Richard B. Scott

Socio-Economic Aspects of Land Settlement In Helmand Valley, Afghanistan

by

Ghulam Farouq

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GHULAM FAROUQ

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GHULAM FAROUQ

Approved:

G. S. Chrysomelides

George S. Chrysomilides: Assistant Professor of Agricultural Economics. Advisor.

Ahmad K. Katanani

Ahmad A. Katanani: Assistant Professor of Agricultural Economics. Member of Committee.

MRRaza

M. Rafique Raza: Senior Lecturer in Rural Sociology. Member of Committee.

E E, Barnard Jr

Enos E. Barnard, Jr.: Associate Professor of Horticulture, and Coordinator of Graduate Studies.

Date of thesis defense: May 8, 1975.

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Gh. Farouq

Signature

May 8, 75

Date

LAND SETTLEMENT ASPECTS IN AFGHANISTAN

FAROUQ

AN ABSTRACT OF THE THESIS OF

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The main purpose of this study was to ascertain facts about the socio-economic aspects of land settlement in the Helmand Valley Project of Afghanistan and systemize these facts into a model to use as a guide-line for its future and further settlement.

In order to achieve the above objective, an intensive review of literature was done about land settlement in general and about the Middle East in particular. Then, four other major land settlement projects in selected Middle Eastern countries such as Nubian resettlement project under the Aswan High-Dam in Egypt, Al-Katrana and Al-Jafr land settlement projects in Jordan, and Al-Hayed land settlement project under the Euphrates dam in Syria were visited and studied. The aim of visiting these projects and undertaking surveys was to give the author clearer idea about what are the experience of other countries in this field ? What problems they faced and how did they overcome these problems.

Different methods of research were used in different projects: In Nubian resettlement project 12 questionnaires were applied to 12 group of settlers in 6 different villages; in Al-Katrana and Al-Jafr 10% and in Helmand Valley project 2.5% of the total settled population was interviewed. Since actual settlement has not taken place yet in the Al-Hayed project in Syria, a similar survey here as done in other projects was not possible. The questionnaires of each project were tabulated and related information accumulated from literature, personal contacts and observations were added in the form of reports under the following headings: Objectives, farm size, family size, agricultural experience, dwellings, public services, selection of settlers, economic sphere, social sphere and adaptation. Appropriate conclusions are made for each project.

In the light of the above comprehensive comparative study the appropriate land settlement model and recommendations were made to the Helmand-Arghandab Valley Authority (HAVA).

TABLE OF CONTENTS

Page

LIST OF TABLES

LIST OF FIGURES

I. INTRODUCTION

The history of land settlement is as old as the history of mankind and is the result of natural or man-made disasters; pull or push factors or other political and socio-economic arrangements in the society.

Land settlement as part of the land reform provides a flexible and progressive framework for human activities which will assure a new deal for the men on the land.

Most of the less developed nations are dependent on agriculture. The majority of the population is involved in this sector and agriculture preserves a significant figure in the whole national economy; but still foodstuff in these countries is falling badly behind the growing demand from rapidly rising population, due to ineffective agricultural resources and as well as their misallocation. Land settlement is one of the major and effective means to overcome the above problems.

Afghanistan is not an exception to these problems. In the process of rural development the country has considered land settlement as a significant step to overcome some of these problems since long ago. Now there are numerous small and large land settlement projects in different parts of the country.

Helmand Valley Project is one of these which is the focus of the present study. Though the project started in 1938, its present organization and the form of its operation was established in 1946.

The Helmand Valley Project beside its agricultural development program for the area, has settled about 5,000 settler families on about 26,000 hectares of new reclaimed land and has the potential to settle more and more because of the availability of land and water. So, in view of its magnitude and scope, the process of land settlement in the project requires special attention.

Therefore, this study is devoted to ascertain facts about the socio-economic aspect of land settlement in Helmand Valley of Afghanistan, and systematize these facts into a model and use it as a guideline for its future and further settlement.

Justification and purpose of the study

A new settlement provides many unusual opportunities to develop a new pattern of agricultural production and new economic basis for life. It also offers the chance to develop new social relationships and a new social structure. Above all, it provides the opportunity to capitalize on these opportunities adapted to the potentialities of the area as a whole.

Land settlement study in the Helmand Valley as a major land settlement project in South-west part of Afghanistan is necessary for the following reasons:

1. Preparing of new agricultural lands by Afghan authorities. Such new areas need the introduction of new population.

2. Landless farmers are in majority among the agricultural population and the government according to its land reform program has responsibility to solve their problems.

3. Large estates are in the hands of a few landlords who

are considered to perform no adequate economic function in the land use. So, these lands must be reclaimed.

4. To mitigate unemployment.

5. To utilize maximum agricultural resources.

6. To relieve the pressure in overpopulated rural areas.

7. To slow down rural-urban migration.

8. To achieve social justice.

9. To stabilize economic and political situations in the area.

10. Helmand Valley Project has already a land settlement program and is going to settle more because of the availability of cultivable land.

11. No such study has been done in this field so far. So, there is an obvious need for such a study.

To overcome the existing and future problems of the Helmand land settlement project on one hand, and to utilize properly the project resources on the other, it is necessary to pay more attention to this subject. The purpose of this study is to develop a model of land settlement for Helmand Valley Project which could be utilized for future land settlement.

Statement of the problem

Different definitions have been given to land settlement. For example,

> ".... settlement means the fixation of nomadic, semi-nomadic or landless people, a better distribution of rural population, a remedy for town overcrowding, a wiser use of land and water, greater respect for natural resources,

> higher living conditions, the achievement of individual and community welfare and political and social stability" (Bologna, 1957, p 8).

".... land settlement is the development of viable communities on new or unused land through the introduction of people" (UN, 1966, p 1).

> "Land settlement is an agrarian reform program particularly designed to relive the pressure in over populated areas and promote a more homogeneous distribution of land and labor" (Jacoby, 1971, p 257).

In general, then, land settlement is the introduction of new people to new or unused land in order to maximize resource utilization and improve the living conditions of settlers which in turn may help the stability and development of the whole society.

The reasons behind the undertaking and executing settlement projects vary from country to country. For example, in some countries the purpose of land settlement was to mitigate population pressure on one sector of the economy or on one specific geographical place (Indonesian case). Some other countries have used land settlement as a stage in land reform to raise the standard living of the rural population, cause more equal distribution of national income and to develop a stronger class of small and medium farmers (Ecuador case). Others have undertaken it to combat the effect of drought (Brazil case); or as a means of winning popular support for the state (like the Philippines, Thailand and British Guiana); or for political and ideological purposes like in Iran to prevent communism and win popular support for the present state power. Others have used land settlement as a mean for the prevention of migration from rural areas to urban

areas (some Egyptian cases). In some Arab countries land settlement was undertaken to sedenterize nomadic population, as well as for the reduction of unemployment, or to facilitate the diversification of agriculture (UN, 1966, pp 1-2).

II. REVIEW OF LITERATURE

Introduction

Since land settlement provides opportunities for maximum utilization of agricultural resources and helps community development, it is necessary to see what are the experiences of other countries in this field, what problems they faced and how did they overcome these problems ? This chapter discusses land settlement in general; here, the United Nations reports were of great help because of their extensive studies in this field and the degree of objectivity in reporting these studies as compared to the domestic ones.

Types of land settlement

Settlement can be the result of natural or man-made disasters, directly or indirectly. Floods and earthquakes are examples of natural disasters, while war, invasion, socio-economic and political dissatisfaction could be stated as examples for man-made disasters. In both cases, settlement becomes necessary. Generally, there are three kinds of land settlement.

Forced land settlement

Here, a group of people are forced to move from one place to another due to natural or man-made disasters. They are either in the form of refugees or a group of people who are forced to move and settle in new projects in order to receive a better life, like in the resettlement of Nubians in Upper Egypt.

In each of the above instances, settlers are provided with nearly all necessities by the project authorities; the settlers in turn do as the project authorities advise (Hassuna, 1972, p 4).

Spontaneous land settlement

Here, individuals or a group of people are making efforts to find new places for a better life-style. The decisions for such acts depend on their own individual initiative and responsibility without official support or compulsion. Undertaking such an act (decision) is based on "push", "pull" and "intervening" factors. Deprivation, stress, constraints, as well as aspiration and other pressures in the old areas are "push" factors; while main "pull" factors are: i) superior opportunities for employment and desired occupation; ii) more opportunity to achieve higher income, and iii) good living conditions and congenial environment. "Intervening" factors mainly refer to distance, cost of transportation, and social separation.

In spontaneous land settlement, the settler owns the main responsibility towards managing his life without major government help (U.N., 1966, p 1; Lee, 1966, p 57).

Planned land settlement

The third kind of land settlement is the combination of the above-mentioned types. Here, the settler is not totally dependent on the government, but both settlers and government take part and formulate some guiding principles in overcoming problems. The objective of the third model usually includes a varying degree of intended socio-economic change to which settlers will be subjected (Hassuna, 1972, p 5).

Preparation of the settlement project

Social survey of the departure area

In a case when an entire population is being moved, the authorities need reliable information on the population concerned as a basis for their settlement policy. Surveys designed to elicit such information should inquire into the following areas:

1. The demographic structure and its components, such as size of population, number and size of household, age structure, and geographic mobility.

2. The economic structure and its components such as the main production factors, quality of available manpower, types of professions and prevalent employment, level of technical skill of population.

3. The social structure and its components such as family, household and village structure, settlement pattern and types of dwellings, social groups and relations between groups, actual and potential local leaders, established institutions such as religious and educational systems; new institutions, such as land reform and cooperatives.

4. The current level of social and economic services in the field of education, health and other government services, economic services, communications and transport systems and any other services available within the area of departure.

5. The degree of previous contact with the outside world through visits outside the area, radio-listening and reading, to ascertain the "mental horizon" of the population.

6. The attitude and expectations of the population, especially

the reaction of the population towards the settlement project.

1.7. The political factors that may affect the personal and other relationships of the displaced population which, in turn, may affect community stability (U.N., 1966, pp 13-14).

Land survey in the area of arrival

Land settlement must be preceeded by an extensive preliminary survey of the natural resources and conditions of the arrival area. Such a survey provides valuable information for agricultural development, water and drainage courses and the health situation, which are basic requirements for successful farming.

As Binns (1951, p 4) stated,

> "the proper criteria was not whether land was intrinsically 'good' or 'bad', but whether under the conditions of the time, it will yield a satisfactory income to the farmer and whether these conditions, including the current fertility of the land and the marketing of its produce, will be maintainable long enough to justify the expenditure of capital on its exploitation."

Water availability and its utilization is an important consideration. Elevation, slope, and general configuration of the land may be of almost equal importance as the composition and depth of the soil and subsoil.

The following points should be considered, in this order, in a settlement project:

1. Rainfall situation in the area;
2. Temperature range during the year;
3. Kinds of plants growing in the area;
4. Season situation and its length;

5. Natural defects in the soil;

6. Understanding of water and related conditions such as availability, drainage, flood and so on;

7. For what crops the land is suitable;

8. Understanding of difficulties raised by men or animal diseases, wild animals' threat to settlers, their crops or stocks, or unfriendly behavior of the surrounding population with settlers which may adversely affect the continuation of life for settlers or the development of their agriculture in the area;

9. Availability of communication and transportation to, from, and within the area where settlers live.

So, land survey must generally include; i) quality of the soil for crop production; ii) a survey of the new area from the health point of view; iii) socio-economic survey, and iv) climate and rain situation (Binns, 1951, pp 3-7).

Provisions

Before a settlement project is to be executed, some preparations are necessary. The amount of this preliminary work must be a matter for close deliberation and careful decision after considering the land and people who will occupy it and the resources available. The following points should be considered in this case (Binns, 1951, p 10; U.N., 1966, p 23):

1. Soil amendment and regeneration;
2. Land classification;
3. Land clearance;
4. Pest and disease control;

5. Main roads for transportation;

6. Establishment of schools for settlers' children;

7. Building public hospitals or health centers;

8. Providing public utilities such as electricity and drinking water supply;

9. Economic and technical assistance.

Planning of the project

When the stage of reconnaissance is completed, during which the prospective settlers and the new land have been surveyed, another stage should be followed carefully in which all aspects of the settlement project is in need of them. The decisions that are made in this stage will influence the life of settlers for generations to come.

The following steps should be considered during this stage:

Farm size

Consideration should be given to the size of the lot on which it is possible to support a family at a satisfactory level of living, regarding technical results of the soil, and present and future ability of the settler (Foster, 1971, p 12).

Type of farming practice

The authorities must acquaint the settlers with suitable crops and trees in the area, as they possess little knowledge of the new climate and other conditions. Otherwise, they will cultivate those plants they were accustomed to beforehand, possibly bringing on a dangerous situation in the new area (Bologna, 1957, p 27).

Land tenure

Once the settlement authorities have worked out a system of land use and farm size which is technically, economically and socially feasible, the problem remains: how to guarantee that these consciously created optimum conditions will persist (Taha, 1971, pp 58-59) ?

Measures to prevent land fragmentation and speculation

Laws and regulations should be provided and maintained to prevent land fragmentation due to inheritance and land speculation due to economic reasons.

Physical planning

This refers to the location of the houses. Four main systems of locating houses in relation to their respective lots can be distinguished:

Scattered or isolated type: In this system houses are located right on the farms where the farmers feel them to be most suitable (Nelson, 1955, pp 51-54).

Linear type: Here, the houses are built along the road, usually facing the lots (U.N., 1966, p 40).

The two systems above offer the advantages of accessibility to the lots, thus minimizing the time spent in travelling. Their disadvantages are high cost of electrification, water supply and other utilities.

Concentric type: The third type groups houses in small compact villages with lots at distances usually not exceeding five kilometers.

The practical advantage of this system is said to be the reduction in cost of electrization, water supply and other utilities. The disadvantage of this type is the lessened accessibility to the lots (Nelson, 1955, pp 54-56).

Circle type: Here, the houses are built around a circle connected to their plots.

This system has the advantages of both the linear and the concentric type. But it is not applicable everywhere in view of differences in topographical conditions (Nazzan, 1971, p 3 and pp 32-36; Nelson, 1955, pp 67-68).

Selection of settlers

A careful selection of settlers is an important guarantee towards the success of the project. Since each society is composed of different kinds of people, all of which are not equally able to fulfill the aims of the project, it is necessary for the project authorities to select those settlers capable of giving positive answers to the project's objectives (Bologna, 1957, p 19).

Criteria for the selection of the settlers

No concrete criteria for the selection of the settlers is available which would be applicable in all parts of the world. They vary from country to country, even from one land settlement project to another in the same country. It depends on the type of land settlement and the objectives which the project authorities want to achieve.

However, there are certain criteria which are widely shared by many projects in different countries which ensure selection of the

prospective settlers. The most common are the following:

1. The candidate should have the nationality of the country in which the project is located.

2. The candidate should be capable of running the holding. Here, age, health are under consideration.

3. The candidate should possess former farming experience.

4. The candidate should not be holding any tenancy in any part of the country and should make a deposition to this effect.

5. Priority should be given to those supporting large families.

6. Candidates should be dependent of agriculture as means of subsistence.

7. No candidate should be awarded more than one tenancy.

8. The candidate should not dispose of his holding by resignation, sale, mortgage or gift.

9. The candidate should agree to the terms of the lease (Taha, 1971, pp 28-29).

Installation and continuation

When land settlement is by individual efforts, the inflow of settlers is usually spread over a long period of time and arrangements for the reception of the settlers will usually be relatively few and simple; If, however, there are to be concerted and planned migrations of a large number of persons, it is highly desirable that suitable arrangements should be made. Such arrangements may be quite complicated and expensive (Binns, 1951, p 13). For example, resettlement of about 50,000 Egyptian Nubians cost more than thirty-five million Egyptian Pounds, i.e. about 59.50 million dollars (Salah El Abd, 1971, p 26).

Installation

With the arrival of the settlers in the settlement areas, a new phase in the settlement process starts: installation of the individual settler and his family, and development of the settlement as a whole. The arrangements for the reception of the settlers first involve decisions concerning the housing and nutrition of the settlers during the period immediately following arrival. Soon, however, work will start on the distribution and demarcation of farm plots, construction of permanent houses, organization of basic services such as the provision of consumer goods, agricultural material and equipment, additional training of farmers through agricultural extension.

The installation of the individual settler can be considered as completed as soon as the individual farms are sufficiently developed to ensure the subsistence of the workers engaged on the farms and their families. At this point, activities should continue to be directed towards further development of each farm as an economic and social unit (U.N., 1966, p 46).

Continuation

Certain areas of activity of the life of the individual settler and his community will be discussed here which are very important for the continuation of the settlement project:

Laws

Rural settlement must be planned with a view to cover all national development. Long-term settlement projects require the careful observation of income trends in other sectors and should be adjusted as

early as possible. In order to prevent fragmentation, speculation and avoid other conflicts, regarding the land, between customary and statutory laws regarding ownership rights, jurists, economists and sociologists should study the situation together and make sociological and legal investigations in order to decide upon the best solution, taking into account the present socio-economic situation, power relationship, the religious situation and the needs of the country's agricultural development.

Education and Training

A land settlement program can only be effective if it activates all segments of the settler population: children, youth and adults, including women. Training and education must progress side by side with community development programs in order to train local leadership, which is very important. Such education and schools must have a special rural character and should not be factories producing 'white collar' employees; they must also change the old leadership. Finally, land settlement authorities must offer a proper training in the particular conditions of the environment, training personnel in management, cooperatives and accounting which are fundamental so as to continue progress (Bologna, 1957, p 26; Lambton, 1969, pp 350-353).

