

付 属 資 料

1. 要請書
2. S/W
3. M/M
4. 主な収集資料リスト

REQUEST FOR TECHNICAL ASSISTANCE

*STUDY
ON
REHABILITATION AND RECLAMATION
OF
DEGRADED LANDS
IN
THE UPPER MIDDLEVELD
OF
SWAZILAND*

1999

*LAND USE PLANNING SECTION
MINISTRY OF AGRICULTURE AND CO-OPERATIVES
GOVERNMENT OF SWAZILAND*

Note

In 1996, the Government of Swaziland officially requested technical assistance from the Japanese government for the implementation of a study on the rehabilitation and reclamation of degraded lands in the Upper Middleveld of Swaziland.

Upon receipt and due consideration of the request, the Government of Japan requested further information regarding the land degradation problems in Swaziland and their impacts on sustainable development.

In relation to the study, JICA contracted (early 1999) a local consulting company for the identification of a sustainable land management program countering land degradation in Swaziland. The final report was submitted in April 1999.

The report provided information on the present land use planning conditions and land degradation in Swaziland and identified potentially sustainable natural resource projects countering land degradation in Swaziland.

The ultimate aim of the report was to provide a succinct analysis of the causes and extent of land degradation in Swaziland and to propose potential projects which can tackle the causes and impacts of rangeland degradation.

In July 1999, JICA started the "Mapping Project for Smooth Implementation of Development Plan in Swaziland". The first field work of the project entailed aerial photography and field survey works, and have already been done. The Project aims to meet not only the needs of map users but also those of organizations (including the Land Use Section) requiring latest aerial photos for the analysis of other significant issues. As these conditions are vital to the survey of land use and degraded conditions, the Project will definitely have a significant impact on the Study.

After assessing the priority and importance of the results of the study aforementioned, the Government of Swaziland requested the modification of previous project proposals from the Government of Japan for the coming fiscal year 2000. The succeeding sections are the compilation of proposals made in the past.

REQUEST FOR TECHNICAL ASSISTANCE

<u>PROJECT TITLE</u>	Study on Rehabilitation and Reclamation of Degraded Lands in the Upper Middleveld of Swaziland
<u>REQUESTING AGENCY</u>	Ministry of Agriculture and Co-operatives Land Use Planning Section
<u>SOURCE OF ASSISTANCE</u>	Government of Japan
<u>TYPE OF ASSISTANCE</u>	Development Study

1. PREFACE

In April 1999 a study to define a sustainable land management program countering land degradation in Swaziland conducted by JICA provided a variety of valuable information on land degradation. The study showed the following analyses of the past and present projects on land management and rehabilitation in Swaziland. The following are among the main reasons why these projects failed to achieve their set objectives:

- Insufficient community involvement
- Lack of coordination in program planning and implementation
- Too much emphasis on the technical aspects of the projects
- Unreasonable targets in view of local capabilities
- Lack of government involvement in implementing policy supported programs,
- Lack of a holistic approach in land management planning and implementation,
- Insufficient follow-up after project implementation
- Lack of ownership of projects and projects results,
- Land and boundary disputes between chiefs and communities,
- Lack of cooperation between communities,
- Lack of community training in rehabilitation programs and lack of skilled labor,
- Lack of community willingness to participate in development programs.

Given the above reasons, the Government of Swaziland considered the following as necessary and requested the assistance of the Japanese government for the implementation of the Study on the Rehabilitation and Reclamation of Degraded Lands in the Upper Middleveld of Swaziland (hereinafter called the "Study"). The Japanese government accepted the request.

- With projects having significant government involvement, attempts to subdue bureaucracy in the government system should be made as this retards project implementation
- Utilize existing NGO capacity for community project implementation
- Involve communities in project design and implementation
- Improve coordination between government departments, the Government and NGOs, and communities in all aspects of land management and degraded land rehabilitation activities
- Implement projects in a holistic manner to reflect national strategies and policies
- Tackle complex issues on communal land management in a flexible and systematic manner to find solutions to the complex socio-economic causes of land degradation,
- Encourage project designs that would enable the monitoring of studies to ensure their effective operation during and after the project is completed.

2. BACKGROUND AND JUSTIFICATION

(Agricultural Sector)

Government responsibility for the agricultural sector lies primarily with the Ministry of Agriculture and Co-operatives. The Ministry aims to continue to adhere to the broad sectoral policies laid down in the Agricultural Development Strategy of 1986. The policies mainly focus on:

- 1) Conservation and development of soil and water resources,
- 2) Self-sufficiency and stability in staple food production,
- 3) Creation of employment opportunities by promoting agribusiness,
- 4) Improvement of rural incomes,
- 5) Improvement of the management and conservation of the rangelands and promotion of forage production and utilization

In order to achieve these objectives, the Ministry will continue to promote the intensification of agricultural production by small-scale farmers on Swazi Nation Land (SNL). Although the performance of large farms and plantations on Title Deed Land (TDL) remains crucial to export growth and overall economic development in Swaziland, the increase in rural employment and income largely depends on the outcome of agriculture in SNL. Accordingly, the government will continue to concentrate its resources on SNL farmers whilst ensuring that such support will not negatively affect agricultural production on TDL.

