	1 559 125
TULKARM	78%	1 925	15 971	199	2 302	93 798	351 821	17 379	201 646	0	685 041	680 814
SUB-TOTAL	84%	8 476	16 053	208	8 202	338 150	976 252	328 217	1 388 629	0	3 064 187	3 047 510
HEBRON	96%	2 756	0	0	3 204	66 771	402 304	183 752	1 407 581	0	2 066 367	2 060 407
JERUSALEM	88%	16 360	431	1 676	4 102	89 328	144 918	93 536	1 168 431	0	1 518 783	1 498 322
RAMALLAH	99%	2 818	0	0	2 614	204 037	90 518	74 769	311 638	0	686 395	680 962
SUB-TOTAL	93%	21 934	431	1 676	9 919	360 136	637 740	352 057	2 887 651	0	4 271 545	4 239 691
JAFFA	52%	16 791	48 124	251	1 492	15 665	94 453	35	14 515	0	191 326	173 043
RAMLA	78%	5 909	40 431	125	2 016	69 536	364 411	20 291	231 043	0	733 762	725 837
SUB-TOTAL	71%	22 700	88 555	376	3 509	85 201	458 864	20 326	245 558	0	925 088	898 879
GAZA	75%	13 020	26 524	13	2 971	76 625	714 857	30 903	138 816	0	1 003 729	987 738
SUB-TOTAL	75%	13 020	26 524	13	2 971	76 625	714 857	30 903	138 816	0	1 003 729	987 738
<b>GRAND TOTAL (excluding Beersheba)</b>	78%	94 870	141 206	2 723	35 066	1 097 637	3 892 419	890 192	5 734 090	0	11 888 203	11 758 267
BEERSEHBA	15%	1 882	0	0	0	0	1 934 849	0	1 627 857	0	3 564 588	3 562 706
<b>GRAND TOTAL FOR PALESTINE</b>	48%	96 751	141 206	2 723	35 066	1 097 637	5 827 268	890 192	7 361 947	0	15 452 791	15 320 973

Calculations from VS45 #2 - Total Palestinian Land in Israel in 1949												
Sub-District	Land Outside Israel's Territory in 1949 (in %)	Total Palestinian Land inside the 1949 Israel (in dunums)										
		Urban Areas	Cat 1 to 2 (citrus)	Cat 3 (bananas)	Cat 4 (Built-on)	Cat 5 to 8 (plantations)	Cat 9 to 13 (taxable cereal)	Cat 14 to 15 (taxable cereal)	Cat 16 (Uncultivable)	Cat 17 (fish ponds)	Total (in dunums)	Total Cultivable & Uncultivable (in dunums)
ACRE	0%	1 666	8 531	122	3 387	83 184	209 050	52 780	406 014	0	764 734	759 681
BEISAN	1%	605	396	315	458	10 446	141 764	8 355	33 543	0	195 882	194 820
NAZARETH	0%	4 881	59	0	958	19 920	185 227	5 467	97 873	0	314 385	308 546
SAFAD	0%	1 188	168	0	2 443	75 544	139 858	54 108	269 673	0	542 981	539 350
TIBERIAS	0%	914	102	7	1 159	18 429	138 904	8 098	85 984	0	253 597	251 525
<b>SUB-TOTAL</b>	<b>0%</b>	<b>9 254</b>	<b>9 256</b>	<b>444</b>	<b>8 405</b>	<b>207 524</b>	<b>814 803</b>	<b>128 808</b>	<b>893 087</b>	<b>0</b>	<b>2 071 580</b>	<b>2 053 922</b>
HAIFA	0%	19 485	386	6	2 061	30 001	289 902	29 882	180 350	0	552 074	530 528
<b>SUB-TOTAL</b>	<b>0%</b>	<b>19 485</b>	<b>386</b>	<b>6</b>	<b>2 061</b>	<b>30 001</b>	<b>289 902</b>	<b>29 882</b>	<b>180 350</b>	<b>0</b>	<b>552 074</b>	<b>530 528</b>
JENIN	7%	1 075	43	0	1 692	86 050	356 510	38 403	326 563	0	810 337	807 570
NABLUS	100%	5 476	39	9	4 208	158 301	267 921	272 435	860 419	0	1 568 809	1 559 125
TULKARM	48%	1 925	15 971	199	2 302	93 798	351 821	17 379	201 646	0	685 041	680 814
<b>SUB-TOTAL</b>	<b>52%</b>	<b>8 476</b>	<b>16 053</b>	<b>208</b>	<b>8 202</b>	<b>338 150</b>	<b>976 252</b>	<b>328 217</b>	<b>1 388 629</b>	<b>0</b>	<b>3 064 187</b>	<b>3 047 510</b>
HEBRON	45%	2 756	0	0	3 204	66 771	402 304	183 752	1 407 581	0	2 066 367	2 060 407
JERUSALEM	86%	16 360	431	1 676	4 102	89 328	144 918	93 536	1 168 431	0	1 518 783	1 498 322
RAMALLAH	96%	2 818	0	0	2 614	204 037	90 518	74 769	311 638	0	686 395	680 962
<b>SUB-TOTAL</b>	<b>76%</b>	<b>21 934</b>	<b>431</b>	<b>1 676</b>	<b>9 919</b>	<b>360 136</b>	<b>637 740</b>	<b>352 057</b>	<b>2 887 651</b>	<b>0</b>	<b>4 271 545</b>	<b>4 239 691</b>
JAFFA	0%	16 791	48 124	251	1 492	15 665	94 453	35	14 515	0	191 326	173 043
RAMLA	10%	5 909	40 431	125	2 016	69 536	364 411	20 291	231 043	0	733 762	725 837
<b>SUB-TOTAL</b>	<b>5%</b>	<b>22 700</b>	<b>88 555</b>	<b>376</b>	<b>3 509</b>	<b>85 201</b>	<b>458 864</b>	<b>20 326</b>	<b>245 558</b>	<b>0</b>	<b>925 088</b>	<b>898 879</b>
GAZA	35%	13 020	26 524	13	2 971	76 625	714 857	30 903	138 816	0	1 003 729	987 738
<b>SUB-TOTAL</b>	<b>35%</b>	<b>13 020</b>	<b>26 524</b>	<b>13</b>	<b>2 971</b>	<b>76 625</b>	<b>714 857</b>	<b>30 903</b>	<b>138 816</b>	<b>0</b>	<b>1 003 729</b>	<b>987 738</b>
<b>GRAND TOTAL (excluding Beersheba)</b>	<b>28%</b>	<b>94 870</b>	<b>141 206</b>	<b>2 723</b>	<b>35 066</b>	<b>1 097 637</b>	<b>3 892 419</b>	<b>890 192</b>	<b>5 734 090</b>	<b>0</b>	<b>11 888 203</b>	<b>11 758 267</b>
BEERSEHBA	0%	1 882	0	0	0	0	1 934 849	0	1 627 857	0	3 564 588	3 562 706
<b>GRAND TOTAL FOR PALESTINE</b>	<b>14%</b>	<b>96 751</b>	<b>141 206</b>	<b>2 723</b>	<b>35 066</b>	<b>1 097 637</b>	<b>5 827 268</b>	<b>890 192</b>	<b>7 361 947</b>	<b>0</b>	<b>15 452 791</b>	<b>15 320 973</b>