Stimulating the settler's participation

Here, the purpose is to stimulate people's participation in their community's betterment. One way to realize this end is to train them to work as a group through their membership in cooperative societies, farmer's unions or syndicates, and sharing in some decisions concerning

their affairs. Otherwise, they will feel that such organizations do not belong to them, since they take no part in initiating them (Hassuna, 1972, pp 15-16).

Provisions of some incentives

It is realized that settlers frequently do not possess capital adequate for their proper installation on their new farms, and that most of them will be unable, from their own resources, to finance subsequent improvement and development. So, they need help from outside; such help could be in the form of technical assistance, credit and subsidies, price stability, providing marketing, storage and processing facilities. The most effective incentive for a settler is to encourage the settler's love for his land; the sooner he gets his ownership title the better (F.A.O., 1967, pp 17-22; Binns, 1951, p 18).

Self-help and group action

For a settlement to be helped, its optimum role in the process of development, measures to promote its cohesiveness and to develop its capacity for self-help and cooperation must be carefully worked out and made an integral part of policy from the very start. Self-help and group action can be seen in various fields like land clearance; construction of houses; construction of unpaved roads, wells, simple irrigation and drainage canals; control of common pests; forming cooperative organizations; forming a communal land tenure system (Taha, 1971, p 27; F.A.O., 1953, p 5; Mosher, 1966, pp 153-157).

Emancipation

Many settlement agencies are faced with the problem of the

settlement projects relying on the services of the government, even long after the completion of the settlement project, which was functioning only on a temporary basis. Consideration should be given so as to speed up emancipation of the settlers by promoting group action in order to minimize their dependency on the government and project authorities (Taha, 1971, pp 57-58).

Agricultural cooperatives

One of the most important points, ignored in many land settlement projects, is working and bringing of new agricultural farms, which are distributed to settlers, under the cooperative. Cooperatives improve the economic and social life of settlers. But it requires a well equipped organization and management in which most underdeveloped countries are lacking experience. The success of cooperatives depends on the personality and efficiency of those in executive control. In order to manage and organize cooperatives properly, farmers should receive special cooperative training (Binns, 1951, p 17).

Organization

If the project is large enough, an independent agency must be established so as to form a link between the different government agencies, deal with all aspects of land settlement and handle the program properly and avoid conflicts or duplication of the settlement agencies's activities. Therefore, land settlement requires a special organization with necessary authority, possessing a qualified staff to coordinate and carry out the different services (Hagras, 1971, pp 7-16).

Integration of settlement projects into national objectives

Each settlement project must be a part of a national plan so as to be harmonious with the various sectors of the national economy. Otherwise, land settlement will be carried out as an isolated program, leading the project towards failure (Fahim, 1968, pp 2-6).

Community development program

Improving the life of settlers without a well-integrated community development program is very difficult. Settlers must not only be trained in agriculture. Handicrafts and small-scale industries should be also introduced to their families. Essential elements of technical knowledge must be taught through the educational programs of community development, to school-children, adolescents and adults. The essential purpose is not to get people to accept passively innovations, but to broaden their mental horizon, to develop eagerness to integrate new ideas, and ultimately to develop an attitude of discovery and experimentation. The crux of the matter here is not so much how startling the first "discovery" of "invention" would be to an outsider, but the simple fact of stimulating the settlers' mental processes so one day producing some discovery of great importance to economic production and their level of living. This "education towards change" can start at an early age, in primary school for example (U.N., 1966, p 81; Mosher, 1966, pp 159-160; Lambton, 1969, p 356).

III. MATERIALS AND METHODS

An intensive review of literature was done about land settlement in general and about the Middle East in particular, prior to undertaking field research for this study. Since this study includes two parts, the Middle East and the Helmand Valley of Afghanistan, different methods of investigation were used.

The Middle East

Review of land settlement in the Middle East in general, and particularly in Egypt, Jordan and Syria, is the theme of this part of the study. Due to certain limitations, such as time, administrative and financial problems, etc., the author was not able to conduct independent surveys in the concerned projects of these countries. Instead, up-to-date information mainly from secondary sources about the Nubian resettlement project in Egypt, Al-Qatrana and Al-Jafr land settlement projects in Jordan and the Al-Rayed pilot land settlement project in Syria was obtained, and was cross checked by an actual brief visit to the project areas and also to see whether there had been any significant changes. Personal observations and contacts with settlers, project officials and extension agents were also included in this part of the study.

The Nubian resettlement project in Egypt

The author mainly benefited from Fahim's[1] field survey reports

1. Hussein Fahim, Ph.D.; Anthropology, Research Associate, Social Research Center, American University in Cairo (AUC), Cairo, Egypt.

and his research on the Nubian resettlement project (NRP) in Upper Egypt, in Kom Ombo. Several studies done by the project authorities and the Social Research Center of the American University in Cairo (AUC) were also reviewed in order to give the author a clearer idea of the project. Then, a very brief questionnaire was prepared, in the light of this information, and applied in the field. Twelve questionnaires were filled in six different villages of Kom Ombo. The author brought together a group of settlers in each village during his stay there in December, 1973, and asked certain related questions (Appendix 25). This method of questioning gave the author ample opportunity to learn about the settlement situation from the settlers themselves.

The questionnaires were then tabulated and the information accumulated from literature, personal contacts and observation put together were integrated in the form of a report on the Nubian resettlement project (NRP) in Egypt.

Al-Katrana and Al-Jafr land settlement projects in Jordan

Two land settlement projects in Jordan, Al-Katrana and Al-Jafr, were included in this part of the study. Salah M. Yacoub[1] and Steeds[2] had made extensive field surveys and research concerning these two projects. The author took the most up-to-date of these surveys and reports and verified their statements by questioning ten percent of the settlers in each project (Appendix 26).

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1. Salah M. Yacoub, Ph.D.; Rural Sociology, Associate Professor of Rural Sociology, Faculty of Agricultural Sciences; American University of Beirut; Beirut, Lebanon.

2. D. Steeds; Economist, Natural Resources Authority; Amman, Jordan.

The Ministry of Agriculture and the Natural Resources Authority of the United Nations (UN/NRA) in Amman provided valuable information in the field. The writer's personal contact with responsible people in the Ministry of Agriculture, UN/NRA and project officials was of great help; especially his several-days stay in the schemes gave him valuable information about settlers and the project as a whole. All the data and information were organized in the form of a report like the one prepared for Nubian resettlement project in Egypt.

The Al-Hayed land settlement project in Syria

This study dealt with the Al-Hayed land settlement project in Syria. A separate governmental organization, the Ministry of the Euphrates Dam, was handling the project, and its social department has made valuable surveys of the project which were of great help to the author.

Since actual land distribution did not take place in the project until April 1974, there were no settlers to contact and question about their settlement affairs. Instead, the writer contacted, during his stay there in April 1974, various related department, project officials and workers, concerning the project and future plans. Moreover, valuable contacts were made with the Agriculture faculties at Damascus and Aleppo Universities, the Ministry of Planning and the Ministry of Agriculture and Agrarian Reform.

The collected information was organized in the same pattern as that of previous projects.

The Helmand Valley Project of Afghanistan

The preliminary plan and the first English draft of the schedule for the purpose of this study were prepared at the American University of Beirut in early June 1973. After translating the questionnaire into the Afghani language, Pashto, this schedule was pretested in the field in several different places of the Helmand project in Afghanistan. After pretesting this schedule was revised in Pashto (Appendix 27).

A separate and independent organization by the name of Helmand-Arghandab Valley Authority (HAVA) was handling this project. HAVA had settled 5,486 settler families from 1953 to March 1973 in seven different areas of the Helmand and Kandahar provinces. Five hundred and thirty-nine of these settler families were deprived from their settlement rights due to their non-ability and/or violation of HAVA settlement regulations.

Table 1 shows the total of settled families, the number of deprived families and the number of present valid settler families per area, living in Helmand and Kandahar (Figure 1).

In this study, Darweshan, Khanashin and Tarnak areas were not included, due to their distance factor, transportation difficulties, and shortage of time at the disposal of the writer. A 2.5% random sample from the total 4,231 settled families in the first four areas of the Helmand province, namely Nadi Ali, Marja, Shamalon and Grish, was drawn from official government lists of settlers, stratified by project area. The sample of 105 families was informed by HAVA extension personnel about this study and its purpose. They were interviewed at the fixed date and place chosen by extension agents and settlers in prior. A small alternate contingency sample list was also drawn from

Table 1. Area-distribution of families and their eligibility in HAVA.

Area	Province	Total No. of families per area	Total No. of deprived families per area	Qualified and present active families per area
Nadi Ali	Helmand	2,102	437	1,665
Marja	"	2,138	91	2,047
Shamalon	"	389	11	378
Grish	"	141		141
Derweshan	"	359		359
Khanashin	"	331		331
Tarnak	Kandahar	26		26
Total		5,486	539	4,947

the original list of settlers. This survey took place in Summer 1973.

Table 2. Sample size, usable schedules and percentage per area.

Area	Total No. of present active settled families per area	Sample size	Usable schedules	Percent of total
Nadi Ali	1,665	41	41	0.98
Marja	2,047	48	48	1.14
Shamalon	378	11	11	0.26
Grish	141	5	5	0.12
Total	4,231	105	105	2.50

The collected data were brought to Beirut, tabulated and personally analysed under the following headings: Farm size; family size; agricultural experience; dwellings; public services; economic sphere; social sphere and adaptation.

Through comparisons, some strong and weak points of the Helmand project were pointed out and recommendation made in accordance.

Limitations of the study

A general short-coming of the literature review is felt due to limited sources and literature about land settlement projects in the Middle East. Most of such studies were done in the West or by the western experts in the region, in which language, cultural orientation and other difficulties could have been the limiting factors. Moreover, such studies were not up to date. Some experts of the region have made such studies, but they are rare.

Bureaucratic difficulties constituted another factor affecting this study. Since Egypt, Jordan and Syria were directly involved in the Middle East conflict, the tour in these countries faced much trouble during a certain period as each step ahead sometimes necessitated special permission. Receiving such permission in a warfare situation was not easy and needed time, financing and patience. Again, officials in such situations were rarely frank and uninclined towards offering information.

Another major factor which added to the short-coming of this study was the time shortage. It would be of great value if the writer could see all the important projects in the area and stay there for a while, but due to the time limitation this was not practicable.

Financial shortage was another crucial factor which clearly

affected this study. A tour for scientific research and study in different countries obviously needs financial help which I was unfortunately lacking.

Transportation was another affecting factor. Completion of such a study is difficult, in fact impossible without good transportation facilities.

Obviously, the reliability of the data is a function of the accuracy of the settlers in estimating their yields, acreage, and other data; it also depends on their feeling free from fear and other psychological and social pressures. Since most of the settlers in the area were illiterate and unused to keeping records of their income and expenditures, they certainly made mistakes while answering the detailed questions. Moreover, giving true information without fear to a foreigner, especially in circumstances such as those endured by all settlers living in countries with martial law, was not easy. All such problems effect a scientific survey such as this one.

IV. RESULTS AND DISCUSSIONS

Introduction

This part of the study centers upon several land settlement projects in some Middle Eastern countries, namely Egypt, Jordan and Syria, and Afghanistan. Emphasis is put on the socio-economic aspect of the Nubian Resettlement Project in Egypt, Al-Katrana and Al-Jafr land settlement projects in Jordan, Al-Hayed Land Settlement Project in Syria and Land Settlement in Helmand Valley Project, Afghanistan.

Since the author has visited and studied these projects from near, his own observations and personal contacts are also included in this part.

Socio-economic aspect of the Nubian Resettlement Project, Egypt

Description of the area

Nubia is an ancient land following the Nile River from Aswan in Egypt to the north, to Kerowe in the Sudan to the south[1]. That part of Nubia lying between the first cataract at Aswan and the second cataract of Wadi Halfa, a distance of approximately 300 kilometers, is referred to as lower Nubia and is the subject of our study here.

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1. Nubia is no more. In May, 1964, the last of the village population was removed from Nubia in anticipation of the imminent flooding of the land through the construction of the High-Dam, Sad el-'Ali, at Aswan. The Egyptian Nubians were moved to Kom Ombo, approximately 50 kilometers north of Aswan (Figure 2).

Prior to their total relocation at Kom Ombo (1963-64), which was required by the high dam at Aswan, most of the Egyptian Nubians lived in isolated villages strung along both banks of the Nile between Aswan and Wadi Halfa. They were divided into three linguistic and sub-cultural zones namely Kunuz, Arabic, and Mahass. The traditional economic base was subsistence agriculture of dhurra, a sorghum grain, and date palms supplemented by animal husbandry.

Objectives

The objectives of the establishment of the Nubian Resettlement Project were as follows:

1. To improve the living standard of the Nubians;
2. To introduce Nubians to the new reclaimed lands under the Aswan High-Dam;
3. To resettle those who were displaced by the erection of the Aswan High-Dam.

Farm size

In keeping with the basic provisions of the Agrarian Reform Law of 1952, the land distributed ranged between two to five feddans (1 feddan = 1.038 acres), depending on the size of each household (El-Abd, 1971, p 28).

Family size

Average family size in Old Nubia at the time of departure to New Nubia was 3.3 persons (Department of Information, 1964, p 127) and no demographic survey was conducted afterwards to show the family composition.

Agricultural Experience

All Nubians who were settled in New Nubia had agricultural experience. Being an agricultural worker by profession was a prerequisite for the settlement of a Nubian settler.

Dwellings

The houses were built by the government for all settlers. They varied in size according to the size of the houses they owned before migration. The houses were built of cement and stones. A semi-concentric type of village exists in New Nubia. New Nubia has the shape of a crescent, with the town of Kom Ombo in the midule. The area of resettlement consisted of 43 villages and one administrative center which had 15,858 houses.

In response to Nubian demands, each village retained its old name with the word "new" in front (El Abd, 1971, pp 27-28).

Public services

The resettlement plan made several public services and utilities available to the settlers. For example, each village was to be provided with a mosque, a guest-house and a market area. For each group of four to five villages, the plan included the construction of a primary school, a mechanized bakery, a sports field, and a public health unit.

In 1971, the New Nubian settlement was provided with the following public services: post office; main roads connecting the settlement areas to the surrounding towns; railway and bus services; marketing centers; government supply offices; cooperative consumer stores; drinking water; central police department; elementary, secondary,

technical and teachers' training boarding-school; centers for youth recreational and educational activities; small clinics and a central hospital.

Criterion for the selection of settlers

The Nubian resettlement was a forced land settlement, which caused the compulsory movement of the entire population from Old Nubia to New Nubia. So there was no proper selection of settlers. The authorities were supposed to give irrigated land to the head of each household, even to those who had no land in Old Nubia, being agricultural workers by profession, but who had owned a house at the time of the 1960 census.

Economic sphere

Among the most obvious transformations wrought by Nubians in the new resettlement project is the appearance and even the structure of the mass-produced dwellings. The old way of decorating the houses was maintained but many other changes were brought about.

Less noticeable, but more costly, are interior structural alterations designed to separate human from animal quarters, to increase the enclosed area, and to organize the living area for greater efficiency and pleasure. Of particular importance to the Nubians is the enlargement of space for entertaining visitors. Such house remodeling is very costly.

Traditional means have also been used to cope with the problems of food supply. Nubian women have supplemented and diversified the family diet by buying chicks, lambs, and kids to replace mature livestock lost in transit. Another example of traditional response to the food

problem was the abandonement of the modern bakeries built in most districts. They were claiming that the cost of commercial bread was too high, its taste not favorable to them when compared to their Nubian durra bread. They used traditional food for ceremonial occasions. So the bakeries, at least temporarily, ceased operations.

Old Nubian patterns can also be seen in transportation. Donkey and hand carts and even used second-hand taxis have been purchased by the settlers to supplement the still inadequate public transportation.

Many other, more individual efforts at solving economic problems have also emerged. For example, some of the men who came from cities in the hope of receiving houses and finding jobs have now returned to their urban occupations, while others have managed to find work in the expanding labor market of Aswan province. A number of people have opened small shops in their homes, and a few have established restaurants or coffee-houses. Some women rent sleeping rooms to day-students attending the new secondary schools. This increase of ready cash through compensation payments has not been without negative consequences. While some people invested their extra money in gold jewelry, in postal savings in land, or in house improvements, others, particularly young men without jobs, have begun to gamble and drink for more than was typical in Old Nubia. Because of the return of migrants, the number of men in residence is higher than it was in Old Nubia. With little to do and little commitment to the new communities, they now pose difficult new problems of social control for the more responsible majority of Nubians.

The sudden vacuum created in the lives of the women has been of more widespread importance. The daily round of work completely absorbed

their energies in Old Nubia. But in the new communities, there is no need to carry water long distances from the river, less work to do in the fields and for the animals. Most of the traditional handicrafts cannot be pursued due to a lack of raw material, and the government handicraft program has not reached all the women.

Nubians are living close together than in Old Nubia; so, they can now visit their friends and relatives easily, previously separated from them by miles of desert and water. The potential for integration of this new closeness is, however, somewhat counteracted by the government policy of house assignment, which has resulted in a complete change of neighborhood composition.

Social patterns

In New Nubia, with distance no longer a barrier, the cultural norm of community-wide attendance has vastly increased the size of ceremonial occasions. Social boundaries within the settlement are also still in the process of being defined, but due to the ease of transportation and increased leisure time, participation even by people living miles away from the event is no longer unusual.