However, increase in the number of degraded lands will hamper the achievement of these objectives.

(Topography)

Swaziland is located in the southeastern part of the African continent and it is bordered by the Republic of South Africa to the north, west and south and by Mozambique to the east side. The country occupies a total land area of about 17,364 km².

Physiographically, Swaziland is divided into four well-defined zones that run from north to south almost in the parallel belts. From west to east these zones are the Highveld, Middleveld, Lowveld and the Lubombo Plateau. Apart from the latitude, these zones significantly influence the climate and vegetation of the country.

(Land Degradation)

Land in Swaziland is mainly categorized into two types, Title Deed Land (TDL) which is privately developed and Swazi Nation Land (SNL) which is communal tenure held by the King in trust for the Swazi Nation. Total SNL covers 74 % of the country, while TDL covers 26 %, of which only 0.7 % is declared as urban area.

Environmentally, Swaziland is inadequately managed and its land and water resources are not used to their full potential. At the moment, a huge amount of the lands in SNL is highly degraded, a problem intensifying at an alarming rate. (The rate of erosion in Swaziland is considered the second highest in Africa.) The major causes of land degradation are:

- Population pressure leading to increased competition for the natural resource base; lack of alternative sources of livelihoods
- Poor socio-economic status
- Poor enforcement of laws and regulations with regard to land use
- Livestock farming / poor grazing management practices
- Inappropriate and uncontrolled burning
- Agricultural farming practices
- Forest encroachment
- Infrastructure depletion (roads, dams, etc.)
- Inappropriate settlements location

Despite the concern expressed over the last 50 years over declining range conditions and other land related environmental problems, there is no act or law governing the rational utilization and conservation of land, either in SNL or TDL. In the absence of a land policy and other supporting instruments, erosion is playing havoc on the country's environment and economy: catchments are degraded, dams silted, and palatable grasslands destroyed.

These situations pose a threat to the long-term productivity of the agricultural as a whole. The seriousness of the problem is apparent in the dominant role the agricultural sector plays in the economy and overall development prospects of Swaziland. Formerly the leading sector in terms of contribution to the GDP, it now comes second to the manufacturing sector.

The recent drought has demonstrated conclusively that farmers on SNL are more prone to crop failure and desertification than their TDL counterparts. This is largely because soil erosion and land degradation is more pronounced on SNL and the effects of draught are more severe on the eroded areas because the water holding capacity of the soil has been reduced.

(Upper Middleveld)

In the Upper Middleveld of Swaziland, a combination of inequitable land allocations leading to high population densities in specific areas, and poor farming methods, have led to declining productivity of grazing lands, falling crop yields and diminishing water supplies. These conditions are further aggravated by increases in livestock without a commensurate increase in land area for grazing.

Domestic subsistence in the use of trees for fuelwood, fencing and other purposes is a relatively minor cause.

Processes of over-cultivation, over-grazing, and deforestation lead to the land degradation. The loss of the soil contributes directly to a reduction in the total available land for crop and animal production. As a result, intense pressure is exerted on the remainder of the land to produce enough food and fodder for the human and livestock population.

The existing reports on the degraded land in Swaziland mention that the Upper Middleveld is the most seriously eroded and degraded zone, with more than two thirds of the rangelands in a condition that requires immediate action. In places there are signs of stabilization, but in most parts the erosion expansion trend is still strongly increasing. The erosion affects the land with the highest potential in the country, but several other zones, e.g. Highveld, Lower Middleveld are also under severe threat and need urgent measures to improve the management of the rangelands.

Therefore, the conduct of the Study was requested to revitalize these areas and to systematically and effectively improve land use conditions. Without a programmatic approach to land degradation, it is highly unlikely that the most serious environmental problem facing Swaziland today will be effectively addressed.

3. RELATED PROJECT

(Mapping Project for Smooth Implementation of Development Plan in Swaziland)

This Project commenced in July 1999 with the support of JICA. Aerial photography (1:30,000) covering the whole country and field surveys, e.g. GPS, leveling, were completed by early October 1999.

Although the final output and orthophoto maps (1:10,000) will be provided in 2001, the latest aerial photos and field survey data will help the study team curtail expenses and expedite the completion of the study. These will also be absolutely useful for the analysis of land use conditions and land degradation. Moreover, these will also facilitate and expedite the production of topographic maps at the

scale of 1:5,000 required for the Study.

(Improving Land Use on Swazi Nation Land)

In order to initiate changes in land use and demonstrate the impact of these changes on the development of an area of which the potential is presently underutilized, the Government in cooperation with UNDP and FAO carried out the project above from early 1996 until mid 1998.