Calculations from VS45 #3 - Total Land lost by the Refugees												
Sub-District	Land still owned by Palestinians in 1949 (in %)	Land Lost by the 1948 Refugees										
		Urban Areas	Cat 1 to 2 (citrus)	Cat 3 (bananas)	Cat 4 (Built-on)	Cat 5 to 8 (plantations)	Cat 9 to 13 (taxable cereal)	Cat 14 to 15 (taxable cereal)	Cat 16 (Uncultivable)	Cat 17 (fish ponds)	Total (in dunums)	Total Cultivable & Uncultivable (in dunums)
ACRE	66%	567	2 901	41	1 152	28 283	71 077	17 945	138 045	0	260 010	258 292
BEISAN	0%	605	396	315	458	10 446	141 764	8 355	33 543	0	195 882	194 820
NAZARETH	57%	2 099	25	0	412	8 565	79 647	2 351	42 085	0	135 185	132 675
SAFAD	8%	1 093	155	0	2 248	69 501	128 669	49 779	248 099	0	499 543	496 202
TIBERIAS	22%	713	80	5	904	14 375	108 345	6 316	67 068	0	197 806	196 189
<b>SUB-TOTAL</b>	<b>31%</b>	<b>5 076</b>	<b>3 556</b>	<b>362</b>	<b>5 173</b>	<b>131 170</b>	<b>529 503</b>	<b>84 746</b>	<b>528 840</b>	<b>0</b>	<b>1 288 426</b>	<b>1 278 178</b>
HAIFA	31%	13 445	267	4	1 422	20 700	200 032	20 619	124 442	0	380 931	366 064
<b>SUB-TOTAL</b>	<b>31%</b>	<b>13 445</b>	<b>267</b>	<b>4</b>	<b>1 422</b>	<b>20 700</b>	<b>200 032</b>	<b>20 619</b>	<b>124 442</b>	<b>0</b>	<b>380 931</b>	<b>366 064</b>
JENIN	11%	956	38	0	1 506	76 585	317 294	34 179	290 641	0	721 200	718 738
NABLUS	0%	5 476	39	9	4 208	158 301	267 921	272 435	860 419	0	1 568 809	1 559 125
TULKARM	38%	1 193	9 902	123	1 427	58 155	218 129	10 775	125 021	0	424 725	422 105
<b>SUB-TOTAL</b>	<b>16%</b>	<b>7 626</b>	<b>9 979</b>	<b>133</b>	<b>7 141</b>	<b>293 041</b>	<b>803 344</b>	<b>317 389</b>	<b>1 276 081</b>	<b>0</b>	<b>2 714 735</b>	<b>2 699 968</b>
HEBRON	0%	2 756	0	0	3 204	66 771	402 304	183 752	1 407 581	0	2 066 367	2 060 407
JERUSALEM	5%	15 542	410	1 592	3 897	84 862	137 672	88 859	1 110 010	0	1 442 844	1 423 405
RAMALLAH	96%	113	0	0	105	8 161	3 621	2 991	12 466	0	27 456	27 238
<b>SUB-TOTAL</b>	<b>34%</b>	<b>18 411</b>	<b>410</b>	<b>1 592</b>	<b>7 205</b>	<b>159 794</b>	<b>543 597</b>	<b>275 602</b>	<b>2 530 056</b>	<b>0</b>	<b>3 536 667</b>	<b>3 511 051</b>
JAFFA	0%	16 791	48 124	251	1 492	15 665	94 453	35	14 515	0	191 326	173 043
RAMLA	10%	5 318	36 388	113	1 815	62 582	327 970	18 262	207 939	0	660 386	653 253
<b>SUB-TOTAL</b>	<b>5%</b>	<b>22 109</b>	<b>84 512</b>	<b>363</b>	<b>3 307</b>	<b>78 248</b>	<b>422 423</b>	<b>18 297</b>	<b>222 453</b>	<b>0</b>	<b>851 712</b>	<b>826 296</b>
GAZA	33%	8 724	17 771	9	1 991	51 339	478 955	20 705	93 006	0	672 499	661 784
<b>SUB-TOTAL</b>	<b>33%</b>	<b>8 724</b>	<b>17 771</b>	<b>9</b>	<b>1 991</b>	<b>51 339</b>	<b>478 955</b>	<b>20 705</b>	<b>93 006</b>	<b>0</b>	<b>672 499</b>	<b>661 784</b>
<b>GRAND TOTAL</b>	<b>25%</b>	<b>75 390</b>	<b>116 495</b>	<b>2 463</b>	<b>26 238</b>	<b>734 292</b>	<b>2 977 854</b>	<b>737 357</b>	<b>4 774 879</b>	<b>0</b>	<b>9 444 969</b>	<b>9 343 341</b>
BEERSEHBA	0%	1 882	0	0	0	0	1 934 849	0	1 627 857	0	3 564 588	3 562 706
<b>GRAND TOTAL FOR PALESTINE</b>	<b>12%</b>	<b>77 272</b>	<b>116 495</b>	<b>2 463</b>	<b>26 238</b>	<b>734 292</b>	<b>4 912 703</b>	<b>737 357</b>	<b>6 402 736</b>	<b>0</b>	<b>13 009 557</b>	<b>12 906 047</b>

## APPENDIX 6: LAND CATEGORIES UNDER THE BRITISH MANDATE

<b>Category 1</b>	Citrus (excluding Acre Sub-District)
<b>Category 2</b>	Citrus (Acre Sub-District)
<b>Category 3</b>	Bananas
<b>Category 4</b>	Village Built-up Area
<b>Category 5</b>	1st grade irrigated land 1st grade fruit plantation
<b>Category 6</b>	2nd grade irrigated land 2nd grade fruit plantation
<b>Category 7</b>	3rd grade irrigated land 3rd grade fruit plantation
<b>Category 8</b>	1st grade crop land 4th grade irrigated land 4th grade fruit plantation
<b>Category 9</b>	2nd grade crop land 5th grade irrigated land 5th grade fruit plantation
<b>Category 10</b>	3rd grade crop land 6th grade irrigated land 6th grade fruit plantation
<b>Category 11</b>	4th grade crop land 7th grade irrigated land 7th grade fruit plantation
<b>Category 12</b>	5th grade crop land 8th grade irrigated land 8th grade fruit plantation
<b>Category 13</b>	6th grade crop land 9th grade irrigated land 9th grade fruit plantation
<b>Category 14</b>	7th grade crop land 10th grade irrigated land
<b>Category 15</b>	8th grade crop land
<b>Category 16</b>	Forest, planted and indigenous, and uncultivable land
<b>Category 17</b>	Fish ponds

Source: Sami Hadawi and Atif Kubursi, Palestinian Rights and Losses in 1948, 1988, p. 33-34