The scattering of kinsmen in the new settlement also created another problem. In Old Nubia, neighbors usually were kinsmen and as such were co-hosts at weddings and mourning ceremonies.

Moreover, changes can be seen in traditional Nubian ceremonial life, like weddings, mourning, feasts, and other Islamic ceremonies.

There have been numerous other minor changes in customs, all of which seem to have occurred without much conflict and which seem consonant with the practical and objective cultural outlook which most

observers have found characteristic of Nubians.

Adaptation to resettlement

During the first months following relocation, many observers were deeply concerned over the welfare of this population. The concern was not that Nubian families lacked sufficient money for their basic needs. Compensation payments, settling-in-allowance, and monthly support payments by the government, plus a dramatic increase in remittances from urban relatives, all helped to cushion the impact of transition from a partial dependence on crops and livestock to a total dependence on cash. The problem was more one of securing and distributing supplies. Nubians found food prices higher in New Nubia; the concentration of labor at the High Dam unquestionably forced the price of fresh food upwards and caused acute, if temporary, shortages of all kinds. Many Nubians were frightened by the rapid depletion of their cash reserves and their frequent inability to secure the usual components of their traditional diet. All of these difficulties caused a general feeling of disillusionment. Telegrams and letters of complaint flooded the desks of the responsible authorities who were struggling to get clinics, markets, and the transportation system into full operation.

One can though see a dramatic change in Nubia now. Many houses have been structurally remodelled and attractively decorated in traditional Nubian styles. Markets are in operation throughout the settlement. Buses move people back and forth daily between New Nubia, Kom Ombo, and Aswan. Many women are busy with handicrafts introduced by the Ministry of Social Affairs. Most of the people appear to have accepted their new way of existence as a normal way of life. Doctors

and nurses make medical care much more accessible than in Old Nubia; schools are also in good condition, and in about half of the area the government has provided each household with a freedom of land and water for cultivation. While these material improvements are of basic importance, the creativeness and initiative of the Nubians themselves have contributed greatly to the present state of stability and adjustment. The relevant factors may be high-lighted by comparing present adaptation in Kom Ombo with the related activities in Old Nubia.

Conclusion

The Nubian resettlement project is a well integrated and well planned project; education and training was understood as an important point by the project authorities. Elementary, secondary, technical and teachers' boarding schools, centers for youth recreation and educational activities were made available in each village.

Settlers' participation in decision-making was well realized by the project authorities. Local leaders, native teachers, Imams and other relevant people were taking part in the arrangement for their own affairs.

Marketing facilities, post offices, government supply centers, cooperatives, consumer stores, handicraft industries were the incentives provided to the settlers.

The existence of cooperatives indicates that settlers had practically realized self-help and group action; the availability of cooperatives, marketing, supply centers and handicraft facilities increases the emancipation of the settlers. Therefore, the settlers were not very dependent on government help.

At first the Ministry of Land Reform was in charge of reclaiming the new lands in Kom Ombo and Isna for the settlement of Nubians. But since 1964 the project has had an independent organization in order to better coordinate and manage its affairs and integrate the area into the national plan.

The existence of community development programs in the project was of great help to the success of the project, minimizing the problems of settlers, causing social change and earning of extra income to the settler families.

Socio-economic aspect of Al-Katrana Land Settlement Project, Jordan

Description of the area

Al-Katrana irrigated farming project is located about 90 kilometers South of Amman, Jordan's capital, on the desert highway to Ma'an(Fig. 3). The project has a net irrigable area of 1,000 dunums, about 100 hectares, and cultivation of a part of the area began during 1970-71. From this area 10 hectares were set aside as an experimental farm to test the suitability of various crops and for the training of settlers. The remaining 90 hectares are divided into 36 farm units, each comprising 2.5 hectares. According to Salah M. Yacoub[1], a total of 32 prospective settler candidates were then selected and brought to the project for training at three different intervals during 1970 and 1971.

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1. Salah M. Yacoub, A Socio-economic Survey of the Settler-candidates in Al-Katrana Irrigated Farming Pilot Project in East Jordan, 1972, FAS - AUB, Beirut. Mimeo Pamphlet No. 11.

Objectives

The main objectives in the execution of the Al-Qatrana land settlement project were:

1. To settle nomads and improve their life.
2. To utilize agricultural resources properly.

Farm size

The farm size in Al-Qatrana land settlement project was 25 dunums (2.5 hectares) for each settler family.

Family size

Settler families in Al-Qatrana project are extended and kinship ties are very strong among them. The average family size is 8 persons.

Agricultural experiences

Most of the settlers were engaged in agriculture before joining the Al-Qatrana scheme, either as farmers or as agricultural workers. Some sheep-owners were also among them.

Almost all of the settler candidates claimed that they had enough agricultural training, but some of them were unsatisfied, they wanted agricultural machinery training. There is no agricultural school for the settlers or their children.

Dwellings

Houses were constructed by settler candidates, three to five kilometers away from the farms. The houses were constructed in a disorderly village-type planning.

Public services

Since the settler candidates had not yet received their farms, there were no public services available.

Selection of settlers

At least two years of agricultural work in the project, as a paid laborer, by the candidate, before the actual settlement, was prerequisite. After passing the two years agricultural training period successfully, the settler received a farm unit, but for five more years he was under the strict supervision of the project authorities who were to see whether the settler handled his farm affairs properly. After passing this period successfully, he receives the full title of ownership.

Economic sphere

Almost all of the settlers complained about their present lower income, due to the presence of a stable and daily-type job providing them with a stable monthly income. But all of them were agreed that their income would increase once they received their farm units. When they were asked why, they gave several reasons:

- They will take good care of it and work very hard on it.
- Their family members will work with them and thus the production will increase.
- Government help will enable them to produce more.

They knew about cooperatives but they did not have it. They were willing to have it when they received the farm units. Most of them were helping each other in farming, informally, when they were in need.

The project authorities paid the candidates fifteen Jordanian

Dinars each per month. Most of those who were busy in agriculture before joining the scheme had less than J.D. 15 per month. But those who had sheep received about J.D. 15 or more. All of them had no land before or after they joined Al-Qatrana project.

Social sphere

The project was in its preliminary stage. Settler candidates were not sure that they would receive the farm units due to the settlement conditions, and therefore had not established themselves there.

Though their kinship ties were strong, when they were asked whether they would leave the project if their relatives left them, their answer was promising, saying that most of their relatives had already left and they could manage their life properly alone.

No schools for their children and other public facilities were available since the project was in its first stages.

Most of the settlers were in favor of the idea of letting female members of their families receive training in how to cook food for an improved diet; how to grow vegetables; how to raise chickens; how to take better care of their children; etc., especially if the trainer was a female and the training done right on the project. But some of them were refusing the idea because of their traditional beliefs.

When they were asked why they joined the scheme, most of them replied as follows:

- To find agricultural land.
- To make more money and thus improve their life.
- Nomadic life was a tiresone one, while an agricultural and

farming life was relatively more comfortable.

- Nomadic life was getting worse day by day economically and socially.
- Lack of education and health facilities in nomadic life were also the cause of joining the scheme.

Most of the settlers were encouraged by the government and/or their Sheikhs. Some candidates were encouraged by their families.

Adaptation

Since the settler candidates had not received their expected units of land yet, the question of adaptation did not arise.

However, settler candidates were happy and optimistic concerning their future life in the project. The reasons were:

- Most of the candidates were sedentary and had had agricultural experience before joining the scheme. So they did not have too many problems in adapting to the new environment as nomads have.
- Their present income was about the same as at the time before joining the Al-Qatrana project and expected to receive more income when they take over their farm units.
- Al-Qatrana project is located on the Amman - Ko'an highway. The settlers can market their farm products at the right time and at reasonable prices. In this respect also, they have a good future prospect.

However, lack of public services and community development programs caused them to face many difficulties.

Conclusion

The terms of settlement were clearly stated by the authorities, strictly implemented; no false expectations were allowed. It was a real step forward and must be maintained. But there were no clear regulations about their future of the settlers. For example, nobody knew the government policy about land fragmentation and speculation.

Education facilities nor for settlers, neither for their children, were available.

They could not participate in decision-making. For example, they were complaining that they were promised fifty dunums of irrigated land, but the authorities changed the plan suddenly without consulting them and reduced the size of the farm units to twenty-five dunums.

Since the project was on a small scale the Ministry of Agriculture was handling its affairs. So there was no need for a separate administrative organization to manage and coordinate its course.

Public services were not available, especially education, health, drinking water, etc.

Community development programs were totally absent. Since the farm units were not yet distributed, the questions of agricultural incentives like price stability, marketing, storage facilities, agricultural emancipation and group action in farm affairs did not arise.

Socio-economic aspect of Al-Jafr land Settlement Project, Jordan

Description of the area

Al-Jafr land settlement project is located in the heart of the southern desert of Jordan, about 225 kilometers to the south east of

Amman, Jordan's capital. The Howaitat tribe wanders across its plains on its way from the summer grazing lands in the western hills to their winter pastures in the vicinity of the Saudi Arabian border. Jafr is the transit station (Figure 3).

In 1962, the Central Water Authority drilled a deep well to supply the inhabitants and their animals with drinking water. The result of drilling was promising and stimulated further hydrological investigations. Sixteen wells were drilled, out of which thirteen were productive. In 1964, the Ministry of Agriculture signed an agreement with the World Food Program to obtain aid for establishing a pilot project for Bedouin Nomads settlement.

In 1973, while the author was visiting the Al-Jafr project, total area of the project was 250 hectares, divided into fifty units. Twenty-eight units were already distributed and owned by twenty-six settlers, who moved into the scheme and lived in the houses provided by the project authorities.

Objectives

The main objectives of the Al-Jafr land settlement were:

- To create an emergency feed reserve for livestock in the Southern Desert of Jordan to benefit from it during the drought years. It was also intended to conduct demonstrations on lamb fattening through supplemental feeding.
- Protection and enforcement of natural ranges.
- Expansion of soil reclamation activities in Jafr and in places where underground water is available.
- Settlement of Bedouin tribes in the reclaimed area.

Farm size

Each settler had fifty dunums of irrigated land, devoted to three major crops, namely, 25 dunums for alfalfa; 12.5 dunums for cereals and 12.5 dunums for vegetables annually. These major crops were mostly determined by the project authorities. This is why they had no fruit trees.

Family size

Family size of the Al-Jafr settlers were of the extended type, with strong kinship ties. Their family size in 1973 was about 8 persons.

Agricultural training and experience

Before joining the project, only eight of the settlers were employed in agriculture, the remainder being shepherds, students, etc., who had no farming experiences. Now they claim they know various agricultural practices. One extension agent, one agronomist and one agricultural machinery operator were working in the project, cooperating with the settlers. Application of the improved agricultural practices, such as using insecticides and animal manure were common among settlers. Chemical fertilizers had not yet been used on a large-scale basis. They felt further training in proper usage of insecticides and chemicals, usage of farm machinery and raising of fruit trees was needed.

No agricultural school and other regular training program in this field was available for settlers and their children.

Dwellings

The houses in Al-Jafr land settlement project are constructed by the government. They are uniform and located on the farms facing the

roads. It is a linear type of housing system.

Public services

About 200 families, in addition to those who had settled in the project, are living in the vicinity and built their own houses largely with the help of the authorities. Settlers and non-settlers both share the available services.

Several small groceries and bakeries exist in Al-Jafr, selling those commodities essential to the settler's every day life. The prices, of course, were relatively higher than in Ma'an city.

There were two schools for the settlers' children in the project, the first, an elementary school, for girls; the second, for boys, possessing both elementary and secondary sections.

Health services are partially provided to settlers and other Bedouins living in the area since the completion of a new clinic in 1973. A medical doctor from Ma'an visits the clinic once a week. Also, a branch office of the Jordan National Union, the sole political party in the country, has been opened in Al-Jafr.

The project still lacks a post office, a telephone service, a Jami' (central mosque) and an adult literacy programme. Moreover, settlers cannot get farm inputs and food and sell their farm products in the project area at reasonable prices. Such inputs and food commodities have to be bought and sold mostly in the city of Ma'an and occasionally in Amman.

Selection of settlers

The Bedouin Settlement Authority considered agricultural work

at the project by the Bedouins, before their actual settlement, as a basic prerequisite to the future successful settlement.

Bedouins from the Howaitat tribe were employed in the project and were paid J.D. 15 (J.D. 1 = $ 2.8) per month in cash as an incentive towards stabilization and acquisition of new skills. Their work experience in the project usually lasted two to four years during which they were screened; only the best were selected to become settlers. After this period, the settlers received their land nominally. They worked for five years on the farms before receiving actual ownership rights. They were treated as tenants. Their monthly wages during the period were reduced from J.D. 15 to J.D. 7.5 per month. After this trial period was over, settlers were eligible to purchase their units by paying the authorities J.D. 5 per dunum (a total of J.D. 250) and J.D. 275, one half of the total cost of housing units.

Economic sphere

Every settler was saying that their present income was much higher than their previous income before joining the scheme. Their present income was also much higher than the income which they received during the early years of the project, mainly due to their greater farming experiences. Nobody told me he was receiving income from outside.

Credit facilities were not available for Al-Jafr settlers and marketing was very poor. They were selling their crops several months before the harvest time at low prices. Those who had not sold their crops early had difficulties transporting them to Mo'an (about 50 kilometers from Al-Jafr) and selling it there.

No cooperative existed in Al-Jafr. Though some of them knew

what a cooperative meant and felt an urgent need for it; lack of trust among themselves and, to some extent, ignorance, were the main obstacles.

The majority of settlers in Al-Jafr project were keeping sheep and goats; on the whole, 700 to 800 sheep and goats were kept by the settlers. They needed instructions in improved sheep breeding, fattening and management under sedentary situations.

Social sphere

Nomads have very strong kinship ties generally. Settlers asked whether they would remain in the project if their sub tribe and kinship group decided to move away from the nearby area, gave positive answers. In a study conducted by Salah H. Yacoub[1] in 1968, though, about two thirds of the settlers complained that they were not near to their clan or sub-tribe. This change gives the idea that kinship ties are weakening among settlers.

Another remarkable change in the social way of life of the Bedouin is that the Howaitat tribe Bedouins, to whom the Al-Jafr project's settlers belong, prefer to settle in Al-Jafr or in another project. This was found by settlers in the project and by Bassam Nemri, Director General of the Bedouin Settlement Department in the Jordanian Ministry of Agriculture. He told the author that many applications were submitted to his department by Bedouins from various parts of the country, expressing the desire to settle. This change of attitude indicates that the Bedouins are ready to leave the nomadic way of life, if given the

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1. Salah H. Yacoub, 1969. A Sociological Evaluation of a Pilot Project for Bedouin Settlement: A Case Study. FAO-AUB Public. No. 40, pp 22-24.

better opportunity of settling.

Another change observed was that they were using kerosene stoves for cooking instead of wood. Radios, tape recorders and sewing machines were popular among them and about eleven persons had cars. Cars and sewing machines showed additional sources of income for some settler families.

Most of them were favorable towards the idea of letting the female members of their families receive training in better cooking food so as to improve their diet; in growing vegetables, raising chickens, taking care of their children, etc., especially if the trainers are female and the training is done right on the project. Some refused such training though, because of their traditional beliefs.

When they were asked why they had joined the scheme, most of them replied:

- To make more money and thus improve their life.
- To find agricultural land.
- The nomadic way of life was tiresome while an agricultural and farming life is relatively more comfortable and has a good future.
- Because of the lack of education and health facilities in nomadic life.

Most of them were encouraged by the government and/or by their Sheikhs. Some candidates were encouraged by their families, among others.

Adaptation

Several years earlier, settlers in Al-Jafr were totally dependent on the government to provide them with all that was needed to

cultivate their agricultural units. But now the situation has changed. They buy their own seeds, fertilizers, chemical sprays and boxes which they use for marketing; they pay for transportation costs of their produce. Only farm machinery such as tractors, alfalfa-bailing machines and insecticide sprayers were provided free of charge to all settlers by the project authorities.

The settlers were asked whether they would leave the project and quit farming if the government decided to withdraw their help. None of them answered that they would quit farming and leave the scheme. But all did agree that it would be a difficult time. Some of them also mentioned that, in such a case, they would start cooperatives to overcome the difficulties.

Conclusion

The project was facing some crucial social and economic problems which must be solved through government-settler efforts, if it is to survive.

One problem was related to the way the agricultural units in the projects were distributed. The settlers were not happy and believed that the method used by the government authorities was unjust and that there was a great deal of favoritism involved in the process.

Another problem, which may affect the future of the settlement project, is that those living in the surrounding area were jealous of the settlers, because of the relatively high income of settlers from their farms and the dependence of the surrounding families and their farm products; also, because of the government help and assistance to the settlers. Such a relationship, if continued, will contribute

eventually to the isolation of the settlers from the larger community and to the emergence of several social and psychological problems among them.

Although certain services were provided to the settlers, a post office, telephone service, drinking water, electricity, mosque, an adult literacy program, a small hospital and a shopping center were lacking.

A comprehensive law was lacking, necessary to regulate the settlers' present and future.

Education for settlers' children was available but they are still lacking agricultural training and adult education programs.

The settlers' participation in decision-making for the project affairs was apparently absent but project officials were always in touch with the settlers to get their ideas about certain problems. Such contact, of course, has its impact on the authorities' decisions about the project.

The project already suffered from offering too much to settlers in various fields of their settlement but still certain incentives were absent, namely, credit, price stability, storage, processing, sheep breeding and fattening, management facilities.