On the basis of available data and adopted strategies for rational land use, the project developed a plan for the part of Upper Middleveld (Manzini-Ezulwini area) to rehabilitate land, reorganize land use and rearrange settlement, and implement land use changes in selected areas.

Several sites suitable for crop production have been identified based on the result of a variety of investigations and evaluation of the project. The selected sites will be the study areas of the Study. Therefore, it is needless to say that the project is fundamental and very important to the Study.

(Land Use Planning for Rational Utilization of Land and Water Resources)

An adequate information database on natural resources was set up through a FAO/UNDP/GOS (Government of Swaziland) project in 1994. Digital and tabular information is available on climate, physiography, soils, water resources, agroecological zoning, present land use, land tenure, land degradation and so on. The available information will be quite useful and effective for the Study.

(Sustainable Land Management Program Countering Land Degradation in Swaziland)

This study was commissioned by JICA in 1999. It has provided elaborate information on the status of land degradation and possible measures that can be undertaken. Strategies for implementing such measures are well articulated. The study also provided potential projects which can tackle the causes and impacts of rangeland degradation. According to the report of the study, this proposed study was prepared.

(National Action Program for combating Desertification in Swaziland)

Swaziland being party to the United Nations Convention to combat desertification

has prepared a National Action Plan to combat desertification. One of the strategies is the strengthening of institutions dealing with land utilization and the rehabilitation of degraded areas. This shows the importance of the project in the Government priorities and international undertakings.

(Formulation of a Land Policy for Swaziland)

This project was started in 1996 supported by British Overseas Development Agency. The draft policy has been developed and is currently being reviewed by the Cabinet. This policy will be the pillar of the proposed project.

4. THE GOAL OF THE STUDY

The goal of the Study is that degraded land is rehabilitated and returned to productive and sustainable use.

5. OBJECTIVES OF THE STUDY

The objective of the Study is to formulate an optimum plan on rehabilitation and reclamation of the degraded lands in the Upper Middleveld.

The main objectives of the Study are:

- 1) To formulate a detailed plan of the priority project(s),
- 2) To develop, test and demonstrate a pilot project for soil conservation and land rehabilitation with diversified profitable production systems according to the detailed plan,
- 3) To monitor and evaluate the simple and cost effective practical methods through the pilot project,
- 4) To mount campaigns on raising public awareness on sustainable methods of land utilization.
- 5) To assist the Government of Swaziland, in a joint effort with NGO(s) to develop community based capability to rehabilitate degraded land with appropriate conservation measures,
- 6) To enhance the capacity of the Land Use Planning Section to develop the Swazi Nation Land on a sustainable basis,
- 7) To transfer the technology in the course of the Study to the counterpart

personnel of the Government of Swaziland,

6. STUDY AREA

The proposed study areas were selected on the basis of a JICA study report (1999). Of the three study areas in the Upper Middleveld specified in the previous proposal (1996), one is from the Highveld in consideration of the location and the seriousness of the degradation in this area. Several projects have been carried out in these areas with the participation of the communities, NGOs, donor countries and international organizations. Although not all efforts were successful, the results provided a good basis for the continuation of existing projects and the planning and implementation of new activities. The location and general description of these areas are as follows:

Area 1: Khukanyeni (Upper Middleveld)

The Sigombeni-Khukanyeni-Mangcineni area is located north of Manzini and south of the Mbuluzi River. The area is characterized by severe erosion in the grazing section, particularly in the Mangcineni plain.

The extensive distribution of deep red soils highly favorable for crop production has led to the development of wide arable fields. However, large areas suitable to crop production are either used as communal grazing lands or severely eroded.

The area most suitable for the Study is the Mangcineni plain and its immediate surroundings. This area is one of the areas given priority in the "Improving Land Use on Swazi Nation Land Project" of FAO/UNDP/GOS.

JICA implemented a Rural Water Supply Project in this area in the past.

Area 2: Mhlosheni (Upper Middleveld)

The Mhlosheni-Ezilhoteni-Galile area is located southeast of Nhlngano, in the southern part of the country. The area is characterized by severe erosion, particularly gully erosion, in the grazing section.

The area is made up of different types of soil including deep red soils suited to crop production. In general land is either used for cultivation of pasturage.

The area covered by the Ezilhoteni and Galile communities is suitable for the Study.

Area 3: Mankayane-Ngwempisi (Highveld)

Mankayane-Ngwempisi is located southwest of Manzini, in the western part of the country. It is characterized by undulating valleys and steep hills. There is severe sheet and gully erosion in the grazing areas, especially in the hills to the north of Mankayane and in the valley on both sides of Ngwempisi River, particularly around the dipping tank.

The area is made up of different types of soil and land use varies from communal grasslands on the lower valley slopes along the rivers and on the higher hillsides, arable land mainly on the medium slopes, and forest on the steeper slopes. The arable and forest areas show very little erosion.