APPENDIX 7: LAND OUTSIDE THE TERRITORY OCCUPIED BY ISRAEL UNDER THE GENERAL ARMISTICE AGREEMENTS OF 1949

District	Village		Area (in Dunums)		
			In West Bank	In Israel	Total
BEISAN (West Bank)	Whole Villages	n.a.	n.a.	n.a.	0
	Border Villages	El-Fatur	273	456	729
		El-Hamra	138	11,373	11,511
		Total	411	11,829	12,240
District	Village		Area (in Dunums)		
JENIN (West Bank)	Whole Villages	37 units	384,539	0	384,539
	Border Villages	Anin	11,319	3,730	15,049
		Arabuna	5,584	1,188	6,772
		Barta'a	11,064	9,435	20,499
		Birquin	19,353	94	19,447
		Faqqu'a	9,566	20,613	30,179
		Jalama	3,089	2,738	5,827
		Jalbun	9,951	24,008	33,959
		Mazar	1,190	13,311	14,501
		Mughaiyir	12,505	5,544	18,049
		Muqeilbila	849	6,279	7,128
		Raba	22,184	3,458	25,642
		Rummana	9,740	11,936	21,676
		Ti'innik	4,957	27,306	32,263
		Umm El-Fahm	1,649	75,593	77,242
		Ya'bad	37,555	250	37,805
		Yamun	19,074	1,287	20,361
		Zibda	11,564	360	11,924
Zububa	2,097	11,746	13,843		
Total		577,829	218,876	796,705	
District	Village		Area (in Dunums)		
NABLUS (West Bank)	Whole Villages	89 units	1,263,806	0	1,263,806
	Border Villages	Deir Balut	10,751	4,038	14,789
		Tubas	293,747	19,376	313,123
		Total	1,568,304	23,414	1,591,718
District	Village		Area (in Dunums)		
RAMALLAH (West Bank)	Whole Villages	59 units	657,917	0	657,917
	Border Villages	Beit Liqya	12,643	1,715	14,358
		Beit Sira	1,962	2,725	4,687
		Safa	7,802	1,800	9,602
		Total	680,324	6,240	686,564
District	Village		Area (in Dunums)		
JERUSALEM (West Bank)	Whole Villages	41 Units	1,014,443	0	1,014,443
		East Jerusalem	2,000	0	2,000
	Border Villages	Arab El Rashayda	154,445	4,700	159,145
		Sawahira	67,044	124	67,168
		Battir	6,636	1,392	8,028
		Beit Ikksa	4,773	4,500	9,273

		Beit I'nan	9,780	325	10,105
		Beit Mahsir	0	16,268	16,268
		Beit Safafa	2,676	638	3,314
		Beit Surik	2,316	4,633	6,949
		Husan	7,184	68	7,252
		Lifta	2,653	6,090	8,743
		Maliha	667	6,161	6,828
		Qabu	1,222	2,584	3,806
		Qaloniya	439	4,405	4,844
		Qatanna	3,766	5,698	9,464
		Qubeiba	3,139	45	3,184
		Sharafat	1,970	4	1,974
		Silwan	3,598	1,823	5,421
		Sur Baher	7,447	2,024	9,471
		Wad Fukin	3,411	6,517	9,928
		Walaja	4,091	13,617	17,708
		Total	1,303,700	81,616	1,385,316
District	Village	Area (in Dunums)			
		In West Bank	In Israel	Total	
HEBRON (West Bank)	Whole Villages	13 units	381,519	0	381,519
	Border Villages	Arab El-Jahalin	74,000	453,000	527,000
		Bieit 'Aula	22,185	1,860	24,045
		Dhahiriya	88,591	32,263	120,854
		Dura	136,121	104,583	240,704
		Idna	31,274	2,728	34,002
		Jab'a	6,138	1,207	7,345
		Khirbet Umm Burj	1,465	11,628	13,093
		Nuba	11,617	11,219	22,836
		Sammu'	45,672	93,200	138,872
		Surif	27,922	10,954	38,876
		Yatta	107,172	67,000	174,172
	Total	933,676	789,642	1,723,318	
District	Village	Area (in Dunums)			
		In West Bank	In Israel	Total	
RAMLE (West Bank)	Whole Villages	n.a.	n.a.	n.a.	0
	Border Villages	Beit Nuba	2,811	8,590	11,401
		Budros	3,675	5,747	9,422
		Deir Ayyub	1,000	5,028	6,028
		'Imwas	2,501	2,650	5,151
		Khirbet Musmar	1,450	1,704	3,154
		Latrun	904	7,472	8,376
		Lubban	9,842	12	9,854
		Majdal Yaba	5,747	20,885	26,632
		Midya	1,371	5,649	7,020
		Ni'lin	13,484	2,391	15,875
		Qibya	2,396	14,108	16,504
		Rantis	7,735	23,198	30,933
		Shilta	801	4,579	5,380
		Shuqba	13,164	1,849	15,013
Yalu	9,437	5,554	14,991		
Total	76,318	109,416	185,734		
District	Village	Area (in Dunums)			
		In West Bank	In Israel	Total	
TULKARM	Whole Villages	21 units	177,527	0	177,527

(West Bank)	Border Villages	Attil	7,229	108	7,337
		Baqa El-Sharqiya	3,950	36	3,986
		Deir El-Ghusun	14,838	12,932	27,770
		Falama	2,373	7	2,380
		Fardisya	205	887	1,092
		Far'un	6,422	2,429	8,851
		Habla	6,744	4,159	10,903
		Illar	13,827	154	13,981
		Irtah	1,364	1,585	2,949
		Jaiyus	12,513	58	12,571
		Kafr Bara	924	3,035	3,959
		Kafr Jammal	9,356	5,589	14,945
		Kafr Qasem	760	12,005	12,765
		Kafr Sur	8,867	2,059	10,926
		Kafr Thulth	24,488	1,450	25,938
		Nazlat 'Isa	2,013	17	2,030
		Qaffin	10,695	13,060	23,755
		Qalqiliya	11,808	16,107	27,915
		Qaqun	589	41,178	41,767
		Shweika	5,443	885	6,328
Taiyiba	4,581	36,044	40,625		
Tulkarm (rural)	3,981	25,626	29,607		
Zeita	1,643	4,767	6,410		
Total	332,140	184,177	516,317		
District	Village	Area (in Dunums)			
		In Gaza Strip	In Israel	Total	
GAZA STRIP	Whole Villages	Abu Middein	8,821	0	8,821
		Deir El Balah	14,735	0	14,735
		Gaza (urban)	10,072	0	10,072
		Jabaliya	11,497	0	11,497
		Khan Yunis (urban)	2,302	0	2,302
		Khan Yunis (rural)	53,820	0	53,820
		Nazla	4,510	0	4,510
		Nuseirat	10,425	0	10,425
		Rafah	40,579	0	40,579
		Summeiri	3,833	0	3,833
	Sub-Total	160,594	0	160,594	
	Border Villages	Abasan	14,343	1,741	16,084
		Bani Suheila	7,503	3,625	11,128
		Beit Hanun	12,136	7,899	20,035
		Beit Lahiya	12,953	25,423	38,376
		Dimra	1,883	6,609	8,492
		Gaza (rural)	72,795	87,949	160,744
		Khirbet Ikhza's	4,409	3,770	8,179
	Total	126,022	137,016	263,038	
	Beersheba	60,000	0	60,000	
TOTAL GAZA STRIP	346,616	137,016	483,632		