Settlers were helping each other in farming and other problems they had to face, but no formal organization existed for such purposes.

Emancipation was a crucial problem in the project. The settlers were, to a large extent, dependent on the government to provide them with their major farm needs. Fortunately, this attitude was gradually changing. The project authorities must speed up this change, in order

to prepare the settlers in managing their affairs by themselves without major government help. Such help withdrawal should be done gradually, in order to avoid conflicts.

Since the project is small, there was no separate administrative unit to handle the various affairs of the project. The Department of Agriculture of Ma'an, which is a branch of the Ministry of Agriculture of Jordan, was handling and supervising the project. The project was also connected with the Department of Settlement in the Ministry of Agriculture. So the Ministry of Agriculture was the responsible agency for this project organizing and coordinating its affairs.

Lack of a well-integrated community development program was a major deficiency of the project. Handicrafts, small industries and other community development program services are necessary in the project in order to train and engage the settler's family members. Such programs would be a source of income to the family and solve many other problems.

Al-Rayed Pilot Land Settlement Project, Syria

Description of the area

The Al-Rayed Land Settlement Project is located in the north east part of the Syrian Republic, irrigated by the Euphrates River. The Euphrates River flows from Turkey, crosses Syria and Iraq and pours at the Arabian Gulf.

The Al-Rayed pilot project is situated on the left bank of the Euphrates River with 16,000 hectares of land under cultivation. Due to the expandable capacity of the project, the Ministry of the Euphrates Dam plans to bring more land under cultivation in the future (Figure 4).

Objectives

The objectives of the project were as follows:

- To resettle those who were displaced by the water flood raised by the erection of the Euphrates Dam.
- To train leading personnel in agriculture and social fields.
- To find out the best ways of land utilization in order to transfer them to other parts of the project.
- To organize farmers in cooperative associations.
- To profitably use the Euphrates River water in agriculture.

Dwellings

Fifteen new villages were constructed with a total number of 6,768 houses for 39,200 people. The houses were in a village of a concentric type of planning surrounded by farms. Each family received two living rooms from the four-room building, with a separate kitchen and bathroom.

The villages varied in number of houses and acreage of the farm area attached to them.

Public services

Each village has the following facilities:

1. A social center, including a building for cinema and meetings; a building for a cooperative, an agricultural extension, a farmers' union, a clinic, irrigation and hydrology department, a mosque, a restaurant and a building for the Syrian Arab Socialist Party representative (the sole political party in the country).

2. An administrative center, including a police office.

3. A market which consists of five shops and a bakery.

4. Education. Each village has a school. Its classes range between 6 to 12 grades due to the size of the village population.

5. A park.

Conclusion

In 19[illegible], the Ministry of the Euphrates Dam was formed in order to organize all activities related to the Euphrates Dam and the project. The first irrigation project is being prepared by the government authorities in the Balikn basin, to the south of the Dam, in order to resettle those who were displaced by the erection of the Dam. But the leaders of the country suddenly changed the plan. The authorities gave this displaced population two choices: either they should settle in the northern part of the country, near the Turkish border, which has mainly non-irrigated land but a fair amount of rainfall; or they should try to manage their lives by themselves as well as they could.

As far as I understood, during my stay in the project (April, 974) the majority of the displaced population were not compensated. he authorities wanted to use a long-run plan for the project. This lan was still under consideration and not yet finalized; it was still sure as to what would be. Several ways and alternatives were under nsideration by the country's leaders:

- To make the whole project a state farm with the settlers working on it as wage workers;
- To give it to a government beneficial company to cultivate and market its produce.
- To distribute it to the settlers, granting the rights of

Table 3. Descriptions of Al-Rayed Land Settlement Pilot Project according to village distribution.

District	Village	Net irrigable farm land attached to each village, in hectares	The No. of houses in each village	The No. of settlers in each village	Schools
Kadi	Al-Undlus	900	330	1,900	6 grades primary school
Al-Faidh	Al-Rashid	1,100	404	2,340	6 grades primary school
	Al-Ansar	1,760	646	3,740	8 grades secondary school
	Ya'arab	1,140	398	2,300	6 grades primary school
	Al-Adnaniah	1,440	516	2,990	8 grades secondary school
Al	Al-Bahtaniah	1,350	514	2,980	8 grades secondary school
Salijiat	Rabi'a	1,415	500	2,900	8 grades secondary school
	Hatien	1,330	466	2,700	6 grades primary school
	Al-Asad	2,205	768	4,450	12 grades high school
	Badr	1,170	408	2,360	6 grades primary school
	Qadisia	1,125	396	2,300	6 grades primary school
Al Hamrat	Kadar	965	336	1,950	6 grades primary school
	Al-Mohammadia	1,120	310	2,260	6 grades primary school
	Al-Ghassania	975	340	1,900	6 grades primary school
	Al Swediantal Yamamieh	1,600	356	2,060	6 grades primary school
Total		19,600	6,768	39,200	

ownership of the land.

Up to early 1974, about 16,000 hectares of land were prepared and brought under cultivation by the government. The farmers are wage workers in the project. The area of new prepared land will reach 19,600 hectares at the end of 1975.

Since the land in Al-Mayed pilot project was not distributed to the settlers yet, farm size, family size, agricultural experience of the settlers, the criteria for their selection, their socio-economic spheres and other related affairs were not determined.

However, the project was well prepared with necessary provisions.

Socio-economic aspect of land settlement in Helmand Valley Project, Afghanistan

Description of the area

Land settlement in Helmand, the subject of this study, forms part of a large agricultural irrigation project called the Helmand-Arghandab Valley Project. The project is a large area located in the south western part of Afghanistan and includes two parts, Helmand and Arghandab. The Helmand part of the project is irrigated by the Helmand River and the Arghandab valley gets its water from the Arghandab River (Figure 5). A separate and independent organization called the Helmand-Arghandab Valley Authority (HAVA) is the responsible agency of the Government of the Republic of Afghanistan, for handling and development of this project.

Started in 1946, HAVA had an irrigated cropland area of about

145,000 hectares in 1970 (Owens, 1971, p 1). In 1973, Helmand had the following major constructions (HAVA, 1974, p 4):

- Two water reservoirs; one in Kajakai and another in Dahla with capacities of 1,495,000 and 338,000 acre foot each, respectively.
- Tree diversion lines covering a total length of 1,388 meters.
- Major canals covering a total length of 336 kilometers.
- Ditches covering a total length of 2,024 kilometers.
- Drainage covering a total length of 2,178 kilometers.
- Roads connecting different parts of the project: 1,205 kilometers.
- Land levelled from newly-reclaimed land by HAVA: 22,056 hectares.

We have dealt in this study only with the Helmand part of the project, as nearly all settlers are located in that area.

The Helmand part of HAVA consists of ten areas:

1. Nadi Ali
2. Marja
3. Chamalon
4. Grish
5. Darweshan
6. Khanashin
7. Seraj
8. Sanguin and Kajakai
9. Musa Kala and Zamindawar
10. Nowzad

Settlers are settled only in the first seven areas of the project due to the availability of newly reclaimed lands there. The writer chose the first four areas for the purpose of this study: Wadi Ali, Marja, Shamalon and Grish, due to the relatively large number of settlers settled in these areas, time limitation, distance and other difficulties. Here is a brief description of each of the four project areas:

The Wadi Ali project area is situated in the desert to the right of the Helmand River, about 12 kilometers west of Lashkargah, the project's administrative center. Its work started in 1951 and included 1,000 hectares of cropland by 1970. About 1,665 settler families were settled in this area until 1973 (Figure 6) (HAVA, 1974, p 32).

The Marja project area is situated in the desert on the right bank of the Helmand River about 27 kilometers southwest of Lashkargah. First settled in 1957, it had 6,300 hectares of cropland in 1970. This area received about 2,047 settler families by 1973 (Figure 7) (HAVA, files) (Dupree, 1971, p 5).

The Shamalon project area lies on the right bank of the Helmand River, connected to the southwest part of Lashkargah. The area had orchards and inhabitants long before the execution of the Helmand project. However, the project improved and expanded the land there. In 1970, the area had about 15,000 hectares of cropland and had settled settler families by 1973 (Figure 8) (HAVA, 1974, p 32).

Grish is an ancient area on both banks of the Helmand River, about 45 kilometers northeast of Lashkargah. Its cropland was of about 0 ha in 1970 and had received 141 settler families by 1973 (Fig. 9)

(Owens, 1971, p 5; HaVa files).

Objectives

The main objectives in the execution of the Helmand project were the following (HaVa, 1974, p 10):

1. Maximum utilization of land and water resources of the area;
2. To settle nomads;
3. To settle those who have no land but have agricultural experience;
4. To improve existing cropland and its irrigation system;
5. To reclaim new lands;
6. To improve the living standard of the people who had their residence in the area before the execution of the project and the arrival of settlers.

Farm size

Farm size was determined by land qualification and productivity in each area. This is why farm size in Helmand varies from area to area.

Table 4. Average farm size in jerib and hectares per area in Helmand, 1973.

Area	Average farm size in	
	Jerib	Hectare
Helmand	24.1	4.67
Nadi Ali	29.6	5.73
Marja	22.3	4.32
Shamalon	19.5	3.78
Grish	25.0	4.84

Family size

Average family size in Helmand was of 9.8 persons in 1973; average number of males in each family was 4.4 and average number of females reached 5.5 persons (Table 5).

Table 5. Average male and female number in each family and average family size, by area.

Area	Average number of males per family	Average number of females per family	Average family size
Helmand	4.4	5.4	9.8
Nadi Ali	4.2	4.8	9.0
Marja	4.0	6.9	11.0
Shamalon	5.1	5.1	10.2
Grish	4.2	5.0	9.2

Agricultural experience

About 48.5% of the settler population in Helmand had prior farming experience, while 32% led a nomadic life raising livestock; 19.4% of the settlers were engaged in other occupations.

It must be pointed out that those settlers having had agricultural experience prior to their settlement form the majority in HAVA as a whole. Nadi Ali is the only area in Helmand in which the majority of settlers are former nomads.

Table 6. Average years and percentage distribution of settlers according to their occupation prior to their settlement.

Area	Farming		Nomad		Shopkeeping		Other	
	Average years	per-cent	Average years	per-cent	Average years	per-cent	Average years	%
Helmand	17.9	48.5	21.6	32.0	11.4	8.7	9.5	10.6
Nadi Ali	14.2	20.5	25.1	36.3	18.8	27.2	11.0	15.9
Marja	18.1	22.8	22.0	27.7	27.0	34.0	12.3	15.5
Shamalon	19.1	35.5	20.0	37.2	-		14.7	27.3
Grish	20.2	50.2	20.0	49.8	-		-	

Dwellings

HAVA has three types of physical planning for houses:

1. Scattered type of houses: They are located right on the farm wherever the farmer felt it most convenient to him. One can mostly see this type of houses in the Grish area.

2. Linear type of houses: This type of houses are built along the road and located on the farm, usually facing the road. This type of houses can be seen mainly in the Marja and Shamalon areas.

3. Concentric or village type of houses: Here, houses are grouped in one place with lots at a short distance away. Such a type of village is mostly seen in the Nadi Ali area.

About 62% of the settlers, in Helmand, were living on their farms; about 37% of them were living in nearby villages and less than one percent were living elsewhere.

Table 7: The location of the settlers' houses and their percentage distribution by area.

Area	Houses located on the farm	per-cent	Houses located in a nearby village	Per-cent	Houses located elsewhere	Per-cent
Helland	65	62.3	39	36.7	1	0.96
Nadi Ali	6	14.6	35	85.4	-	
Marja	44	91.7	4	8.3	-	
Shamalon	10	90.9	-		1	9.1
Grish	5	100.0	-		-	

Public services

HAVA has provided some basic public services to the settlers. The project offered more facilities in the 1950's, few facilities during the late 1960's and until this survey was conducted in 1973.

The first group of settlers was settled in the Nadi Ali project area. They were provided with houses in a village type, having one market in each village for their daily needs; one Jami' (main mosque); a primary school; along with a high school and a small hospital in the center of the area. They were also receiving food and technical assistance during the first year.

However, all project areas did not resemble the Nadi Ali area. Settlers in other areas either received no government houses, or they received them on a shared basis after their settlement. Most of those settlers who did not receive houses were settled in the later stage of

the project. Only 20% of interviewed settlers claimed that they have received government houses at the time of their arrival in the project (Table 8). From those whose houses were not built at the time of their arrival in the project, only 9.5% received a house soon after; 61.9% of the settlers in Helmand constructed their own houses without government help, while 28.6% of them received partial assistance (Table 9).

Table 8. Number and percentage of settlers who received or did not receive already built houses at the time of their arrival in the project (per area).

Area	Received	Percent	Did not receive	Percent
Helmand	21	20.0	84	80.0
Nadi Ali	21	51.2	20	48.8
Marja	-	-	48	100.0
Shamalon	-	-	11	100.0
Grish	-	-	5	100.0

From those settlers who were interviewed, about 22.9% reported that the government (HAVA) had built a mosque for their worship at the time of their arrival or soon after, while 77.1% reported that they themselves had erected their mosque.

Table 9. The distribution of settlers according to who built the houses after their arrival in the project areas.

Area	By HaVA	Per-cent	By settlers	Per-cent	HAVA and settlers	Per-cent
Helmand	8	9.5	52	61.9	24	28.6
Nadi Ali	8	40.0	9	45.0	3	15.0
Marja	-	-	32	66.7	16	33.3
Shamalon	-	-	6	54.5	5	45.5
Grish	-	-	5	100.0	-	-

Table 10. Construction of a mosque by HAVA and by the settlers themselves, per area.

Area	By HaVA	Percent	By settlers	Percent
Helmand	24	22.9	81	77.1
Nadi Ali	22	58.5	17	41.5
Marja	-	-	48	100.0
Shamalon	-	-	11	100.00
Grish	-	-	5	100.0

From the interviewed settlers, 58% reported that there were schools for their children when they arrived in the project, the remainder gave negative response. About 97% of the interviewed settlers reported that there were schools for their children at present. All the schools were built by the project authorities.

Table 11. School availability at the time of settlement and at present, by area.

Area	Soon after settlement				At present			
	Avail-able	Per-cent	Not available	Per-cent	Avail-able	Per-cent	Not avail-able	Per-cent
Helmand	61	58.1	44	41.9	102	97.1	3	2.9
Nadi Ali	14	34.1	27	65.9	39	95.1	2	4.9
Marja	34	70.8	14	29.2	48	100.0	-	-
Shamalon	9	81.8	2	18.2	10	90.9	1	9.1
Grish	4	80.0	1	20.0	5	100.0	-	-

The schools were of different levels (primary, secondary and high schools) and of different types: boys', girls' and coeducational. No adult education program was existing in Helmand project.

Concerning medical facilities, about 18% of those who were interviewed reported that they were receiving medical facilities, whereas 82% gave a negative response. Those who were near to the center of the project area were receiving the service of physicians and to some extent

medicine free of charge. The number of such beneficiaries was much smaller than those not receiving such facilities.

Table 12. Availability of medical facilities, by area.

Area	Available	Percent	Not available	Percent
Helmand	19	18.1	86	81.9
Nadi Ali	6	14.6	35	85.4
Marja	12	25.0	36	75.0
Shamalon	-	-	11	100.0
Grish	1	20.0	4	80.0

Concerning veterinary facilities, 47% of the interviewees were receiving such facilities; 53% reported not receiving this sort of services.

The project provided a good agricultural extension service right from the beginning. About 85.4% of the settlers reported that they have consulted agricultural extension agents when the necessity arose; nearly all of them admitted the existence and availability of the extension services in their related areas.

There were few shops in each area - selling daily food and supplies. But the market from which settlers could purchase farm inputs and sell their output was at an average distance of 12 kilometers. The settlers often had to travel hundreds of kilometers in order to get large farm machinery and equipments, or to sell their large amount of

outputs. For example, Kandahar Silo, 160 kilometers away from Helmand, was attracting about 31.9% of the interviewed settlers' total production. The rest of the surplus went to Kandahar city (23%), local markets (20%), Helmand Gin and Press Company - only cotton is sent here -; merchants purchased about 8% of the total surplus product.

Table 13. Places to which surplus products were sold, by area.

Area	Silo	%	Kandahar city	%	Local market	%	Gin & Press	%	Merchant	%
Helmand	81	31.9	59	23.2	50	19.7	43	16.9	21	8.3
Nadi Ali	29	33.3	7	8.0	25	28.7	13	17.2	11	12.6
Marja	40	31.5	45	35.4	13	10.2	20	15.7	9	7.1
Shamalon	7	29.2	2	8.3	11	45.8	4	16.7	-	-
Grish	5	31.3	5	31.3	1	6.3	4	25.0	1	6.3

About 1,205 kilometers of unpaved roads were constructed by HAVA, connecting different parts of the project. Major canals, ditches and drainage facilities were also provided by the project authorities. About 89.5% of the interviewees reported that their lands were cleared and leveled by HAVA, while 8.6% of the settlers prepared their lands themselves for cultivation. Only 18.2% of the settlers in the Shamalon area, representing 1.9% of the total, reported that both project authorities and the settlers together prepared the land on a shared basis. The following table (Table 14) shows the situation.

Table 14. The number of settlers and their percentage distribution per area whose land was leveled and prepared for cultivation either by HAVA, the settlers, or both on a shared basis.