It is evident that the communities need to be better organized and trained to be able to successfully participate in projects, especially in joint undertakings. Several projects have initially been implemented in a satisfactory way, but failed in the end through a lack of continuity and follow up. NGOs need to be involved in reactivating and continuing existing programs, and coordinate these with new initiatives. The communities require support in the coordination of their efforts to achieve land rehabilitation and improved land management systems.

7. DURATION OF THE STUDY

The duration of the Study shall be a total of 24 months in total.

8. SCOPE OF THE STUDY

The Study will be broadly divided into following two stages:

- 1) Phase 1 (Model area selection)
- 2) Phase 2 (Model project implementation & Degraded land Restoration Plan formulation)

Phase 1

a) Review & Analysis of Studies, Plans and Services Relevant to Land Use

Review and analysis of studies, plans and services relevant to income improvement, living environment improvement, environmental protection, land use, agricultural development, and national development that have been formulated by other donors, NGOs, Government of Swaziland, and other relevant agencies.

b) Analysis of Statistical Data

Analysis of every existing statistical data (general issues, living environment, poverty, livestock industry, forestry, environment, etc.), topographic map (1:50,000), and aerial photos (taken under the ongoing JICA mapping project), in preparation for the selection of model areas.

c) Model Area Selection

The following will be carried out for the selection of one model area from every target area.

- Extraction of Candidate Model Areas

The results of a) and b) above will be used as a basis for the extraction of a total of 2 to 3 candidate model areas (one in each target area) with due consideration of the features of the target areas.

- Supplementary Field Survey

Supplementary field surveys will be carried out to understand the socio-cultural background, administration, natural environment, land use, soil, agriculture, livestock industry, services/programs that overlap with other assistance agencies, etc., in the candidate model areas. These will be used to confirm the suitability of these candidate areas as model areas.

- Narrowing Down of Candidates and Final Selection of Model Areas

The results of the above will be comprehensively assessed for the selection of one model area from every target area for the Degraded land Restoration Plan. In the selection, discussions will be carried out with the counterpart. The Study Team will ensure impartiality and clarity in the reasons for the model area selection.

d) Field Survey in 3 Model Areas

The following field surveys will be carried out in the selected 3 model areas to determine resident needs and prevailing problems. Aerial photos will be used during the field survey. Resident participation in problem solving will be considered.

- Survey on Natural Environment

Surveys on geography, meteorology, hydrology, ecosystem, land use, and environmental problems (forests, soil, water quality, domestic waste management, etc.).

Points of consideration:

Emphasis will be placed on understanding felling and soil erosion conditions, and natural resource protection and management methods will be clarified. Land use conditions will be determined in detail. Countermeasures suited to the area will be studied to improve land use conditions in areas where lands are over-exploited.

- Survey on Social Environment

Surveys on the social structure, local government, land ownership, decision-making process, culture, tradition, history, religion, ideology, ethnic structure, community, local NGOs, farmers' organization, gender issues, etc., in the model area.

Points of consideration:

Considerations will be placed on the social structure in the field survey and planning stages, and extra care will be taken so as not to incur divisions in the community.

- Survey on Agriculture and Livestock Industry

Surveys on farm management, cultivation, livestock, orchards, pasturage, agricultural produce/livestock distribution (business transactions, pricing, intermediaries, consumer (area), marketing infrastructure, etc.), agricultural/livestock support services (technological diffusion, etc.), production materials (fertilizer, agricultural chemicals, machinery, etc.), irrigation system, disease infecting insects.

Points of consideration

Survey on pasturage, which is excessively carried out, particularly with regards to the restriction or possible conversion to agriculture. Detailed studies on crop cultivation, processing, preservation methods, and shipping methods, to determine the possibility of improving profitability.

- Survey on Living Environment

Surveys on health and sanitation (health services, public health system, infrastructure), residential environment (toilets, kitchen stove, etc.), domestic

water use, access roads, employment conditions, livestock and farming economy (revenue/expenditure, income from other sources), and rural credit system.

e) Mapping

Mapping will be carried out simultaneous with the above field surveys to clarify the topography and location of water resources, villages and facilities in the model areas, and prepare a detailed pilot project plan. Mapping will be at a scale of 1:5,000, using the aerial photos (1:30,000) and the results of the aerial triangulation/ground survey carried out under the JICA mapping project.

Phase 2

a) Study on Pilot Project Details

Study on pilot project details in accordance with the results of preceding studies and the map produced. A plan suited to pilot area conditions will be prepared after discussions with the residents on funding, pilot project term, and technical skills and equipment. The agreement of relevant bodies (residents, study team, counterpart) will be required as well in finalizing the details of the pilot project.

b) Pilot Project Implementation

Implement pilot project in accordance with plan stipulated in a) above, and with the cooperation of a local NGO. Establish close relationship with residents and related agencies to ensure the effective handling of relevant issues even after the completion of the project, when the residents become the main operatives of the system.

c) Pilot Project Monitoring & Evaluation

Regular monitoring of progress of the project and resident activities, and evaluation of the works to gain feedback beneficial to future projects.

d) Degraded land Restoration Plan Formulation

Formulate a degraded land restoration plan for (each) of the 3 target area based on the results of field surveys in Phase 1 and the pilot project in Phase 2. The plan will be made up of 3 components – income improvement, living environment improvement, environmental protection – mainly focusing on the following:

- Income Improvement

Promote agricultural development (installation/construction of small scale irrigation system, technical diffusion, measures against disease-infecting insects,

introduction of new crops), promote rural small scale industries.