Source: Atif Kubursi, Palestinian Rights and Losses in 1948, pp. 224-229

APPENDIX 8: LIST OF TOWN AND VILLAGE PART OF WHOSE ARAB INHABITANTS  
REMAINED IN THEIR HOMES IN ISRAELI-OCCUPIED TERRITORY IN 1948

Sub-District	Village	Area (in dunums)
Acre	Abu Sinan	12,871
	Acre (Urban)	1,187
	Acre (Rural)	312
	Arraba	30,852
	Beit Jannan and Ein el-Asad	25,594
	Bi'na	14,839
	Buquei'a	10,276
	Deir el-Assad	8,366
	Deir Hanna	15,350
	Fassuta	26,619
	Jatt	5,907
	Judeida	5,215
	Julis	12,835
	Kafr Sumei'	7,150
	Kafr Yasif	6,729
	Kisra	10,598
	Majd El Kurum	17,828
	Makr	8,661
	Mazra'a	3,116
	Mi'ilya	19,136
	Nahf	15,654
	Rama	23,701
	Sajur	8,172
	Sakhnin	70,181
	Sha'b	17,870
	Sheik Dawud and Sheik Dannun	11,771
	Tamra	30,549
	Tarshiba and Kabri	37,308
	Yanuh	12,466
	Yirka	30,597
<b>Total</b>	<b>501,710</b>	
Sub-District	Village	Area (in dunums)
Haifa	Ar'ara	29,537
	Arab El-Ghawarna	2,531
	Daliyat El-Karmil	19,741
	Fureidis	4,220
	I'billin	16,019
	Isfiya	16,811
	Kafr Qari'	14,543
	Shafa 'Amr (Urban)	297
	Shafa 'Amr (Rural)	58,428
	Wadi 'Ara	7,846
	<b>Total</b>	<b>169,973</b>
Sub-District	Village	Area (in dunums)
Jenin	Barta'a	4,320
	Muqueibila	2,687

	Sandala	3,217
	Umm El-Fahm and Mu 'awiya, Mushefira, Musmus	68,311
	Zalafa	1,285
	<b>Total</b>	<b>79,820</b>
<b>Sub-District</b>	<b>Village</b>	<b>Area (in dunums)</b>
<b>Jerusalem</b>	Beit Jimal	4,799
	Qaryet El-Inab' (Abu Gosh)	6,435
	<b>Total</b>	<b>11,234</b>
<b>Sub-District</b>	<b>Village</b>	<b>Area (in dunums)</b>
<b>Nazareth</b>	Arab Es-Subeih	3,740
	Bu 'eina	6,793
	Dabburiya	13,373
	Ed-Dahi	3,011
	Ein Mahil	8,268
	Iksal	13,666
	Ilut	10,891
	Kafr Kanna	18,869
	Kafr Manda	12,703
	Kaukab	2,134
	Mash-had	9,852
	Na 'ura	5,535
	<b>Nazareth (Urban)</b>	<b>4,398</b>
	Nazareth (Rural)	8,201
	Nein	3,737
	Reina	15,899
	Rummana	1,485
	Sulam	2,358
	Tamra	3,604
	Tur'an	13,104
Uzeir	764	
Yafa	16,521	
<b>Total</b>	<b>178,906</b>	
<b>Sub-District</b>	<b>Village</b>	<b>Area (in dunums)</b>
<b>Safad</b>	Akbara	3,167
	Hurfeish	14,623
	Jish	12,430
	Tuba (Arab El-Heib)	13,684
	<b>Total</b>	<b>43,904</b>
<b>Sub-District</b>	<b>Village</b>	<b>Area (in dunums)</b>
<b>Tiberias</b>	Eilabun	11,190
	Mughar and El-Mansura	45,590
	<b>Total</b>	<b>56,780</b>
<b>Sub-District</b>	<b>Village</b>	<b>Area (in dunums)</b>
<b>Tulkarm</b>	Baqa El-Gharbiya	21,116
	Jaljulia	11,873
	Jatt	9,623
	Kafr Bara	3,956
	Kafr Qasim	12,718
	Qalansuwa	17,249
	Taiyiba	32,750

	Tira	26,803
	<b>Total</b>	<b>136,088</b>

Source: Atif Kubursi, Palestinian Rights and Losses in 1948, pp. 242-245

## APPENDIX 9: MARKET VALUATION DATA (KUBURSI)

SUB-DISTRICT	Cat 1 to 2 (citrus)			Cat 3 (bananas)			Cat 5 to 8 (plantations)		
	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum
ACRE	£ 50,00	£ 88,50	£ 127,00	£ 40,00	£ 57,50	£ 75,00	£ 28,00	£ 69,40	£ 110,80
BEISAN	£ 62,00	£ 65,00	£ 68,00	£ 51,00	£ 53,00	£ 55,00	£ 24,50	£ 32,25	£ 40,00
NAZARETH	£ 55,00	£ 60,00	£ 65,00	£ 64,88	£ 64,88	£ 64,88	£ 32,00	£ 39,50	£ 47,00
SAFAD	£ 70,00	£ 77,50	£ 85,00	£ 64,88	£ 64,88	£ 64,88	£ 22,00	£ 48,50	£ 75,00
TIBERIAS	£ 65,00	£ 67,50	£ 70,00	£ 43,00	£ 48,00	£ 53,00	£ 18,30	£ 29,15	£ 40,00
HAIFA	£ 70,00	£ 72,15	£ 74,30	£ 52,00	£ 52,00	£ 52,00	£ 21,40	£ 40,70	£ 60,00
JENIN	£ 60,00	£ 60,00	£ 60,00	£ 64,88	£ 64,88	£ 64,88	£ 30,00	£ 37,50	£ 45,00
NABLUS	£ 82,83	£ 82,83	£ 82,83	£ 64,88	£ 64,88	£ 64,88	£ 25,00	£ 25,00	£ 25,00
TULKARM	£ 55,00	£ 103,20	£ 151,40	£ 48,00	£ 78,00	£ 108,00	£ 16,00	£ 49,00	£ 82,00
HEBRON	£ 60,00	£ 60,00	£ 60,00	£ 64,88	£ 64,88	£ 64,88	£ 30,00	£ 37,00	£ 44,00
JERUSALEM	£ 82,83	£ 82,83	£ 82,83	£ 64,88	£ 64,88	£ 64,88	£ 33,00	£ 71,50	£ 110,00
RAMALLAH	£ 82,83	£ 82,83	£ 82,83	£ 64,88	£ 64,88	£ 64,88	£ 49,10	£ 49,10	£ 49,10
JAFFA	£ 102,00	£ 133,65	£ 165,30	£ 70,00	£ 97,50	£ 125,00	£ 58,00	£ 99,00	£ 140,00
RAMLA	£ 60,00	£ 120,00	£ 180,00	£ 65,00	£ 72,50	£ 80,00	£ 30,00	£ 67,50	£ 105,00
GAZA	£ 50,00	£ 86,50	£ 123,00	£ 49,00	£ 60,50	£ 72,00	£ 22,00	£ 41,45	£ 60,90
PALESTINE	£ 67,17	£ 82,83	£ 98,50	£ 58,14	£ 64,88	£ 71,61	£ 29,29	£ 49,10	£ 68,92