Area	By HAVA	Per-cent	By the settlers	Per-cent	Both	Per-cent
Helmand	94	89.5	9	8.6	2	1.9
Nadi Ali	38	92.7	3	7.3	-	-
Marja	48	100.0	-	-	-	-
Shamalon	8	72.7	1	9.1	2	18.2
Grish	-	-	5	100.0	-	-

About 84.8% of the interviewed settlers reported that their lands were already cleared and leveled by HAVA when they first joined the project; the remainder (15.2%) said that their lands were prepared for cultivation after their arrival (Appendix 1).

Each area had a governmental administrative unit which included security and police offices, post office, judiciary office, taxation office and other necessary arrangements.

Water supply and electricity were available only in the center of each area and were not extended to all settler houses because of the high cost of electricity, pipelines and their management.

Settlers in Helmand were receiving food supply and some technical assistance from HAVA only during the first years of their settlement. The food program ceased in 1969 when the World Food Program (WFP) started to help the settlers of the Helmand Valley. This program was effective from 1969 till 1973, the period in which this survey was

conducted.

World Food Program in Afghanistan (Project No. 277, Article I) states: "WFP aid is intended to tide the settlers over the initial stage of settlement when they will be short of food"; and continues on to state that it help HAVA settlers "... until their first full harvest becomes available. Apart from inducing permanent settlement, the provision of WFP assistance would help the settlers to avoid borrowing at high interest rates". Each family was receiving food aid during the first year of its settlement. The aid consisted of wheat, ghee oil, dried milk, conserved meat, tea and dried eggs.

When the settlers were asked what kind of help they were receiving at present from HAVA, 50.9% reported agricultural credit; 44.2% reported extension education and only 2.6% reported that they were receiving food (Table 15). Those who were receiving food were the newly arrived settlers.

Table 15. Kind of help and its percentage distribution received by settlers at present from HAVA, by area.

Area	Extension education	Per-cent	Credit	Per-cent	Food	Per-cent
Helmand	69	44.2	83	53.2	4	2.6
Nadi Ali	27	51.9	21	40.4	4	7.7
Marja	39	44.8	48	55.2	-	-
Shamalon	11	50.0	11	50.0	-	-
Grish	2	40.0	3	60.0	-	-

Selection of settlers

According to the definition of HAVA's 1969 Law for HAVA Settlers, a settler is a person who completely and voluntarily leaves, along with his family, his native place of living, for a new site which the government authorities appoint for him. An eligible settler must meet the following conditions:

- Suitable health for agriculture;
- Be male;
- Age between 25 and 50 years;
- Possessing no immovable property elsewhere;
- No military obligation;
- Acception of the terms of the settlement.

Economic sphere

Economic situation of settlers at the time of their settlement:

In order to discern the economic situation of HAVA settlers before their settlement, we must refer to previous records and surveys of this kind. Since such records were not kept in HAVA, it is difficult to assess the matter in detail. However, several brief questions were directed to settlers during the research for this study, so as to get a general idea of the situation. The questions were, for example, "what property did you have before joining HAVA ?"; or "what property did you bring with you to HAVA ?", etc.

Each settler family had an average of 16,370 Afs. in cash; about 63 sheep and/or goats and 3 camels, in the year before they departed from their native town to HAVA. Appendix 2 shows the movable and immovable property of settlers before joining HAVA.

Asked what property they had brought with them to HAVA, most of the settlers reported camels, sheep, goats and cash (appendix 3).

The settlers had sold some of their camels and livestock at the time of their departure and had bough oxen and horses which were the major production factors in agriculture at that time. They also brought extra money to HAVA, earned by selling other immovable and unnecessary property such as their house, garden, land, etc.

When we look at appendices 2 and 3, we find that Nadi Ali possessed a major part of the movable property in Helmand, namely livestock. We also see that the economic position of Nadi Ali settlers, consisting mainly of nomads, was better than that of settlers in other areas. Thus, nomads were in a better economic position than non-nomad settlers in terms of owning property and cash money at the time of their settlement.

When the settlers were acked whether they owned any property elsewhere at present, 94.3% said no. Only 5.7% answered by 'yes'. Five settlers - two in Nadi Ali and three in Marja area - reported that they owned shops in their living areas, kept by themselves and their families, besides farming, in their free time. One person in the Shamalon area reported owning an extra house and a car (Table 16). For more details see appendix 4.

In order to find whether the settlers have faced any serious economic crises since their settlement, they were asked whether they ever rented their land. About 98% said no; while only 2% of the interviewed settlers reported having rented a part of their land, because of their poor economic position at that time (Table 17).

Table 16. Property possession elsewhere, by area.

Area	No. of settlers who		In the case of owning, No. of settlers who own a		
	Own	Don't own	Shop	House	Car
Helmand	6	99	5	1	1
Nadi Ali	2	39	2	-	-
Marja	3	45	3	-	-
Shamalon	1	10	-	1	1
Grish	-	5	-	-	-

Table 17. Number of settlers who have rented their land and their percentage distribution, by area.

Area	Land rented	Percent	Not rented	Percent
Helmand	2	1.9	103	98.1
Nadi Ali	2	4.9	39	95.1
Marja	-	-	48	100.0
Shamalon	-	-	11	100.0
Grish	-	-	5	100.0

However, 60.9% of the interviewed settlers reported that they have had a Keshtagar, a Bazgar or both. About 39.1% of them reported that they have not hired any Keshtagar or Bazgar. Bazgar was preserving 94.4% of the total Bazgar-Keshtagar hired business in HAVA (Table 18).

Table 18. Number of settlers who have hired Keshtagar and Bazgar for their farms and their percentage distribution, by area.

Area	Hired	%	Not hired	%	No. of Keshtagar hired	%	No. of Bazgar hired	%
Helmand	64	60.9	41	39.1	5	5.6	85	94.4
Nadi Ali	22	53.7	19	46.3	1	2.6	37	97.4
Marja	37	77.1	11	22.9	4	8.9	41	91.1
Shamalon	4	36.4	7	63.6	-	-	6	100.0
Grish	1	20.0	4	80.0	-	-	1	100.0

Land and water: Land in Helmand is classified according to its fertility. There are four classes; three hectares (15 jeribs) of irrigated land from class one, four hectares from class two, five hectares from class three, or six hectares of irrigated land from class four was given to each settler family. Thus, farm size varies from three hectares (15 jeribs) to six hectares (30 jeribs) of irrigated land, forming the minimum and maximum limits.

Use of sharecroppers by settlers

Amount of land

Table 19. Number of settlers given different sizes of land, by area.

Area	No. of settlers given 3 hectares	No. of settlers given 4 hectares	No. of settlers given 5 hectares	No. of settlers given 6 hectares
Helmand	6	32	23	44
Nadi Ali	-	-	3	38
Marja	-	30	14	4
Chamalon	6	-	5	-
Grish	-	2	1	2

HAVA has a good irrigation system; about 95% of the interviewed settlers reported that they had regular water for irrigation. Only about 5% were complaining that they were not receiving regular water. From those who claimed, not receiving regular water, all in the Nadi Ali area, about 3% reflected that they had no permanent and well constructed canal from which they could irrigate their farms. They were irrigating their farms by flood and drained water. Sometimes they had no water at all or very little. Two settlers in Chamalon area indicated that their water right was not sufficient; this was why the available water could not irrigate the whole farm regularly (Table 20).

From those settlers who reported that they have regular water for irrigation, 14% of them claimed having more than enough; 62% just enough, and 26% reported not enough (Appendix 5).

Table 20. Regular water availability.

Area	Available	Percent	Not available	Percent
Helmand	100	95.2	5	4.8
Nadi Ali	38	92.7	3	7.3
Marjar	48	100.0	-	-
Shamalon	9	81.8	2	18.2
Grish	5	100.0	-	-

The average farm size in Helmand was 4.7 hectares (24.1 jeribs). About 92.4% of the settlers reported that they were planting crops in the whole property every year, while 7.6 percent claimed they could not plant crops in all of the land because of insufficient capital, salinity, water shortage, high water table, etc. (Table 21).

Table 21. Farm size and cropland, by area.

Area	No. of settlers and average farm size			Planting all the land, every year		Not planting all the land, every year	
	No.	Hect.	Jerib	No.	%	No.	%
Helmand	105	4.67	24.1	97	92.4	8	7.6
Nadi Ali	41	5.73	29.6	37	90.2	4	9.8
Marja	48	4.32	22.3	44	91.7	4	8.3
Shamalon	11	3.78	19.5	11	100.0	-	-
Grish	5	4.84	25.0	5	100.0	-	-

HAVA settlers, as all settlers everywhere, have had some problems related to their land and water. Twenty seven percent of these problems concerned salinity; 17.7% concerned high water table; 14.7% concerned water shortage; 14% were due to the rockiness of the land; 8% of the problems concerned the poor soil fertility and the remainder concerned miscellaneous problems or were no problem at all (Appendix 6).

Crops and cultural practices: Major crops grown in HAVA were wheat, corn, cotton, mung beans, cucurbits, beans, barley and potatoes, by order of importance. One could also see small vineyards in the project areas (Appendix 7). About 73.9% of the total land was used for wheat and the rest of the land was set aside for other crops, mainly cotton. The most suitable crops for the area were reported as being wheat, cotton, corn, peanuts, mung beans and cucurbits, respectively. Two settlers in Hadi Ali and one in the Shamalon area reported that their lands were more suitable for sugarbeet crop. They could not grow it because of the non existent market. Cucurbits were grown better in the Shamalon area, but pests were creating problems (Appendices 7 and 8).

Double-cropping was very popular in Helmand. Only corn constituted about 20% of the total summer cropped area and the rest of the area was devoted to cotton, cucurbits, etc. Double-cropping of cotton was increasing in Helmand due to the introduction of new varieties.

Improved varieties of wheat and corn were widely used in Helmand. About 96.2% of the settlers reported using improved varieties of wheat and corn; the remaining 3.8% of the settlers not using such varieties

explained this as being due to water shortage, poor soil fertility and a higher labor requirement. Improved varieties of wheat were used by all those settlers who claimed that they were using improved seeds. An improved variety of corn was used by 60.4% of the settlers (Appendix 9).

Table 22. Distribution and percentage of settlers, by area, using improved varieties of seeds.

Area	Growing	Percent	Not growing	Percent
Helmand	101	96.2	4	3.8
Nadi Ali	40	97.6	1	2.4
Marja	46	95.8	2	4.2
Shamalon	10	90.9	1	9.1
Grish	5	100.0	-	-

These improved seeds were acquired from the settler's own stock, extension center, neighbour and market respectively. However, it can not be claimed that a settler gets his seeds only from one source. It was quite possible and common for a settler to get some of his required seeds from his stock, some from his neighbours and some from the market as well.

The same case is applicable to the reasons for not growing improved seeds. For example, it is possible that the expense of fertilizer, coupled with the settler's ignorance, or water shortage along with bad soil fertility interact (Appendix 9).

Table 23. Source of improved varieties of seeds, by area.

Area	Own stock	%	Extension	%	neighbor	%	Market	%
Helmand	40	39.7	36	35.6	18	17.8	7	6.9
Nadi Ali	9	22.5	18	45.0	10	25.0	3	7.5
Marja	26	56.5	10	21.7	8	17.4	2	4.3
Shamalon	2	20.0	8	80.0	-	-	-	-
Grish	3	60.0	-	-	-	-	2	40.0

About 22.3% of the interviewed settlers reported that they were using insecticides and pesticides, whereas 77.7% of [illegible] not using these chemicals.

Table 24. Usage of insecticides and pesticides, by area.

Area	Used	Percent	Not used	Percent
Helmand	23	21.9	82	78.1
Nadi Ali	3	7.3	38	92.7
Marja	17	35.4	31	64.6
Shamalon	2	18.2	9	81.8
Grish	1	20.0	4	80.0

The reasons for not using such chemicals were: expense, unavailability, ignorance and lack of skill (Appendix 10). The only source for getting insecticides and pesticides was claimed as being HAA.

About 26.6% of the interviewed settlers mentioned the Agricultural Finance Agency (AFA) as the only official source for agricultural financial assistance, the market, own stock, neighbour and HAA were the next sources of getting farm inputs (Appendix 11).

Improved-breed animals were not popular in Helmand. Only 32.4% of the interviewed settlers reported owning such animals. Milk cows, oxen, sheep, goats and chicken were including improved breed animals. Improved-breed milk cows and oxen were more popular than other breed animals (Appendix 12). The reasons for not having improved-breed animals were stated as expense, unavailability, and ignorance respectively (Appendix 12). The only source for such breeds of animals was HAA.

Regarding animal health, veterinary facilities in Helmand were very limited. Forty seven percent of the interviewed settlers reported that they were receiving veterinary facilities, 53% of them having given a negative response. Even those who claimed receiving such services were complaining this only happened once or twice a year. Such facilities were provided free of charge (Appendix 13).

Farmers in Helmand are famous for using chemical fertilizer. Nobody reported not using it.

When the settlers were asked what training deficiency in the part of cultural practices they had, most of them said "nothing", about 13.6% reported though that they were in need of training in gardening, 11.1% said spraying chemicals, 5.9% mentioned land leveling and how to irrigate, etc. (Appendix 14).

About 26.6% of the training received by interviewed settlers was seed plantation training; 24.1% referred to plowing instructions; the remainder included how to irrigate, utilization of fertilizers and land leveling training (Appendix 15).

When the settlers were asked of how much benefit the training had been, 52.6% answered "very much"; 5.1% said "some"; 2.9% reported "little" and about 39.4% of them claimed "nothing" (Appendix 15). Those having answered "nothing" were the settlers with a long farming experience behind them.

When the settlers were asked what training was necessary for a new settler, about 22.9% of them said seed plantation; 21.9% said how to use fertilizers; 21.7% reported irrigation; 20.9% indicated plowing and the rest of the settlers indicated land leveling and seed plantation time (Appendix 16).

HAVA extension agents were reported as being those consulted about agricultural problems by 60.7% of the interviewed settlers. About 38.6% reported consulting their neighbour.

Table 25. Persons consulted about agricultural problems, by area.

Area	Extension agents	%	Neighbors	%	Village chief	%
Helmand	88	60.7	56	38.6	1	0.7
Nadi Ali	28	57.1	20	40.8	1	2.1
Marja	48	64.0	27	36.0	-	-
Shamalon	10	66.7	5	33.3	-	-
Grish	2	40.0	4	60.0	-	-

Costs and returns: The returns of farming, for the purpose of this study, come from three major sources: Production of field crops; fruits and vegetables; and livestock. Total income was defined as value of production plus off-farm income.

Major categories of expenses were seed, feed, depreciation, labor, tax and interest on borrowed money. Net income is defined as total income less total cost, the result of family labor, management and investment.

Average farm returns in Helmand constituted 38,943 Afs. per farm, while average farm expenses amounted to 17,620 Afs. Thus, net farm income was about 21,323 Afs. per family in Helmand. Off-farm income in Helmand was about 3,298 Afs. per family.

Thus, total net income was about 24,621 Afs. per family (Appendix 17). About 94.3% of the settlers reported not having any off-farm income. Only 5.7% claimed having such income. The ownership of a shop in the project area was the main off-farm income source, these shops being kept by settlers beside their farming work (Appendix 17).

The Marja area has a better economic position relatively to other areas. Nadi Ali secures the second place and Chamalon the third. The reasons why Chamalon area has a poor economic position relatively to Marja and Nadi Ali areas were stated as being water shortage and salinity in the area. Settlers in Grish area had the poorest economic condition, due to high water table and salinity.

Social sphere

Though the size of an average settler family in Helmand is quite large, kinship ties are weaker due to the arrival of settlers

from different parts of the country in each area. No expensive weddings, mortuary ceremonies, feasts, and the like existed anymore among settlers in Helmand, being away from their kinsmen. Though about 36.3% of the interviewed settlers reported that they had been encouraged by their tribe chief to settle and join HAVA, their bonds with their tribes were loosened and only 20% of them wanted to live among their kinsmen (Appendix 18).

When they were asked why they had joined HAVA, about 35.3% of the interviewed settlers said to get agricultural land; 23.7% desired better education for their children and 22.4% of the settlers reported that their previous life had been worsening (Appendix 19).

Settlers had waited an average of six years and eight months and had spent an average of 4,057 Afs. to receive their prospective land and settler title. When they were asked what business they had during the waiting period, 39% replied farming; 19.0% reported continuing their nomadic life and 16.2% of them said that they had been unemployed. The remainder referred to miscellaneous occupations.

Table 26. Number of settlers and their percentage distribution regarding their occupation during the waiting period before their settlement, by area.

Area	Farming	%	Nomad	%	Other occupation	%	Nothing	%
Helmand	41	39.0	20	19.0	27	25.7	17	16.2
Nadi Ali	9	22.0	10	24.3	9	22.0	13	31.7
Marja	20	41.7	8	16.7	17	35.4	3	6.2
Shamalon	8	72.7	1	9.1	1	9.1	1	9.1
Grish	4	80.0	1	20.0	-	-	-	-

Formal cooperative organization did not exist in Helmand, but informal cooperation among settlers was quite popular which could provide, to a large extent, a suitable atmosphere towards forming formal cooperative organizations. When they were asked whether they desired an elected committee among themselves who would consider all needs and make plans for them, all settlers responded positively. But nobody reported having such a committee. The reasons were stated as little confidence; the matter had not been discussed yet; not practical and the ignorance about the matter, respectively (Appendix 20).

About 64% of the interviewed settlers reported their being favorable towards home economics agents, who would come to train the female members of their families in growing vegetables, raising chickens, improving the family's diet, better child care and other domestic matters. Those who refused to receive such services gave their reasons as: not liking the idea, sufficiently competent wives, fear of change in the wives, etc. (Appendix 22).