- Improvement of Living Environment

Improve public health and sanitation services, secure domestic water supply, improve and construct access roads, carry out soil erosion control work, install/construct drainage canals/storage tanks (formulate detailed implementation plan – depending on the scale of the improvement plan – to gain assistance from international organizations and donor countries)

- Environmental Protection

Formulate land use regulations and forest and soil conservation plans

e) Project Illustrations

As a tool that would enable the residents to independently carry out sustainable rural development, illustrations will be prepared to make the contents of the development plan formulated in c) above easy for the residents to understand.

f) Formulation of Degraded land Restoration Guidelines

Systematize all development methods firmly established through the field surveys and the pilot project planning and implementation activities, and summarize land restoration concepts and methods to enable their application in other areas as well. The guidelines should cover the following issues.

- Arrangement of indicators for prioritization (area, fields) for development and conservation projects, and analytical methods
- Summary of land restoration concept in the 3 target areas based on specific precedents (field survey, pilot project implementation, degraded land restoration planning) in the model area
- Arrangement of items relevant to the formulation and implementation of feasible development plans by the residents
- Study on the methods for the formulation and implementation of public undertakings and plans.
- Formulation of institutional support plan
- Arrangement of monitoring evaluation methods

9. TRANSFER OF TECHNOLOGY

During the course of the Study, transfer of technology and training will be provided to the counterpart experts in the following fields:

- 1) Plan and design of communal land management
- 2) Establishment of monitoring points and survey methodology
- 3) Marketing and awareness raising for communities

The above transfer of technology will be carried out in the form of an on-the-job training and a seminar over the course of the Study. Overseas training will also be included in the program.

10. TARGET BENEFICIARIES

The target group of beneficiaries intended to benefit from the proposed study are the communities in the rural areas. The direct recipients will be initially the communities in the selected pilot areas, but this will be expanded in the future to include communities from most of country who wish to apply for assistance. The Study aims to rehabilitate degraded land and return the land to productive use for the benefit of the whole community. Improving land productivity and developing sustainable land will have a long-term positive benefit for rural livelihoods.

11. EXPERT REQUIRED FOR THE STUDY

The following experts and engineers shall be required for the execution of the Study.

- Rural Development Expert
- Land Use Planner
- Soil Conservation Expert
- Rural Sociologist
- Agricultural Economist
- Community Development Expert
- Topographic Survey Expert
- Environmentalist
- Institutional Expert

The required manpower input will be 80 men / months in total.

12. JUSTIFICATION OF JAPANESE TECHNICAL COOPERATION

Japan is known as one of the most advanced countries in agriculture field. The implementation of the Study with Japanese technical assistance is foreseen to be immensely valuable to the Land Use Planning Section in its sustainable management of the lands.

13. UNDERTAKING OF THE GOVERNMENT OF SWAZILAND

1. To facilitate the smooth running of the Study, the Government of Swaziland shall take necessary measures:
 - a) To ensure the safety of the Japanese study team,
 - b) To permit the members of the Japanese study team to enter, leave and sojourn in Swaziland for the duration of their assignment therein, and exempt them from foreign registration requirements and consular fees,
 - c) To exempt the members of the Japanese study team from taxes, duties and other charges on equipment, machinery and other materials brought into Swaziland for the conduct of the Study.
 - d) To exempt the members of the Japanese study team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Japanese study team for their services in connection with the implementation of the Study,
 - e) To provide necessary facilities to the Japanese study team for remittance as well as utilization of the funds introduced into Swaziland from Japan in connection with the implementation of the Study;
 - f) To secure permission for entry into private properties or restricted areas for the conduct of the Study,

g) To secure permission for the Japanese study team to take necessary data and documents (including maps and photographs) related to the Study out of Swaziland to Japan,

h) To provide medical services as needed, whose expenses will be charged to members of the Japanese study team.

2. The Government of Swaziland shall bear claims, if any, against members of the Japanese study team resulting from, occurring in the course of, or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Japanese study team.

3. The Ministry of Agriculture and Co-operatives shall act as counterpart agency to the Japanese study team.

4. The Ministry of Agriculture and Co-operatives shall act as the coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.

5. The Ministry of Agriculture and Co-operatives shall, at its own expense, provide the Japanese study team with the following, in cooperation with other organizations concerned:

a) Available data and information related to the Study,

b) Counterpart personnel,

c) Standard office spaces with necessary equipment in Mbabane.

d) Credential and identification card.