SUB-DISTRICT	Cat 9 to 13 (taxable cereal)			Cat 14 to 15 (taxable cereal)			Cat 16 (Uncultivable)		
	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum
ACRE	£ 12,00	£ 23,55	£ 35,10	£ 12,00	£ 15,00	£ 18,00	£ 11,00	£ 16,50	£ 22,00
BEISAN	£ 9,50	£ 20,75	£ 32,00	£ 9,00	£ 16,50	£ 24,00	£ 8,50	£ 20,25	£ 32,00
NAZARETH	£ 10,00	£ 20,00	£ 30,00	£ 10,00	£ 12,00	£ 14,00	£ 9,00	£ 17,00	£ 25,00
SAFAD	£ 7,50	£ 21,25	£ 35,00	£ 9,00	£ 22,00	£ 35,00	£ 9,00	£ 17,00	£ 25,00
TIBERIAS	£ 5,00	£ 12,75	£ 20,50	£ 10,00	£ 12,30	£ 14,60	£ 5,00	£ 11,50	£ 18,00
HAIFA	£ 10,00	£ 25,85	£ 41,70	£ 10,00	£ 17,50	£ 25,00	£ 9,50	£ 16,25	£ 23,00
JENIN	£ 10,00	£ 17,50	£ 25,00	£ 10,00	£ 13,00	£ 16,00	£ 9,50	£ 16,75	£ 24,00
NABLUS	£ 25,00	£ 25,00	£ 25,00	£ 22,00	£ 22,00	£ 22,00	£ 24,00	£ 24,00	£ 24,00
TULKARM	£ 10,30	£ 46,15	£ 82,00	£ 22,00	£ 22,00	£ 22,00	£ 10,00	£ 26,50	£ 43,00
HEBRON	£ 15,00	£ 19,00	£ 23,00	£ 15,00	£ 17,50	£ 20,00	£ 14,00	£ 18,00	£ 22,00
JERUSALEM	£ 18,00	£ 41,50	£ 65,00	£ 17,00	£ 41,00	£ 65,00	£ 17,00	£ 41,00	£ 65,00
RAMALLAH	£ 20,00	£ 22,00	£ 24,00	£ 24,00	£ 24,00	£ 24,00	£ 19,00	£ 21,00	£ 23,00
JAFFA	£ 41,00	£ 84,00	£ 127,00	£ 20,19	£ 20,19	£ 20,19	£ 59,00	£ 79,50	£ 100,00
RAMLA	£ 14,80	£ 53,40	£ 92,00	£ 24,00	£ 25,00	£ 26,00	£ 11,00	£ 49,00	£ 87,00
GAZA	£ 15,70	£ 33,60	£ 51,50	£ 15,70	£ 22,85	£ 30,00	£ 15,00	£ 24,00	£ 33,00
PALESTINE	£ 14,92	£ 31,09	£ 47,25	£ 15,33	£ 20,19	£ 25,05	£ 15,37	£ 26,55	£ 37,73

Source : UNSA DAG 13-3, UNCCP, in Michael R. Fischbach, *Records of Dispossession, 2003, p.270.*

APPENDIX 10: SCOPE OF URBAN LAND SIMULATION BY EXCLUDING PUBLIC LAND AND  
ROADS/RAILWAYS

Sub-District	Total Palestinian Urban Lands (in dunums)	Step 2 adjustment for land outside the armistice line (in dunums)	Step 3 adjustment ratios for land still in Israel after the war	Total urban land lost by Palestinians in 1948 after adjustments of Step 2 and 3
ACRE	1,200	1,200	**	13
BEISAN	561	561	0%*	561
NAZARETH	4,410	4,410	**	12
SAFAD	998	998	8.09%	917
TIBERIAS	552	552	22.39%	428
HAIFA	13,212	13,212	30.79%	9,144
JENIN	915			
NABLUS	4,881			
TULKARM	1,494			
HEBRON	2,436			
JERUSALEM	12,740	12,740	4.35%	12,186
RAMALLAH	2,397			
JAFFA	12,875	12,875	0%*	12,875
RAMLA	4,628	4,628	0%*	4,628
GAZA	10,951			
BEERSEHBA	1,531	1,531	0%*	1,531
<b>TOTAL</b>	<b>75,781</b>	<b>52,707</b>	<b>52,707</b>	<b>42,296</b>

## APPENDIX 11: BUILT-UP AREA RATIO ACCORDING TO ATIF KUBURSI'S APPROACH\*

Urban Area	Urban land Area (Dunums)	Building Area (Dunums)	% of built-up urban areas
Acre	1 479*	266	17.99%
Beisan	590	72	12.20%
Nazareth	4 585	310	6.76%
Safad	1 053	191	18.14%
Tiberias	611	127	20.79%
Haifa	15 421*	1 490	9.66%
Jerusalem	10 798	1 043	9.66%
Jaffa	9 683	1 035	10.69%
Ramle	1 569	81	5.16%
Lydda	3 210	167	5.20%
Beersheba	3 256	169	5.19%
Tel Aviv	1 970	190	9.64%
Majdal	1 146	282	24.61%
Shafa Amr	304	45	14.80%
<b>TOTAL</b>	<b>55 675</b>	<b>5 468</b>	<b>9.82%</b>

Source: The data for this table is extracted from Atif Kubursi's "Palestinian Rights and Losses in 1948" Table 20-8, page 176. The ratio is calculated by dividing urban area by building area.

\* Please note that we have noted a discrepancy between the table page 176 and the Appendix XI from which it's derived. This table presents corrected values, and the rest of the report is also corrected accordingly.

APPENDIX 12: HOLY PLACES

Please attached the table extracted from Sanctity Denied and compiling the list of destroyed holy places. The following abbreviation table has been used:

<b>(SS)</b>	Salman Abu Sitta
<b>(UN)</b>	UNCCP
<b>(GF)</b>	Ghazi Falah
<b>(NI)</b>	Al-Aqsa Foundation
<b>(SI)</b>	Al-Aqsa Association
<b>(JA)</b>	Jamil Arafat
<b>(HRA)</b>	HRA field research