Adaptation

Those who joined the project earlier adapted more to the new way of life than those who arrived only recently to Helm. Therefore, it is difficult to draw a concrete conclusion concerning adaptation. However, one can receive a general idea of the matter.

When the settlers were asked whether they were happy upon joining Helm, about 90.5% of them gave a positive response. Those who gave negative responses explained that they had left their relatives, that it was the first time they were migrating and that it was difficult for them, and also that they were not sure about their future.

Table 27. Number of settlers and their percentage distribution who were happy or not at the time they departed from their hometown to join Nava, by area.

Area	happy	%	Not happy	%	If not happy, why not			
					leaving relatives	%	uncertain future	%
Helmand	95	90.5	10	9.5	6	37.5	10	62.5
Nadi Ali	41	100.0	-	-	-	-	-	-
Marja	40	83.3	8	16.7	5	38.5	8	61.5
Chamalon	9	81.8	2	18.2	1	33.3	2	66.7
Grish	5	100.0	-	-	-	-	-	-

When they were interrogated about their present life, 92.4% reported being happy; only 7.6% complained that their life was not good. Those who were happy, gave the following reasons: they received agricultural land which they did not own before; they had a house; their children were receiving a better education than before; their economic life was now better than before their settlement; their social security was much better than before; they were permanently employed and led a more comfortable life than before. Those who were complaining gave the following reasons: their land was of poorer quality, their economic position was so weak they were not able to fully utilize their land and other resources; the surrounding people were harming them; there was not enough man-power to work on land; water shortage; high water table; etc. (Appendix 22).

Asked what problems they generally had during the first stage

of their settlement, 21.6% indicated problems related to the insufficient availability of agricultural machinery; 18.6% of the problems concerned not receiving enough agricultural education; 18.1% of the problems were due to the insufficient availability of improved seeds; 17.8% of the problems concerned the non-availability of agricultural credit and other technical assistance (appendix 23).

In order to compare between their present life and the life they had during the first stage of their settlement, the settlers were questioned about the major problems they presently faced. About 37.9% of the problems were due to the expensiveness of the chemical fertilizer; 22.8% concerned the lack of education for their children; 18.3% were drainage problems; lack of medical care and water shortage for agriculture each amounted to 11.4% of all problems (appendix 24). There was a good transportation system connecting different parts of the project area to each other as to the center of the project (Lashkargah). Settlers were going to Lashkargah even for ordinary needs. Only 33.3% of the interviewed settlers reported that they were buying their daily needs from local markets; whereas 66.7% indicated Lashkargah town.

Table 28. Place where settlers get their ordinary needs and their percentage distribution, by area.

Area	Local market	Percent	Lashkargah	Percent
Helmand	35	33.3	70	66.7
Nadi Ali	29	70.7	12	29.3
Marja	-	-	48	100.0
Chamalon	6	54.5	5	45.5
Grish	-	-	5	100.0

Conclusion

The terms of settlement were clearly stated by the project authorities and each settler knew the procedures of settlement in advance. These procedures were also strictly implemented and about 5% settler families have been deprived from their settlement rights in the land because of violating the settlement regulations. [illegible] land speculation and fragmentation for at least 10-23 years from the date of settlement. After passing this period successfully, during which the settler is strictly watched over, he receives a full ownership title with all other rights concerning his land.

Long procedures of settlement constituted a serious problem for DAVA, sometimes even ending in disappointment. A man needs years of waiting and a large amount of money in order to settle. [illegible] settled, given he is able to meet successfully [illegible] conditions over such a long period of time, he doesn't even own sufficient physical and financial power anymore to manage his life during the first difficult period of his settlement. Thus, settlers were not able to handle their farm units properly and consequently their living could not improve satisfactorily. In order to solve the problem, there is an urgent need for simplification of the procedures.

Since DAVA prepares a plan for the whole project, including settlement, which constitutes a part of the entire project, direct participation of the settlers in decision-making was minimal. Extension agents were constantly consulting settlers about their land and settlement affairs before and during the decision-making period as at the time of implementation of the plan. Nevertheless, even more contact between DAVA

and the settlers is necessary.

Education and training facilities were insufficient in Helmand. The interviewed areas had about 15,796 children of school age, while 5,111 of them were attending schools (only 32.6% of the total). Although one agricultural professional high-school was functioning in Helmand and was a great help to the area, there still was an urgent need for adult education and an agricultural training program.

Those settlers who were living at the center of the project area were supplied with electricity and drinking water, but the rest of the settlers (more than 95%) were not receiving such facilities.

The Helmand project had one well-equipped 70-bed hospital in the center of the project, Lashkargah, possessing 10 physicians, 19 nurses and other necessary provisions; also a small clinic with one physician in each area. However, only 16.1% of the settler population was receiving such services. This situation had raised serious health problems and nearly every body was complaining.

Each area had a police outpost and a post office with which the settlers were satisfied. Tax collecting and juridical office also existed in each area.

Some of the public lands given by HAVA to settlers had been previously illegally cultivated by village chiefs. This created ill will and jealousy from the native population towards the settlers. Some settlers in Shamalon and in Grish areas have already had this problem, for which HAVA must find a just solution. Otherwise, the settlers could be completely isolated from the rest of society, rendering their future life extremely difficult.

The project has a good agricultural extension program which was very helpful and appreciated by all settlers. However, the veterinary, chemical utilization, improved animal breeding and fruit growing section of the program needed more considerations.

Though HAVA has provided settlers with basic requirements such as irrigation canals, ditches, roads and a drainage system, etc., letting the settlers to be more or less self-sufficient, still much is lacking. Alone the settlers are not able to manage problems such as water shortage, high water table and salinity. Settlers in the Chahilon area were complaining of water shortage; in the Grish area, of high water table. Since such problems directly affect the settler's life, HAVA must help them out.

Though there was a credit-extending agency in HAVA by the name of Agricultural Finance Agency (AFA), her long-term procedures and restrictions have made her unpopular among the settlers. Needy settlers were borrowing money either from merchants or private money lenders who were charging them a high rate of interest. Careful consideration must be given to this problem and settlers should be provided with sound financial and technical assistance.

Kandahar Silo and Helmand Gin and Press Company were attracting a major part of wheat and cotton production. This helped price stability and encouraged the farmers to plant more crops. But, since there were not incentives for other crops, settlers were not growing much else than wheat and cotton. Kandahar city with her large population is in urgent need of dairy produce and vegetables, but since storage, processing, transportation and other marketing facilities were not sufficiently

available in HAVA, settlers were not encouraged to grow vegetables and increase their dairy production. A comprehensive program is needed to overcome this problem which is a major obstacle towards a better life for the settlers.

A very important factor, the cooperative, was totally absent in HAVA. HAVA must take an immediate step to help and encourage settlers to organize such societies and train settlers in cooperative and farm management.

Since Helmand constitutes a large project, an independent administrative organization is necessary to handle its affairs properly and avoid duplication of services and conflicts between different departments. HAVA, as an independent agency of the Government of Afghanistan, was the responsible organizati[illegible]t. The project was well integrated into the national plan.

HAVA had a department responsible for community development in the area. Its work was slow and not parallel to the progress and needs of the project. Neither handicraft industries nor home economics were introduced to the settler families. An efficient community development program would speed up the progress of the project and bring a better socio-economic life to the settlers.

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

A comparative analysis of the projects

Settlement projects differ from each other in their objectives; therefore, item by item comparison was difficult to make. For example, Nubian Resettlement Project (NRP) was a forced land settlement project, while settlement in HaVa was of spontaneous type; al-Katrana and Al-Jafr projects were mainly for the settlement of nomads; while in NRP the aim was to resettle displaced sedentary population; and HaVa had settled both sedentary and nomads.

Thus, it is obvious that the objectives [illegible] according to the nature and approach followed in each settlement project. However, the over-all objective in the execution of each project was to raise the level of living of a certain population in the respective country. Therefore, the over-all objective of raising the living standards of a certain population was shared by all the projects.

Farm size

Farm size was determined in NRP by the size of the household. In al-Katrana about 2.5 hectares and in al-Jafr about five hectares of irrigated land was assigned to each settler family irrespective of the family size. Farm size in HaVa was determined by the productivity of the land, which could reasonably support an average of five family members.

Table 29. Comparison of the objectives, by project.

Project	To settle those who were displaced by the erection of dam	To settle nomads	To settle landless peasants	Maximum utilisation of agricultural resources	To improve the existed cropland and irrigation system of the area	To create emergency food reserve for livestock in the area	To train leading personnel in agro-social field	To improve living standard of the people of the area	To organize people in cooperatives
Al-Qatrana	NA	+	ND	+	NA	ND	ND	ND	ND
Al-Jafr	NA	+	ND	+	NA	+	ND	ND	ND
Al-Mayed	-	ND	?	+	NA	ND	+	ND	-
NAVA	NA	+	+	-	-	ND	ND	+	ND

NA Not applicable

? Not known yet

ND Not determined

\+ Objective met

\- Objective not met

Family size

Helmand with extended-family type (9 persons) had the largest family size represented as compared to other projects; Al-Katrana and Al-Jafr were having an average family size of eight. Family size in NRP was not known due to the non-existence of such record. However, it could be expected that the family size in NRP located in an over-populated country with extended family system could be as large as in the other projects.

Agricultural experience

All Egyptian Nubians resettled in New Nubia had agricultural experience prior to their settlement. Though Al-Katrana and Al-Jafr projects had settled nomads, but prior agricultural training was a prerequisite for their settlement. HAVA mainly settled those who had agricultural experience prior to their settlement. The project also had settled those who were not farmers, but they got an intensive on-job training about farming immediately after their settlement.

Dwellings

NRP had a semi-circle physical planning, having crescent shape with Kom Ombo town at the middle of it. All the houses were built by the government in different size depending on the size of the household. Houses in Al-Katrana project were constructed by the settlers in a disorderly nucleated village type; while in Al-Jafr project, houses were constructed by the project authorities uniformly in a linear type. HAVA had three types of houses scattered, linear, and village type. Majority of the houses were constructed by the settlers themselves (more than 80%),

while the rest of them were constructed by NAVA.

Table 30. Physical planning situation, by project.

Project	Types of houses				Government built houses received by settlers in each project
	Scattered	Linear	Nucleated	Semi-circle	
NAP	-	-	-	+	∓
Al-Gatrana	-	-	+	-	+
Al-Jafr	-	+	-	-	∓
Al-Nayed	-	-	+	-	+
NAVA	+	+	-	-	∓

\+ Existed

\- Not existed

∓ Houses constructed by government with some inner alteration by settlers.

∓ Houses mainly constructed by settlers, while government built houses also can be seen in some areas.

Criterion for the selection of settlers

Since NAP was a forced land settlement, therefore, proper selection of the settlers was not done; land was distributed to land owners or to those who had a house in Old Nubia, but to be a farmer by profession was necessary condition for this entitlement. Having at least two years agricultural work in the project was prerequisite to the actual settlement in Al-Gatrana and Al-Jafr projects. NAVA officially had no

such precondition. Based upon the author's long experience in NAVA, only landless farmers had the right to be settled there. Those who had no agricultural experience came under separate arrangements.

Facilities available for agricultural development

Facilities for agricultural development with different degrees of availability were present in different project areas. Nubian settlers were comparatively provided with more facilities for agricultural development than the settlers of other projects; Al-Latrana and Al-Jafr projects came next; while NAVA had provided very little. These observations were not possible in Al-Kayed as actual settlement had not taken place yet.

Table 31. Availability of agricultural facilities, by project.

Project	Land clearance	Land leveling	Extension education	Insecticides & pesticides	Technical assistance	Marketing facilities	Veterinary facilities
NHP	+	+	+	?	+	+	+
Al-Latrana	+	+	+	-	+	-	-
Al-Jafr	+	+	+	-	+	-	-
Al-Kayed	+	+	?	?	?	?	?
NAVA	±	±	+	∓	∓	∓	∓

+ Available
- Not available
? Not known yet
± Available (some)
∓ Available (little)

Availability of public services

Nubian resettlement project offered better public services to the settlers than all other projects. Al-Nayed project was next in providing public services and NAVA offered meagre facilities. Settlers in Al-Jafr land settlement project were also offered little public services, while, Al-Matrana land settlement project offered almost nothing (Table 32).

Economic sphere

Nubian settlers were getting more income and had achieved better economic life in New Nubia than in Old Nubia. However, spending their savings on ceremonial occasions, and involvement in jewellery, etc. were affecting their economic life. Economic condition of the settlers in Al-Matrana project was not improved; however, they claimed that they had comparatively more income before joining the project. This was due to their stable monthly payment as they had not yet received their farm units. Economic life of settlers in Al-Jafr project was much improved but lack of financial and marketing facilities, affected them adversely. As the land had not been distributed to the settlers in Al-Nayed project, therefore, analysis of the economic condition of the settlers was not possible. Settlers in NAVA had achieved better economic life than before settlement, however poor financial and marketing arrangement had slowed their economic betterment (Table 33).

Emancipation

Settlers in Al-Jafr project were the most and in NAVA were the least dependent on the help of the project authorities, as compared to

Table 32. Availability of public services, by projects.

Project	Village market	Mosque	Education	Medical office	Post office	Police office	Justice office	Taxation office	Electricity	Water supply	Recreation	Community development
MAP	+	+	+	+	+	+	ND	ND	+	+	+	
Al-Qatrana	-	-	-	-	-	-	-	-	-	-	-	-
Al-Jafr	+	-	±	∓	-	-	-	-	-	+	-	-
Al-Hayed	+	+	+	?	+	+	-	-	+	+	+	?
HAVA	∓	∓	±	∓	∓	+	+	+	∓	-	-	∓

\+ Available

\- Not available

± Available (some)

∓ Available (little)

ND Not determined

? Not known yet

Table 33. Degree of improvement of economic condition of settlers, by project.

Project	Economic position
[illegible]	±
Al-Qatrana	–
Al-Jafr	±
Al-Hayed	?
HaVa	±

± Improved (some)

– Not improved

? Not known yet

other projects. Nubians were considered in the middle of these two. Settler-candidates in Al-Qatrana project had not received their prospective lots yet, and reclaimed land was not yet distributed in Al-Hayed project, therefore, settlers' degree of dependence cannot be discussed.

Adaptation

Nubian settlers gradually adapted to the new way of life without much difficulties, but the settlers in Al-Qatrana project had not yet adapted to the new environment as actual settlement had not taken place. Settlers in Al-Jafr project had adapted to the new way of life but strong kinship ties posed certain difficulties. Al-Hayed project, still awaited settlement, while in HaVa settlers had adapted to the new pattern of living better and faster than other projects due to their willingness

Table 34. Degree of settlers' dependency on the project's ... in seven projects.

Project	Degree of ... dependency
Bnd	-
Al-Qatrana	+
Al-Safr	+
Al-Hayed	+
Bāir	-

+ much dependency on the project's help

± less dependency on the project's help

and spontaneous settlement (Table 39).

Table 35. Degree of settler's adaptation to the new way of life in different projects.

Project	Degree of ... adaptation
Bir-	-
Al-Qatrana	-
Al-Safr	±
Al-Hayed	?
Bāir	+

+ adapted ± somewhat adapted

- not adapted ? not known yet

Standard of living

Settlers in Nubian resettlement project, Al-Jafr, and NaVA had achieved a better standard of living respectively, due to improvement in their socio-economic position; while settlers in Al-Matrana project had not achieved a better life, as actual settlement had not taken place. In Al-Sayed, this comparison was not possible (Figure 11).

Table 36. Improvement in standard of living in different projects.

Project	Better life achieved
Nuri	+
Al-Matrana	-
Al-Jafr	+
Al-Sayed	?
NaVA	+

\+ better standard of living

\- no improvement achieved

? not known

Conclusions

The proposed land settlement model

Since land settlement deals with both nature and human beings, it is necessary to keep them in mind when undertaking any action in this area; ignoring anything concerning them or considering it of lesser importance would bring disaster to the whole project. Keeping in mind this principle and various existing conditions in the area, a model of

land settlement for the Helmand-Arghandab Valley project is suggested here, seeming to be a suitable framework for land settlement here. If this model is found feasible (if it is ever practiced), it can be applied to other parts of Afghanistan, having undergone the necessary modifications.

Type of land settlement

A suitable type of land settlement for the Helmand-Arghandab Valley Project in Afghanistan is "planned land settlement". In this type of land settlement, settlers are not totally dependent upon government help: both settlers and government work together. Major constructions, public services and those provisions which settlers alone are not able to supply themselves, are provided by the project authorities; while the rest of the project's development work is left to settlers. Careful and considerable efforts are needed to formulate a guideline to clarify the share of each part, government and settlers.

Preliminary surveys

In the case of an entire population being moved for resettlement, a comprehensive socio-economic survey of the departure area is needed which would have a reliable basis for future planning and settlement. After such a survey, before the actual settlement, a comprehensive land and economic survey of the arrival area is a must. It should be discernible, from this survey, whether the new place can provide satisfactory living conditions for settlers in the present and future. In the case of individual settlement where settlers are coming from different parts of the country, a preliminary survey of the arrival area

is sufficient.

Provisions

When the land and environment survey is completed and found suitable for settlement, the preliminary preparation of the project is necessary. Special consideration should be given, at this stage, to soil and land problems, health, public utilities, communication facilities and other socio-economic factors needed by the settlers.