14. UNDERTAKING OF JICA

For the implementation of the Study, JICA shall take the following measures:

1. To dispatch, at its own expense, study teams to Swaziland,
2. To pursue technology transfer to the Swaziland counterpart personnel in the course of the Study.

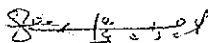
15. OTHERS

JICA and Ministry of Agriculture and Co-operatives shall consult with each other in respect of any matter that may arise from or in connection with the Study.

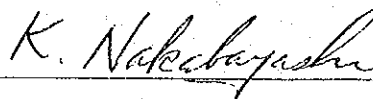
2. S/W

Scope of Work
for
the Study on
Improvement of Rural Environment in Degraded Land
in the Kingdom of Swaziland
agreed upon between
Ministry of Agriculture and Co-operatives
and
Japan International Cooperation Agency

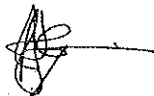
Mbabane August 23, 2000



Mr. Noah Nkambule
Principal Secretary
Ministry of Agriculture and Co-operatives



Mr. Kazuo Nakabayashi
Leader
The Preparatory Study Team
Japan International Cooperation Agency



Mrs. Joyce T. Dlamini
Under Secretary
Ministry of Economic Planning and Development

I. INTRODUCTION

In response to the request of the Government of Swaziland (hereinafter referred to as "GOS"), the Government of Japan decided to conduct the Study on Improvement of Rural Environment in Degraded Land in the Kingdom of Swaziland (hereinafter referred to as "Study") in accordance with the relevant laws and regulations in force in Japan.

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of GOS.

The present document sets forth the scope of work with regard to the Study.

II. OBJECTIVES OF THE STUDY

The objective of the Study is to facilitate rehabilitating degraded land and realizing sustainable land use in the Highveld and Upper Middleveld. The following items shall be pursued in the course of the Study for the attainment of the objective;

- (1) to formulate a master plan on rehabilitation and reclamation of the degraded lands in the three (3) target areas through : (a) generating income, (b) improving living conditions and (c) conserving natural environment ;
- (2) to build up the coherent land management structure thorough coordinating government ministries, NGOs and traditional communities in the course of implementation of pilot projects;
- (3) to formulate degraded land improvement guidelines which can be applied to Swazi Nation Land (SNL) in the Highveld and Upper Middleveld ; and
- (4) to carry out technology transfer to Swazi counterpart personnel through on-the-job training in the course of the study.

III. STUDY AREA

The study area shall cover Swazi Nation Land (SNL) in the Highveld and Upper Middleveld. The total area would be approximately 4,650km², and the location map is attached as ANNEX-1.

IV. SCOPE OF THE STUDY

In order to achieve the objectives above, the Study shall consist of the following items.

[Phase 1]

1. Collection and analysis of existing data, information and indexes
2. Review of "the Study to Define a Sustainable Land Management Programme Countering Land Degradation in Swaziland" conducted by JICA in 1999
3. Complementary survey in the Study area
 - 3.1. To conduct complementary survey on land use, land degradation and socio-economic condition

N.A.
TJD

K.N

3.2. To analyze the result of Clause 3.1 and identify main problems / constraints

4. Field survey in the following three (3) target areas

Area 1 : Kukhanyeni Inkhundla (especially in Sigombeni, Kukhanyeni and Mangcineni)

Area 2 : Shiselweni I Inkhundla (especially in Mhlosheni, Ezikhoheni and Galile)

Area 3 : Ngwempisi Inkhundla (especially in Mankayane and Ngwempisi)

The location of the target areas are shown in ANNEX-2, 3 and 4.

4.1 To conduct the field survey on the following items:

(1) Natural environment

- meteorology
- topography
- geology
- soil
- forest resources
- water resources
- land use
- others

(2) Social environment

- history, tradition, culture and religion
- rural social structure
- house-hold economy
- rural credit
- gender related issues
- others

(3) Livestock, farming and forestry

- pasturage and farm management
- agricultural and livestock production
- cropping pattern
- marketing system and infrastructure
- agroforestry system
- forestry management
- technical assistance and training activities
- others

(4) Living conditions

- access roads
- water supply
- health and sanitation services
- others

(5) Others

4.2 To analyze the result of Clause 4.1 and identify problems / constraints and solutions

5. Preparation of implementation plan of pilot projects conducted in Clause 7.

6. Tentative formulation of a master plan

[Phase 2]

7. Implementation of pilot projects in the target areas

8. Monitoring and evaluation of pilot projects

K.N

11/11
TJA

9. Final formulation of the master plan based on the result of pilot projects
10. Formulation of degraded land improvement guidelines for the Highveld and Upper Middleveld

V. STUDY SCHEDULE

The Study shall be carried out in accordance with the Tentative Work Schedule attached as ANNEX-5.