REGION	PLACE NAME	MOSQUE	CHURCH	SOURCE OF DATA/INFORMATION
<b>HEBRON</b>	Al-Dawamiya	1	-	(SS)
	Beit Jibrin	1	1	Mosque (GF) (SS),Church (SS)
	Tel al-Safi	1	-	(SI) (SS)
	Zakariya	1	-	(GF) (SS)
	Zeita	1	-	(UN)
	<b>Total Hebron</b>		<b>5</b>	<b>1</b>
<b>JERUSALEM</b>	Ishwa'	1	-	(SS) (SI)
	Al-Burayj	1	-	(SS) (JA)
	Al-Jura	1	-	(GF)
	Al-Qabu	1	-	(GF)
	Al-Maliha	1	-	(SS) Meron Benevisti
	Beit Mahsir	1	-	(UN) (SS)
	Deir al-Sheikh	1	-	(JA)
	Deir Rafat	1	-	(JA)
	Sar'a	1	-	(SI)
	Arm	1	-	(UN)
	Allar	1	-	(UN)
	Ein Shams	1	-	(SI)
	Ein Karim	1	-	(HRA) (GF) (SS)
	Lift	1	-	(GF) (JA) (SS)
<b>Total Jerusalem</b>		<b>14</b>	<b>0</b>	
<b>NAZARETH</b>	Al-Mujaydil	1	2	(SS) and (UN) have one church/one mosque, (JA) has second church
	Um Qabi'	1	-	(NI)
	Andnra	1	-	(UN)
	Jabata	1	-	(NI)
	Saffuriya	1	2	(SS) has two churches and mosque
	Ma'lul	1	2	(UN) (GF) have one church and one mosque, (SS) has one church
<b>Total Nazareth</b>		<b>6</b>	<b>6</b>	
<b>BIR AL-SEBA'</b>	City of Bir al-Seba'	<b>2</b>	-	One mosque (UN) (SS), Second (SI)
<b>BAYSAN</b>	Al-Bira	1	-	(SS)
	Marsus	1	-	(UN)
	Al-Mazar	1	-	(NI)
	City of Baysan	1	-	(UN) (SS) (NI)
	Jisr al-Mujam'	1	-	(NI)
	Sirin	1	2	Two churches and mosque (JA),Mosque (NI),One church (SS)
	Shata	1	-	(UN) (NI)
	Qumiya	1	-	(UN) (NI)

REGION	PLACE NAME	MOSQUE	CHURCH	SOURCE OF DATA/INFORMATION
	Kawkab al-Hawa	1	-	(UN) (NI) (SS)
	Yuhla	1	-	(SS)
	<b>Total Baysan</b>	<b>10</b>	<b>2</b>	
<b>JENIN</b>	Al-Lajun	1	-	(UN) and Meron Benevisti
	Al-Mazar	1	-	(JA) (UN) (SS)
	Zir'in	1	-	(JA) (UN) (SS)
	Nuris	1	-	(JA) (SS)
	<b>Total Jenin</b>	<b>4</b>	<b>0</b>	
<b>HAIFA</b>	Ibrin	1	-	(NI)
	Abu Shusha	1	-	(NI) (JA)
	Ijzim	1	-	(SS) (GF) (NI)
	Al-Burj	1	-	(NI)
	Al-Brikiya	1	-	(NI)
	Al-Harithiya	1	-	(NI)
	Al-Daliya	1	-	(NI)
	Al-Rihaniya	1	-	(NI)
	Al-Sindiya	1	-	(JA) (NI) (SS)
	Al-Sheikh Burik	1	-	(NI)
	Al-Tantura	1	-	(JA) (SS) (NI)
	Al-Tira	1	-	(SS)
	Al-`Ubeya al-Tahra	1	-	(GF)
	Al-Kafirin	1	-	(UN) (NI) (SS)
	Al-Mazar	1	-	(SS) (NI)
	Al-Mansiya	2	-	Mosque (GF), Second (NI)
	Al-Yajur	1	-	(NI)
	Um al-Zeinat	1	-	Meron Benevisti
	Um al-Shuf	1	-	(SS) (NI)
	Um al-'Alk	1	-	(SI) (NI)
	Bira	1	-	(NI)
	Balad al-Sheikh	1	-	(UN) (NI)
	Jaba'	1	-	(NI)
	Jadru	1	-	(NI)
	J'ara	1	-	(NI)
	Hawasa al-Tahta	1	-	(NI)
	Khubaysa	1	-	(NI)
	Khirbar al-Sharkas	1	-	(NI)
	Sabarin	1	-	(JA) (SS)
	Sarafand	1	-	(NI) (JA) (SS)
	Abdun	1	-	(NI)
	Atlit	1	-	(NI)
	Arab al-Karabir	1	-	(NI)
	Arab al-Kasair	1	-	(NI)
	Ein Hud	1	-	(GF) (NI)
	Ein Ghazal	1	-	(JA) (NI)
	Qanir	1	-	(NI) (SS)
	Qira wa Qamun	1	-	(NI)
	Qasariya	2	-	Mosque (GF), Second (NI)
	Karkur	1	-	(NI)
	Kafr Lam	1	-	(JA) (SS) (NI)
	Husha	1	-	(JA) (NI)
	<b>Total Haifa</b>	<b>44</b>	<b>0</b>	

REGION	PLACE NAME	MOSQUE	CHURCH	SOURCE OF DATA/INFORMATION
RAMLE	Abu Shusha	1	-	(UN) (SS)
	Al-Biriya	1	-	(UN) (SS)
	Al-Qabab	1	-	(UN) (SS)
	Al-Latrun	1	-	(SI)
	Al-Muzavr'a	1	-	(SS) (SI)
	Al-Nabi Daniel	1	-	(SI)
	Al-N'ani	1	-	(SS) (UN)
	Beit Jamal	1	-	(SI)
	Beit Jiz	1	-	(SI)
	Beit Dajan	1	-	(UN)
	Beit Nabala	1	-	(UN) (SS)
	Bir Ma'in	1	-	(SI) (SS) (UN)
	Khalda	1	-	(SI)
	Zarnuqa	1	-	(SI)
	Sarai al-Kharab	1	-	(UN) (SS)
	Sarafand al-'Amar	1	-	(SS)
	Anaba	1	-	(UN) (SS)
	Qula	2	-	Mosque (SI), Second (SS)
	Wadi Hunayn	1	-	(GF) Meron Benevisti
	Yibna	2	-	Mosque (UN) (GF) (SS), Second (SI)
	<b>Total Ramle</b>	<b>22</b>	<b>0</b>	
SAFAD	Al-buwayziya	1	-	(NI)
	Al-Ja'una	1	-	(UN) (JA) (NI)
	Al-Jish	1	-	(NI)
	Al-Khalisa	1	-	(GF) (SI) (SS) (NI)
	Al-Dawara	1	-	(NI) (SS)
	Al-Zawiya	1	-	(NI)
	Al-Sumayriya	1	-	(NI) (SS)
	Al-Saliba	1	-	(NI)
	al-'Ulmaniya	1	-	(NI)
	Al-Malikiya	1	-	(NI)
	Al-Na'ima	-	1	(NI)
	Al-Nabi Rubin	1	-	(JA)
	Biriya	1	-	(NI)
	Tulayl	1	-	(NI) (SS)
	Jahula	1	-	(NI)
	Dalara	1	-	(JA)
	Dayshum	1	-	(NI)
	Ra' al-Ahmar	1	-	(NI)
	Sa'sa'	1	-	(JA)
	Saliha	2	-	Mosque (UN), Second (NI)
	Safsaf	1	-	(NI)
	Akbara	1	-	(UN)
	Alma	1	-	(NI)
	Amuka	1	-	(NI)
	Ein al-Zeitun	1	-	(SS) (NI)
	Fara	1	-	(NI)
	Faradiya	1	-	(JA) (NI)
	Fir'im	1	-	(NI)
	Qabba'a	1	-	(NI)
	Qadita	1	-	(JA)