Planning for the project

The next important stage for a successful land settlement project is the "planning stage". The decision made in this stage will influence the life of settlers for generations. The following steps should be here considered:

Farm size: The size of the lot assigned to each settler must be sufficient to support a family at a satisfactory level of living, taking into consideration the technical result of the soil and present and future abilities of the settler.

Type of farming practice: Project authorities must kindly advise settlers about suitable crops, well grown in their settlement area. Otherwise, they will cultivate those plants to which they were accustomed in the past, possibly dangerous and not suitable to the new area.

Physical planning: If the topographical conditions are suitable, the circle type of housing is preferable, having the advantages of both the linear and the concentric types of housing.

Settlement regulations: The terms of settlement must be clearly

stated by the project authorities and each settler must know them well in advance. The regulations should be simple, to avoid long waiting periods and extra expense. Strong measures should be taken to prevent land fragmentation due to inheritance and land speculation due to economic reasons. Otherwise, either land would fragment in such a way that there would be no more economic units, or speculated upon in such a manner that large estates would fall at the hands of a few people. In both cases, another redistribution of land would be necessary, and that is not feasible. The regulations must be strictly implemented and no favoritism should be permitted.

Selection of the settlers

The fourth important stage in the execution of a land settlement project is the stage of selection of prospective settlers. Those settlers should be selected who are capable of answering positively to project objectives. Such selection would guarantee to a large extent the success of the project. The criteria for the selection of settlers vary from project to project and time to time. However, having agricultural experience must be a prerequisite for any settler selection. If nomads are going to be settled, a special arrangement is necessary; whether it be giving them agricultural training before they receive their prospective lots or giving them intensive on-job training in farming.

Installation

When settlers arrive in the new area, they are not able to manage their life properly for a certain period of time. Some sort of arrangements for their reception, nutrition, housing, technical and

financial assistance and other immediately needed help is vital.

Continuation

Once settlers are settled in an appropriate way, they must not be entirely left on their own. The project authorities should take the following necessary steps in order to direct the project so as to develop successfully:

Laws and regulations: Jurists, economists and sociologists should study the settlement situation together and undertake sociological and legal investigations in order to decide upon the best regulations, taking into account the present socio-economic conditions, power relationship, religious situation and needs for the country's agro-economic development. Such laws and regulations would guide the project towards a successful outcome.

Education and training: A land settlement program can only be successful if it activates all segments of the settler population; children, youth and adults, including women. This education must have rural characteristics, facilitate the community development and home economics programs and change the old leadership. Personnel training in farm management and cooperative management is an important part of such a program.

Settler participation in decision making: The project authorities must give the settlers a chance to take part in decision-making concerning their own affairs. They would thus be interested in the implementation of the plan and would feel that the land settlement organization belongs to them. Moreover, they would receive some training in handling and organizing their own affairs.

Provision of specific basic services: Provision of technical assistance to the settlers, marketing facilities, organizing cooperatives and providing necessary public services are vital factors for the success of any settlement project. Neglecting any part of this program or considering it less important will adversely affect the settlers' life, in both present and future. But this help must be so that the settlers are gradually emancipated and not turned into beggars.

Stimulating self-help and group action: The concept of self-help and group action must be strengthened among the settlers. Construction of unpaved roads, wells, houses, and pest control are examples of group action, while forming cooperative organizations and a communal land tenure system are instances of self-help.

Community development program: A well-integrated community development program is a major input in improving the settlers' lives. Land settlement must activate both male and female members of the settler family. It must provide essential elements of technical knowledge and industry to school children, adolescents and adults through the educational and industrial programs of the community development.

Integration of the project into national objectives: To avoid the isolation of a land settlement project from the rest of society, to preserve harmony among different sectors of the project and finally to avoid failure, it is necessary for the project to be a part of the national plan.

Organization: If the project is large enough, an independent agency must be established so as to form a link between different government agencies, to avoid conflict and duplication of activities

among different government agencies. Such an organization needs a qualified administrative staff to handle the project's affairs properly. However, if the land settlement project is small, there is no need for such a separate organization, due to its high administrative costs and other difficulties.

Recommendations

Based on the present study, observations and experience, the following recommendations seem appropriate:

1. Comprehensive longitudinal socio-economic surveys covering all aspects of land settlement in these projects should be undertaken. These surveys would be helpful in pointing out gaps in land settlement process, as well as indicate the progress and development which has occurred over a period of time. Similarly, for future settlements in LAVA, such surveys prior to settlement would positively contribute in effective planning and execution of the project.

2. The decisions of the project authorities about land settlement affairs should be based on up-to-date information, consultation with the experts as well as the settlers. Once the plans are developed and decisions are made, it must be strictly implemented on time.

3. Land should be given only to those settler-candidates who have farming experience prior to their settlement. If nomads or those with no farming experience are to be settled, then, a strict agricultural supervision and an intensive on-job training for them should be instituted.

4. The degree of availability of some civic and public services like education, medical care, extension, technical and financial

assistance, etc. to the settlers would ensure the success of the project.

For HAVA

1. The long settlement procedures of HAVA which have raised many serious problems must be simplified for efficiency reasons.

2. If topographical conditions permit, then, circle type of physical planning for future settlement in HAVA is recommended. In case it is not feasible, then, a compact linear type of housing is advised.

3. In HAVA improvements should be made in financial and technical aid, extension service and marketing facilities. Besides, the provision for food should be made for the settlers for the first year.

4. Efforts should be made also to provide necessary education and agricultural training to the settler population and the project authorities should help them to improve their animal husbandry practices.

5. Agricultural cooperatives, home-economics and a well-integrated community development program in HAVA would have positively contributed to settlers' economic life. It is recommended that necessary steps should be taken to institute these organizations, may be at a limited scale initially.

6. Insufficient facilities for medicine and education, high cost of fertilizer in general, water shortage in Chamelon area, salinity and high-water table in Grish area particularly are the problems which the project authorities are recommended to attend to immediately.

assistance, etc. to the settlers would ensure the success of the project.

For MAVA

1. The long settlement procedures of MAVA which have raised many serious problems must be simplified for efficiency reasons.

2. If topographical conditions permit, then, circle type of physical planning for future settlement in MAVA is recommended. In case it is not feasible, then, a compact linear type of housing is advised.

3. In MAVA improvements should be made in financial and technical aid, extension service and marketing facilities. Besides, the provision for food should be made for the settlers for the first year.

4. Efforts should be made also to provide necessary education and agricultural training to the settler population and the project authorities should help them to improve their animal husbandry practices.

5. Agricultural cooperatives, home-economics and a well-integrated community development program in MAVA would have positively contributed to settlers' economic life. It is recommended that necessary steps should be taken to institute these organizations, may be at a limited scale initially.

6. Insufficient facilities for medicine and education, high cost of fertilizer in general, water shortage in Shamelon area, salinity and high-water table in Grish area particularly are the problems which the project authorities are recommended to attend to immediately.

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Appendix 1

Land clearance and leveling in kwia, per area.

Area	Land cleared						Time of land clearance and leveling			
	by settler	%	by government	%	by both	%	before settlement	%	after settlement	%
Bellmard	16	15.2	83	83.1	1	1.7	89	84.8	16	15.2
Wadi Ali	3	7.3	38	92.7	-	-	38	92.7	3	7.3
Barja	-	-	48	100.0	-	-	48	100.0	-	-
Shemalon	8	72.7	2	18.2	1	9.1	3	27.3	8	72.7
Orich	5	100.0	-	-	-	-	-	-	5	100.0

Appendix 2

Average property possessed by settlers before settlement, by area.

Area	Oxen	Cow	Donkey	Camel	Goats and sheep	Horse	House	Land (Jerib)	Cash money (Afs)
Helmand	0.4	0.8	0.4	3.2	62.5	0.08	0.05	0.25	16,370
Nadi Ali	0.2	0.2	0.7	7.9	146.7	0.2	-	0.1	33,463
Marja	0.4	1.1	0.2	0.3	9.2	-	-	-	4,250
Chamalon	0.6	0.8	0.2	0.4	5.0	0.1	0.2	-	11,618
Grish	0.6	0.8	0.2	0.4	10.0	-	-	-	3,000

Appendix 3

Average property brought to the area by settlers, by area.

Area	Oxen	Cow	Donkey	Horse	Camel	Goats and sheep	Cash money	Nothing
Helmand	0.6	0.7	0.3	0.1	1.5	33.3	18,746	0.1
Nadi Ali	0.1	0.2	0.6	0.1	6.2	152.7	40,963	0.2
Marja	0.9	0.7	0.1	0.1	-	0.5	5,375	0.3
Khanaqin	0.2	0.5	0.2	0.1	-	-	16,245	-
Urish	1.0	1.4	0.2	-	-	-	12,400	-

Appendix 4

Average percentage distribution of property possessed by settlers, elsewhere, per area.

Area	Possessed %	Not Possessed %	In the case of possessing		
			Shop %	House %	Car %
Helmand	5.71	94.29	71.4	14.3	14.3
Nadi Ali	4.9	95.1	28.6	-	-
Marja	6.3	93.7	42.9	-	-
Shamalon	9.1	90.9	-	14.3	14.3
Grish	-	100.0	-	-	-

Appendix 5

Amount and percentage of regular water available and the reasons for its shortage.

Area	The amount and percentage of available water						Reasons for less availability			
	More	%	Enough	%	Less	%	Limited canal capacity	%	End of Canal	%
Helmand	14	14.0	62	62.0	26	26.0	7	26.9	19	73.1
Nadi Ali	8	21.0	29	76.0	1	3.0	-	-	1	100.0
Marja	3	6.0	27	56.0	13	38.0	5	27.8	13	72.2
Shamalon	-	-	4	44.0	7	78.0	2	28.6	5	71.4
Grish	3	60.0	2	40.0	-	-	-	-	-	-

Appendix 6

Land problems and their percentage distribution, by area.

Area	Salinity	%	High water-table	%	Water shortage	%	Rocky	%	Soil deficiency	%	Not levelled	%	Others	%
Helmand	37	27.2	24	17.7	20	14.7	19	14.0	11	8.1	3	2.2	3	2.3
Nadi Ali	29	53.7	16	29.6	-	-	2	3.7	2	3.7	2	3.7	3	5.6
Marja	2	4.9	4	9.8	13	31.7	14	34.1	8	19.5	-	-	-	-
Khanaqa	4	26.7	1	6.7	7	46.7	3	20.0	-	-	-	-	-	-
Grish	2	28.6	3	42.9	-	-	-	-	1	14.3	1	14.3	-	-

Appendix I

Major crops grown every year, by area.

Area	Wheat	Corn	Cotton	Long beans	Eucalyptus	Beans	Hay	Grapes	Potatoes
Helmand	104	90	94	51	14	8	2	3	2
Kadi Ali	40	36	32	28	-	-	2	-	-
Marja	48	43	48	30	6	6	-	3	2
Chanalon	11	9	10	3	4	-	-	-	-
Grish	5	5	4	-	4	-	-	-	-

Annex 8

Crops suitable in the area.

Area	Wheat	Cotton	Corn	Peanuts	Mung beans	Cucurbits	Winter beets	Sorghum
Helmand	34	31	16	11	6	6	3	2
Wadi Ali	34	11	6	-	-	1	2	2
Marja	39	12	3	11	5	-	-	-
Chamalon	9	7	3	-	1	2	1	-
Grish	2	1	4	-	-	3	-	-

Appendix °

The growing of improved seeds and the reasons for not growing and their percentage distribution, by area.

Area	In the case of growing						Reasons for not growing							
	Wheat	%	Cotton	%	Corn	%	Water shortage	%	Soil deficiency	%	Expense of fertilizer	%	More labor requirement	%
Nahrawd	101	52.0	61	31.4	32	16.5	1	25.0	1	25.0	1	25.0	1	25.0
Hadi Ali	40	58.0	18	26.1	11	15.9	-	-	1	100.0	-	-	-	-
Marja	46	49.5	30	32.3	17	18.3	-	-	-	-	-	-	1	100.0
Khamalon	10	45.5	9	40.9	3	13.6	1	100.0	-	-	-	-	-	-
Girish	5	50.0	4	40.0	1	10.0	-	-	-	-	1	100.0	-	-

Appendix 19

The reasons given for not using chemicals and their percentage distribution, by area.

area	Expensive	%	Not available	%	Ignorance	%	Acquire skill	%
Helmand	44	50.0	20	24.1	18	21.7	1	1.2
Kabul Ali	18	47.4	9	23.7	11	28.9	-	-
Nangarhar	22	71.0	5	16.1	4	12.9	-	-
Kohistan	2	22.2	3	33.3	3	33.3	1	11.1
Kabul	2	50.0	2	50.0	-	-	-	-

Appendix 11

Source(s) of getting farm inputs and their percentage distribution, by area.

Area	AFA	%	NAP	%	Market	%	Stock	%	Neighbours	%
Helmand	80	26.6	52	17.3	76	25.2	75	24.9	16	6.0
Nadi Ali	17	20.7	16	19.5	17	20.7	22	26.8	10	12.2
Marja	48	26.8	32	17.9	48	26.8	43	24.0	8	4.5
Chamalon	10	24.5	4	13.8	8	27.6	7	24.1	-	-
Grish	5	45.4	-	-	3	27.3	3	27.3	-	-

Appendix 12

The situation of improved breed animals in Nava and their percent distribution, by area.

Area	Having	%	not having	%	In the case of having				Reasons for not having							
					Milking cows	%	Oxen	%	Expen-sive	%	not avail-able	%	Died	%	Igno-rance	%
Helmand	34	32.4	71	67.6	36	57.2	27	42.8	33	42.3	23	32.4	10	14.1	8	11.2
Nadi Ali	10	24.4	31	75.6	12	19.1	5	7.9	19	61.4	8	25.8	2	6.4	2	[illegible]
Marja	20	41.7	28	58.3	19	30.1	20	31.7	8	28.6	11	39.3	7	25.0	2	7.1
Khanaqa	3	27.3	8	72.7	4	6.4	2	3.2	2	25.0	3	37.5	1	12.5	2	25.0
Garish	1	20.0	4	80.0	1	1.6	-	-	1	25.0	1	25.0	-	-	2	[illegible]

Appendix 13

The availability of veterinary facilities and their percentage distribution by area

Area	Available	%	Not available	%	Source of availability				Reasons for not available					
					Ministry of agriculture	%	Expensive	%	Ignorance	%	not available	%		
Helmand	49	46.7	56	53.3	49	100.0	21	38.2	19	34.5	16	27.3		
Nadi Ali	11	10.5	30	28.5	11	100.0	4	13.3	18	60.0	8	26.7		
Marja	27	25.7	21	20.0	27	100.0	15	71.4	-	-	6	28.6		
Chamalon	8	7.6	3	2.9	8	100.0	1	33.3	1	33.3	1	33.3		
Urich	3	2.9	2	1.9	3	100.0	1	50.0	-	-	1	50.0		

Appendix 14

Training deficiency felt by settlers at present in agriculture and their percentage distribution by area.

Area	Gardening	%	Spraying	%	Land levelling	%	Irrigation	%	Using fertilizers	%	Weeding	%	Cotton growing	%	Others	%
Helmand	16	13.8	13	11.2	7	6.0	6	5.2	6	5.2	5	4.3	2	1.7	61	52.6
Kajaki Ali	-	-	-	-	2	5.1	-	-	1	2.6	-	-	-	-	36	92.3
Marja	16	27.6	5	8.6	4	6.9	4	6.9	2	3.4	4	6.9	-	-	23	39.7
Khanaqah	-	-	6	50.0	1	8.3	2	16.7	1	16.7	1	8.3	-	-	-	-
Garish	-	-	2	28.6	-	-	-	-	1	14.3	-	-	2	28.6	2	28.6

Appendix 16

Kinds of training necessary for new settlers, by area.

Area	Seed plantation	%	Fertilizer	%	Irrigation	%	Plowing	%	Land leveling	%	Plantation time	%
Helmand	93	22.9	89	21.9	88	21.7	85	20.9	39	9.6	12	3.0
Nadi Ali	39	22.9	37	21.8	34	20.0	35	20.6	16	9.4	9	5.3
Marja	40	23.4	40	23.4	42	24.6	35	20.5	14	8.2	-	-
Shamalan	9	18.8	9	18.8	8	16.7	11	22.9	8	16.5	3	6.3
Grish	5	29.4	3	17.6	4	23.5	4	23.5	1	5.9	-	-

Table 12

The performance of cashewnuts in living areas, plantations and home gardens, by zones.