VI. REPORTS

JICA shall prepare and submit the following reports, written in English, to the GOS ;

- | | |
|------------------------|--|
| Inception Report | : Twenty (20) copies at the commencement of the Study |
| Progress Report (1) | : Twenty (20) copies at the end of the first field work in Swaziland |
| Interim Report | : Twenty (20) copies at the commencement of the second field work in Swaziland |
| Progress Report (2) | : Twenty (20) copies at the end of the second field work in Swaziland |
| Draft Final Report (1) | : Twenty (20) copies at the end of Phase I |
| Progress Report (3) | : Twenty (20) copies at the end of the third field work in Swaziland |
| Progress Report (4) | : Twenty (20) copies at the end of the fourth field work in Swaziland |
| Draft Final Report (2) | : Twenty (20) copies at the commencement of the fifth field work in Swaziland |
| | Swazi side shall submit written comments on the Draft Final Report (2) to JICA in one (1) month after the receipt of the report. |
| Final Report | : Forty (40) copies in two (2) months after the receipt of comments on the Draft Final Report (2) from the Swazi side |

VII. UNDERTAKING OF THE GOS

1. To facilitate the smooth conduct of the Study, GOS shall take necessary measures, as listed below;

- (1) Secure the safety of the Study Team,
- (2) Permit the members of the Study Team to enter, leave and sojourn in Swaziland for the duration of their assignment therein, and exempt them from alien registration requirements and consular fees,
- (3) Exempt the members of the Study Team from taxes, duties and other charges on equipment, machinery and other materials to be brought into and out of Swaziland for the conduct of the Study,
- (4) Exempt the members of the Study Team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Study Team for their services in connection with the implementation of the Study,
- (5) Provide necessary facilities to the Study Team for remittance as well as utilization of the funds introduced into Swaziland from Japan in connection with the implementation of the Study,
- (6) Secure permission for the Study Team(s) to enter private properties or restricted areas for the conduct of the Study,
- (7) Secure permission for the Study Team to take all data and documents, including photographs and maps, relevant to the Study out of Swaziland to Japan, and
- (8) Provide medical services as needed. Its expenses will be chargeable to members of the Study Team.

2. GOS shall bear claims, if any arises, against members of the Study Team resulting from, occurring in the course of, or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Study Team.

3. Ministry of Agriculture and Co-operatives (hereinafter referred to as "MOAC") shall act as the counterpart

K, N

TJD

agency to the Study Team and also as the coordinating body in relations with other governmental and non-governmental organizations for the smooth implementation of the Study.

4. MOAC shall, at its own expense and in cooperation with other organizations concerned, provide the Study Team with the following:

- (1) Available data and information related to the Study,
- (2) Counterpart personnel,
- (3) Suitable office space with necessary equipment in Mbabane, and,
- (4) Credentials or identification cards

VIII. UNDERTAKING OF JICA

For the implementation of the study, JICA shall take the following measures;

- (1) Dispatch, at its own expense, study teams to Swaziland, and,
- (2) Pursue technology transfer to the Swazi counterpart personnel in the course of the study.