REGION	PLACE NAME	MOSQUE	CHURCH	SOURCE OF DATA/INFORMATION
	Kafr Bir'im	-	1	(GF)
	City of Safad	8	-	(UN)
	Mughar al-Kheit	1	-	(JA) (NI)
	Muniya Hisham	1	-	(JA)
	Hunein	2	-	(SS) (NI)
	<b>Total Safad</b>	<b>42</b>	<b>2</b>	
<b>TIBERIAS</b>	Al-Hadarha	1	-	(JA)
	Al-Hamma	1	-	(JA) (GF)
	Al-Shajara	1	1	Both (UN), Mosque (NI)
	Al-Tibigha	-	1	(GF) (SS)
	al-'Ubeidiya	1	-	(UN)
	Hitin	1	-	(UN) (GF)
	Samakh	1	-	(SS) (JA) (UN)
	Awlam	1	-	(JA) (SS)
	Kafr Sabr	1	-	(JA) (UN)
	Lubya	1	-	(JA) (UN)
	City of Tiberias	4	-	(UN) has 2, (SS) has 4
	Ma'dhar	1	-	(JA) (UN)
	<b>Total Tiberias</b>	<b>14</b>	<b>2</b>	
<b>TULKAREM</b>	Um Khalid	1	-	(UN) (SS)
	Kharish	1	-	(SI)
	Qamum	1	-	(SI) (SS)
	Kafr Saba	1	-	(SS) L Derfner
	Miska	1	-	(GF) (SS)
	Wadi al-Hawarith	1	-	(SI)
	<b>Total Tulkarem</b>	<b>6</b>	<b>0</b>	
<b>ACRE</b>	Iqrit	-	1	(GF) (NI)
	Al-Birwe	1	1	Church (UN), Mosque (SS) (NI)
	Al-Bassa	2	2	Mosque (UN) (NI), Second Mosque (SS), Churches (SS) (HRA) (NI)
	Al-Dammun	1	-	(SS) (JA) (NI)
	Al-Ruways	1	-	(NI)
	Al-Zib	1	-	(UN) (GF) (SS) (NI) (HRA)
	Al-Smiriya	1	-	(GF) (HRA) (NI)
	Al-Ghabisiya	1	-	(GF) (SS) (HRA) (NI)
	Al-Kabri	1	-	(JA) (NI)
	Al-Manshiya	1	-	(HRA)
	Al-Mansura	-	1	(JA)
	Al-Nabi Rubin	1	-	(SI) (JA)
	Um al-Faraj	1	-	(GF) (SS) (NI)
	Tarbikha	2	-	Both (NI)
	Deir al-Qasi	3	-	All (NI)
	Suhmata	1	1	Both (SS), Church (HRA), Mosque (NI)
	Amqa	1	-	(GF) (SI) (SS) (NI)
	Kafr `Anan	2	-	Mosque (GF), Second (NI)
	Kuwaykar	1	-	(NI) and the committee of the uprooted
	Mi'ar	1	-	(SS) (JA) (NI)
	<b>Total Acre</b>	<b>23</b>	<b>6</b>	
<b>GAZA</b>	Asdud	1	-	(UN) (GF)
	Al-Faluja	1	-	(UN) (GF)
	Al-Muharaqa	1	-	(SS)
	Bira Bira	1	-	(UN) (SS)

REGION	PLACE NAME	MOSQUE	CHURCH	SOURCE OF DATA/INFORMATION
	Burayr	1	-	(UN) (SS)
	Beit Jirja	1	-	(SS)
	Beit Tima	1	-	(SS)
	Beit `Affa	1	-	(SS)
	Julis	1	-	(UN) (SS)
	Hulayqar	1	-	(SS)
	Hamama	1	-	(UN)
	Deir Sunayd	1	-	(SS)
	Simsim	1	-	(SS)
	Asqalan	1	-	(UN)
	Karatiya	1	-	(SS) (GF)
	Kawfakha	1	-	(SS) (GF)
	Ni'ilva	1	-	(UN)
	Hiribya	1	-	(GF) (SS)
	<b>Total Gaza</b>	<b>18</b>	<b>0</b>	
<b>JAFFA</b>	Al-Haram	1	-	(UN) (SS)
	Al-Khairiya	1	-	(SS) (SI)
	Al-Saqiya	1	-	(SS) (SI)
	Al-Sawalima	1	-	(GF) (SS)
	Al-'Abasiya	1	-	(HRA) (SS) (GF) (UN)
	Beit Dajan	1	-	(UN) (SS)
	Al-Nabi Rubin	2	-	(HRA) (UN)
	Kafr `Ana	1	-	(SS) (SI)
	Yasur	1	-	(SI) (SS)
	<b>Total Jaffa</b>	<b>10</b>	<b>0</b>	
<b>MIXED CITIES</b>	City of Ramle	1	-	(HRA)
	City of Jaffa	16	-	(UN)
	City of Haifa	1	-	(SS)
	City of Lid	5	-	(UN)
	City of Acre	4	-	(HRA)
	<b>Total mixed cities</b>	<b>27</b>	<b>0</b>	

## GENERAL BIBLIOGRAPHY

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### INTERNATIONAL VALUATION STANDARDS

Handbook of international auditing, assurance and ethics pronouncements, IFAC 2004 (Detailed valuation, auditing and assurance standards)

### INTERNAL DOCUMENTS AND MEMORANDUM

Thierry J. Sénéchal, "Phase 1 Report: Review of Past Estimates", 25 November 2004 (Content: Overview of scope, strengths and weaknesses of past estimates)

Thierry J. Sénéchal, "Phase 1 Report: Review of Past Estimates", 19 February 2005 (Content: Overview of scope, strengths and weaknesses of past estimates)

INDEVAL, "Phase 2: Methodology Draft 2 Phase II", 26 September 2005 (Content: Methodology outline for each SVP)

INDEVAL, "Draft MIS Global Estimate" version of 18 October 2005 (Content: Proposed outline of the MIS for reporting data and evaluation work)

Thierry J. Sénéchal, "Common Issues Note for Discussion", 12 July 2004 (Content: Global Estimate of the Palestinian Refugee Compensation Claim: Issues to Be Considered During our Telephone Call of 13 July 2004)

Thierry J. Sénéchal, "Debriefing note on NYC mission - Preliminary Phase", 23 August 2004 (Content: Minutes of meeting regarding the New York City mission)

Thierry J. Sénéchal, "Notes on Cyprus compensation model", 7 January 2005 (Content: Discussion of the "bond" mechanism to compensation for property losses)

Thierry J. Sénéchal, "Technical note on averaging of existing estimates", 30 March 2005 (Content: Study showing that the combination or average of two or more valuation methods would be more accurate than either of the individual method that make up the combination)