Area	Cultivators	%	Trees	%	Output kg	%	Output per cultivator kg	Output per tree kg
Southland	21	20.0	84	60.0	21	.0	41	53.0
[illegible]	18	43.0	43	56.1	16	.7	47.1	19
Pwani	-	-	41	100.0	-		-	-
Plantation	2	18.2	9	81.8	2		3	6.0
Orphan	1	20.0	4	80.0	1		2	66.7

Appendix 21

The attitudes' response towards home-economics [illegible]

Area	Positive	%	Negative	%	Undecided/ Have no opinion	%	Not responsible	%	[illegible]		[illegible]		[illegible]	
[illegible]	68	64.8	37	35.2		32.4	2	2.4	11	[illegible]	5	[illegible]
[illegible]	16	47.0	03	53.0		18.8	-	-	11	[illegible]	3	[illegible]
[illegible]	37	77.1	11	22.9		69.8	1	2.1	2	[illegible]	-	[illegible]
[illegible]	9	81.8	2	18.2		64.7	1	35.3	-	-	-	[illegible]
[illegible]	4	33.0	1	24.0		-	-	-	3	[illegible]	-	[illegible]

Annexure 21

The antibiotic response towards [illegible]

Area	Positive	%	Negative	%	Organisms other	%	Not [illegible]	%	[illegible]		[illegible]	
[illegible]	68	69.4	27	28.6		32.4	2	3.2	11	[illegible]	5	[illegible]
[illegible]	16	41.0	23	59.0		13.6	-	-	4	[illegible]	3	[illegible]
[illegible]	37	77.1	11	22.9		69.8	1	1.9	2	[illegible]	-	
[illegible]	9	81.8	2	18.2		66.7	1	33.3	-	-	-	
[illegible]	4	80.0	1	20.0		-	-	-	1	[illegible]	-	

	18.0	77	[illegible]	13	4.7	17	6.1	-	6.7	2	[illegible]	1	[illegible]	1	[illegible]
	8.1	41	[illegible]	6	[illegible]	11	[illegible]	7	4.7	1	3.7	-	-	1	[illegible]
	10.2	[illegible]	21.9	-	-	3	3.8	-	-	-	-	-	-	-	-
	17.2	3	3.8	5	9.[illegible]	-	-	1	1.9	1	1.9	1	1.9	-	-
	5.9	3	5.9	2	11.8	1	5.9	-	-	-	-	-	-	-	-

the major problems which confront [illegible] at the [illegible] of their outbreak -- by area of distribution, by area.

Area	Epidemics	%	Area low production	%	Area	%	Area	%	Area	%	Area	%
[illegible]	101	21.8	36	15.4	46	16.1	22	17.2	78	15.1	41	[illegible]
[illegible]	28	23.0	8	17.0	24	20.6	24	23.0	11	10.7	12	[illegible]
[illegible]	48	20.4	11	20.4	31	17.2	34	15.3	41	23.1	17	7.2
[illegible]	10	23.8	6	12.5	7	16.7	7	16.7	3	7.1	7	17.7
[illegible]	5	22.7	4	18.2	3	13.6	5	22.7	1	4.5	4	18.2

1. [illegible] _____

2. [illegible] _____

3. [illegible] _____

4. [illegible] _____

5. [illegible] _____

6. [illegible] _____

7. [illegible] _____

8. [illegible] _____

9. [illegible] _____

10. [illegible] _____

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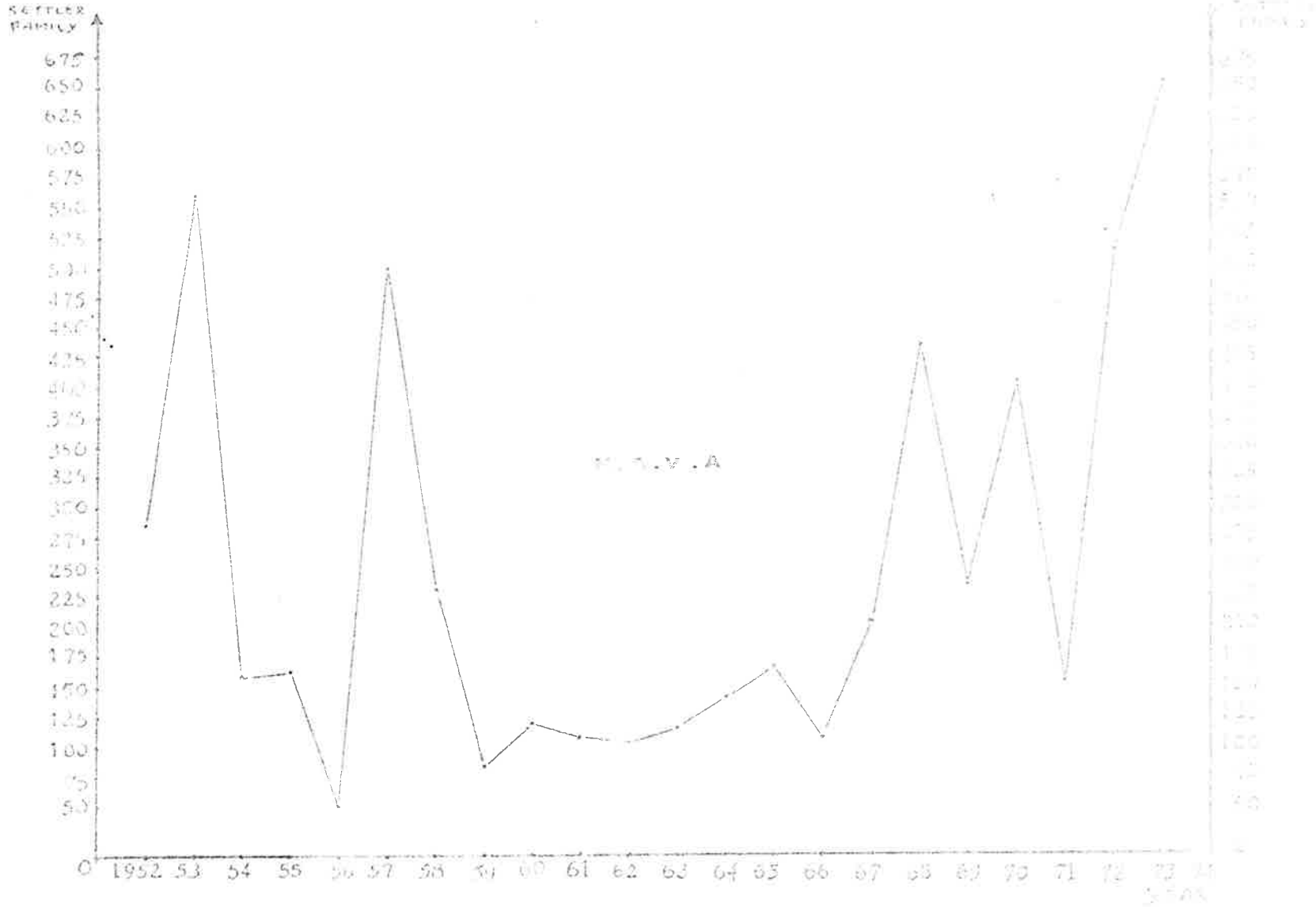

Figure 1. The distribution of settler families settled in Helmand, by years.

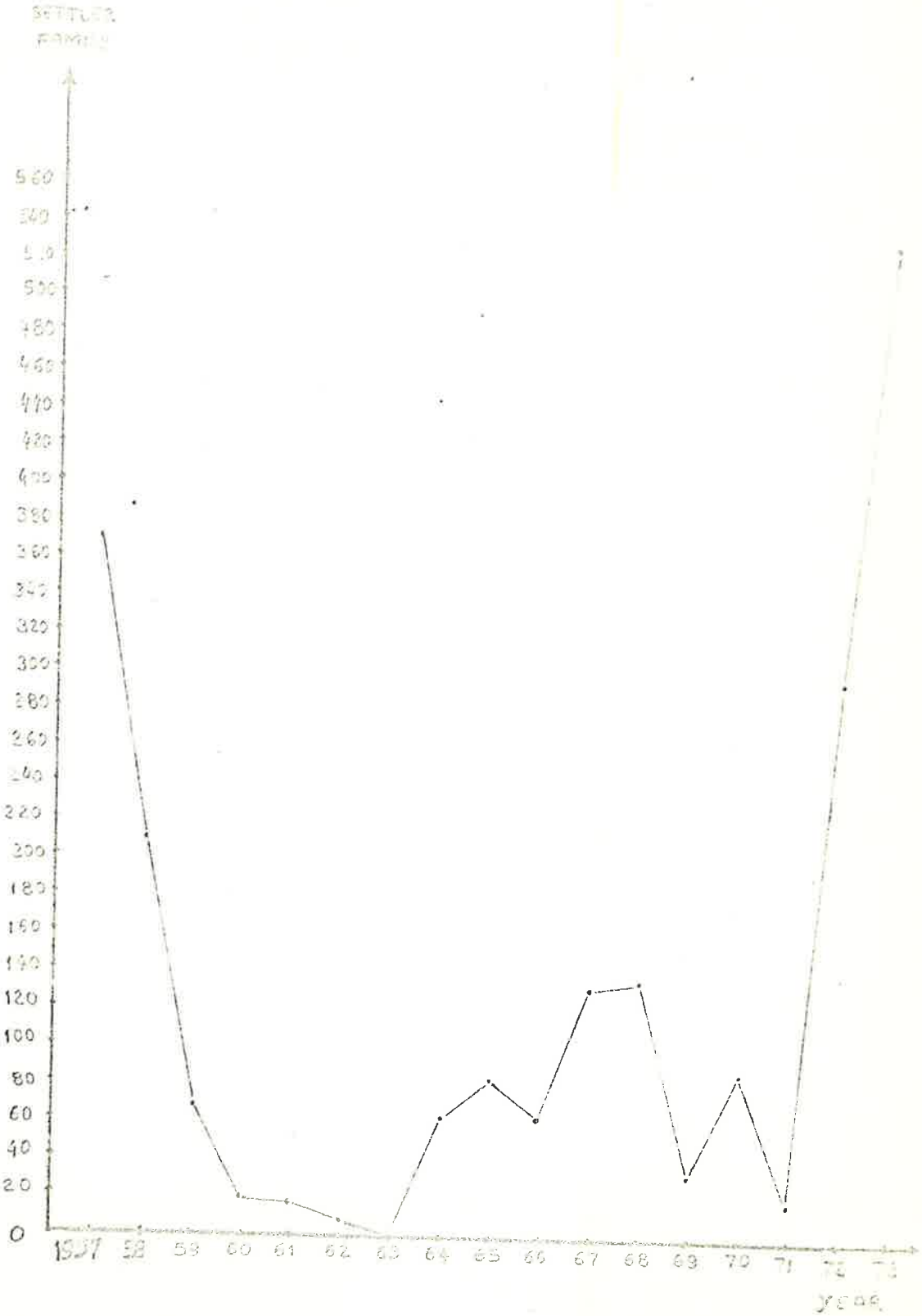

Figure 7. The distribution of settler families settled in Marja area, by year.

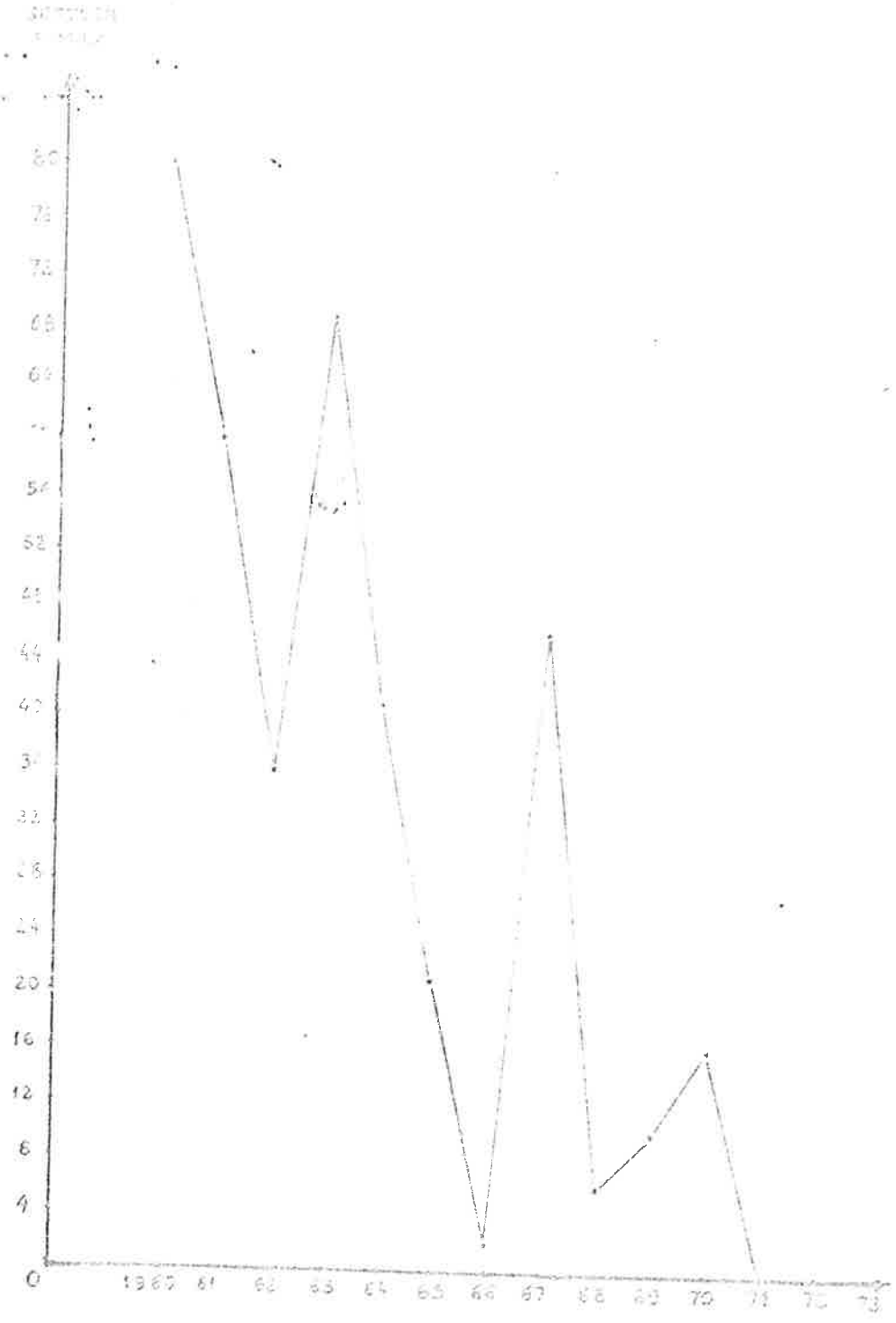

Figure 8. The distribution of settler families settl[illegible] n Shewaton area, by year.

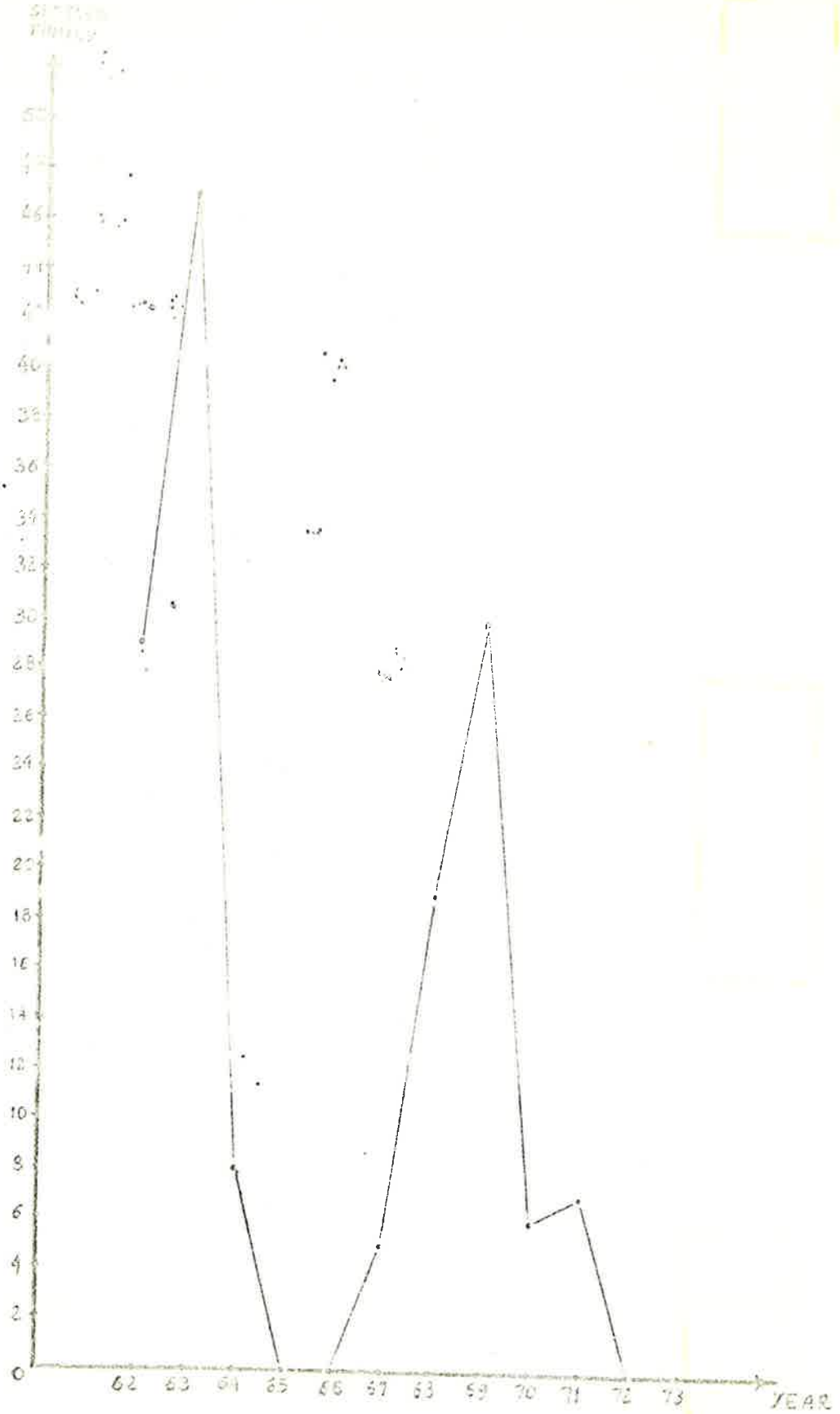

Figure 9. The distribution of settler families settled in Grish area, by year.