Leila Hilal, "NSU Memo", 5 August 2005 (Content: Comments on Methodology Note for discussion on August 8, 2005)

Thierry J. Sénéchal, "Memo #1 to NSU: INDEVAL answer to NSU memo dated 5 August 2005", 18 August 2005

Thierry J. Sénéchal, "Memo #2 to NSU: Request for additional information needed to conduct the valuations", 21 August 2005

Thierry J. Sénéchal, "Memo #3 to NSU: Upgrade of the R/P Forms database and forensic expertise assistance to review the existing system" 24 August 2005

Leila Hilal, "NSU Note to File: Meeting with Salim Tamari regarding SVP#7", 5 October 2005

Thierry J. Sénéchal, "Memo #4 to NSU: Scope of land to be included in the evaluation - First estimate", 20 October 2005

#### PAPERS AND BOOKS

Michael R. Fischbach, "The Usefulness of the UNCCP Archives for Palestinian Refugee Compensation/Restitution Claims", 2003

Michael R. Fischbach, "Survey of Documentation of Palestinian Refugee Property Losses, 2004 (Content: Overview of records containing valuable information on 1948 Palestinian refugee property losses in several types of settings in several different countries)

Benny Morris, *The Birth of the Palestinian Refugee Problem Revisited*, 2004

Salim Tamari and Elia Zureik, *Reinterpreting the Historical Record, Uses of Palestinian Refugee Archives for Social Science Research and Policy Analysis*, 2001

Whalid Khalidi, *All That Remains*, 1992

Michael R. Fischbach, *Records of Dispossession*, 2003 (Overview of the refugee issue)

Michael R. Fischbach, *The Peace Process and Palestinian Refugee Claims*, United States Institute of Peace Press, 2007.

V. W. Shaw, *A Survey of Palestine*, Vol. 1, 1991 (Detailed statistics about the type and scope of assets in pre war Palestine)

V. W. Shaw, *A Survey of Palestine*, Vol. 2, 1991 (Detailed statistics about the type and scope of assets in pre war Palestine)

V. W. Shaw, *A Survey of Palestine*, Supplement to Survey of Palestine, 1991 (Detailed statistics about the type and scope of assets in pre war Palestine)

P. J. Loftus, *National Income of Palestine in 1944*, 1946

*Village Statistics 1945*, The Research Centre

Justin McCarthy, *The Population of Palestine: Population Statistics of the Late Ottoman Period and the Mandate, 1990*

S. Abu Sitta, *Atlas of Palestine 1948*, 2004 (Very important source of information: population data at mid 1948, Jewish holdings at different points in time, public land data, Beersheba land and population data, infrastructure and public amenities, religious facilities, scope of land data)

“Sanctity Denied”, Arab Association for Human Rights (Scope of destruction of Arab and Christian holy places (See also Atlas of Palestine on this topic)

UNCCP, “Final Report of the United Nations Economic Survey Mission for the Middle-East” 1949

Elia Zureik, *Palestinian Refugees and the Peace Process*, 1996 (Population data and socio economic data for refugees on a country basis)

Ali Khalidi (Editor), *Palestinian refugees in Lebanon*, IPS, 2001

Atif Kubursi, “Valuing Palestinian Losses in Today's Dollars”

#### PAST ASSESSMENTS OF REFUGEES PROPERTY LOSSES

Global Estimate, UNCCP, 1951

Technical Programme, UNCCP, 1964

Johnson's Plan

Mr. Sayigh's Study (Chapter 3), Mr. SAYIGH, 1966

Sami Hadawi and Atif Kubursi, *Palestinian Rights And Losses in 1948*, 1988

Frank Lewis

# GLOSSARY

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<b>Capitalization</b>	Price changes over time result from specific and general effects of economic and social forces which need to be taken into account, i.e. when we want to account for changes in price levels and in the relative purchasing power of money between the time of war in 1948 and the present time.
<b>Dunum</b>	One dunum is equal to 1,000 square meters
<b>Field valuation sheet</b>	The working sheet of the taxation authority in urban areas which included the block and parcel number of the property, the owner or reputed owner, a description of the property whether land or building and, if the latter, a brief description of its nature. The sheet also showed the area and the values attributed to land and/or buildings in terms of gross and net annual value and date of valuation. It may be noted that the owner's name was included only to facilitate the collection of the tax and it was not uncommon for the names of one or more shareholders to be omitted.
<b>Immovable property</b>	This includes all types of land, rural and urban, whether privately, publicly or communally owned
<b>Net Annual Value</b>	The N.A.V is the rent for which a property might be expected to rent from year to year after deduction of the allowance for repairs (For vacant buildings, the N.A.V. is 6% of the capital value would the asset be sold on the open market).
<b>Net assets/equity</b>	Net assets/equity is the residual interest in the assets of the entity after deducting all its liabilities (depreciation, obsolescence...).
<b>Market value</b>	The market value of a property or an asset is a representation of its market-recognized utility rather than its purely physical status. The concept of market value reflects the collective perceptions and actions of a market and is the basis for valuing resources on the following basis: The estimated amount for which a property should exchange on the date of valuation between a willing buyer and a willing seller in an arm's-length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently, and without compulsion.
<b>Movable property</b>	This includes commodities and assets ranging from consumer durable to the tools and equipment of industry (and also including inventories and agricultural livestock).
<b>Fair value</b>	Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.
<b>Property</b>	The word "property", used without further qualification or identification, may refer to real property, personal property, or other type of property such as business or

financial interests, or a combination thereof.

**Register of deeds**

The Register recording details of transactions in «non-settled» land which include date of transaction, description of property, its boundaries and area, the names of the vendor and purchaser, the share sold and the consideration and encumbrances, if any. The Register was also used for recording details of ownership, etc., but was not of itself absolute proof of title. It also included lands, title to which was «settled» under the Ghor Modawwara Agreement.

**Register of title**

The Register recording title to about 5,000,000 dunums of lands settled under the Land (Settlement of Title) Ordinance which included the block and parcel number of the property concerned, the names of the owners and their shares, the area and description, and a note of any encumbrances. A separate folio was prepared for each parcel. The register also included the date of registration and the date of any transaction but not the consideration.

**Valuation approach**

Valuations of any type, whether undertaken on a market value basis or not, require one or more valuation approaches. The term “valuation approach” refers to generally accepted analytical methodologies that are in common use. It would usually include: determination and scope of ownership, cost elements, and income capitalization calculations.

## AUTHOR OF THE REPORT

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Thierry Sénéchal is an international expert in the field of valuation. Since 1992, he has focused his career entirely on investigative finance and the measurement of financial losses. He has diverse experience in commercial disputes, post-conflict compensation schemes related to loss of earnings, business interruption (including intangible assets), business valuation, financial governance and non-market valuation, i.e. environmental damage assessment. Over the past years, he provided expert advice for a host of internationally recognizable government and corporate clients, for international tribunals and organizations (LCIA, ICC, ICSID, UNCC), and for various regulatory bodies including United Nations, World Bank, French Prime Minister's Office and European Commission. He has also testified as an expert witness in various legal proceedings.

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