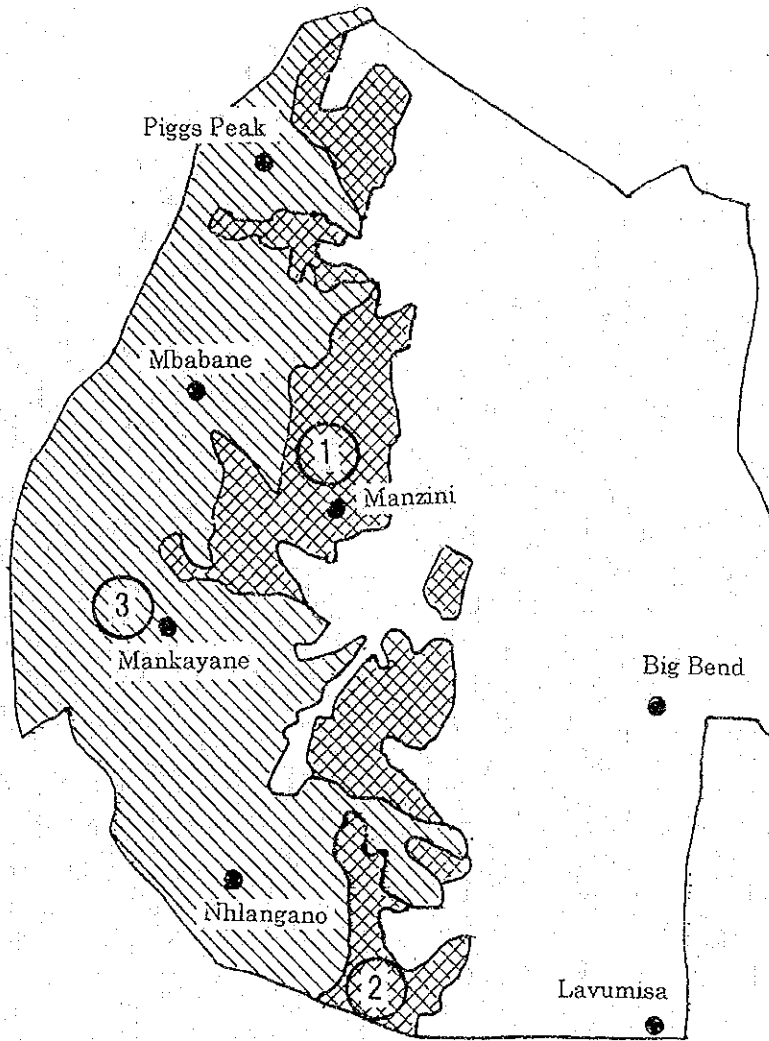
IX. CONSULTATION

JICA and MOAC shall maintain constant communication and consult with each other in respect of any matters that may arise from or in connection with the Study.

K.N.

M.S.
T.J.D.

ANNEX 1



STUDY AREA



Highveld



Upper Middleveld

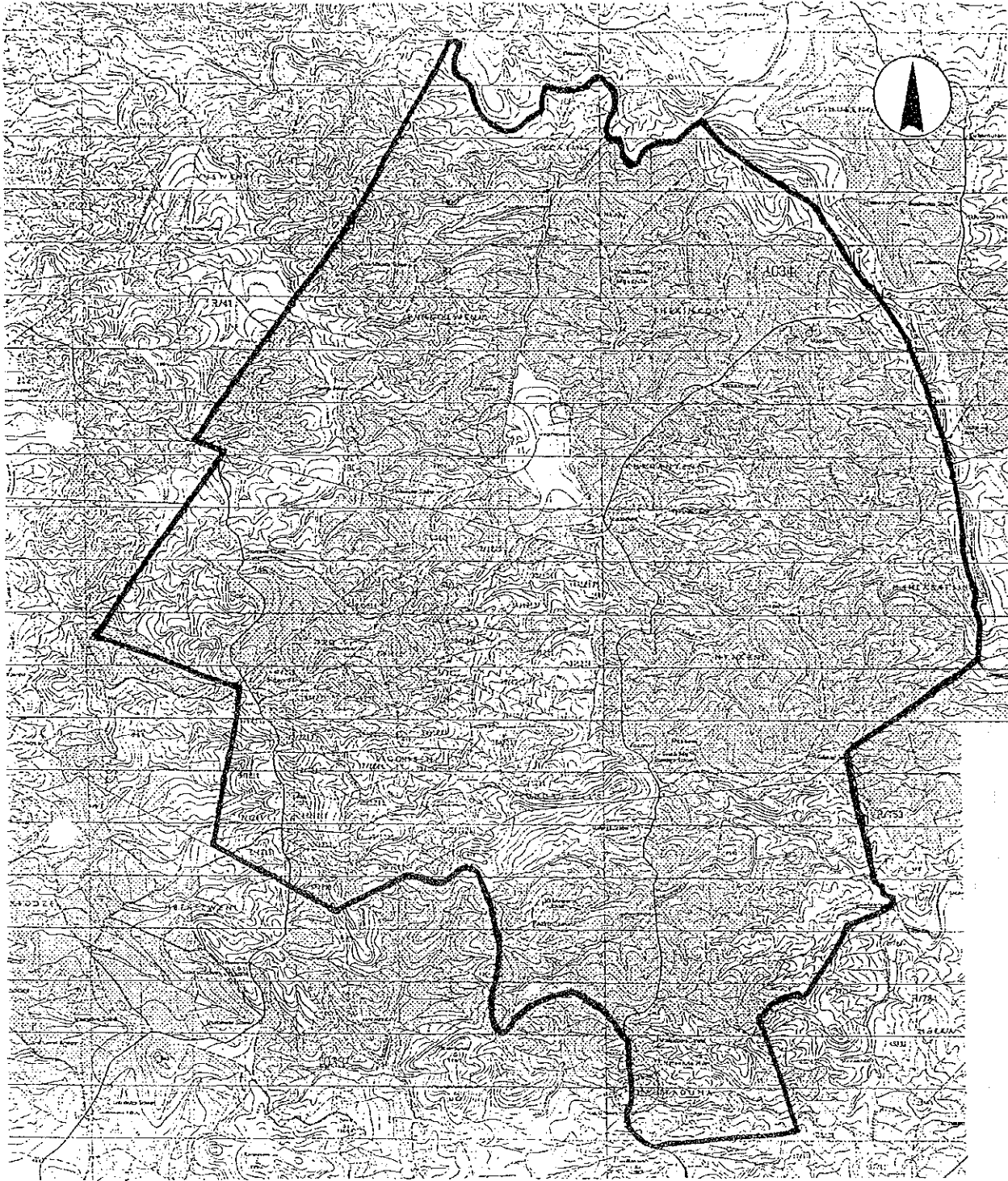
TARGET AREA



* Swazi Nation Land (SNL) Only

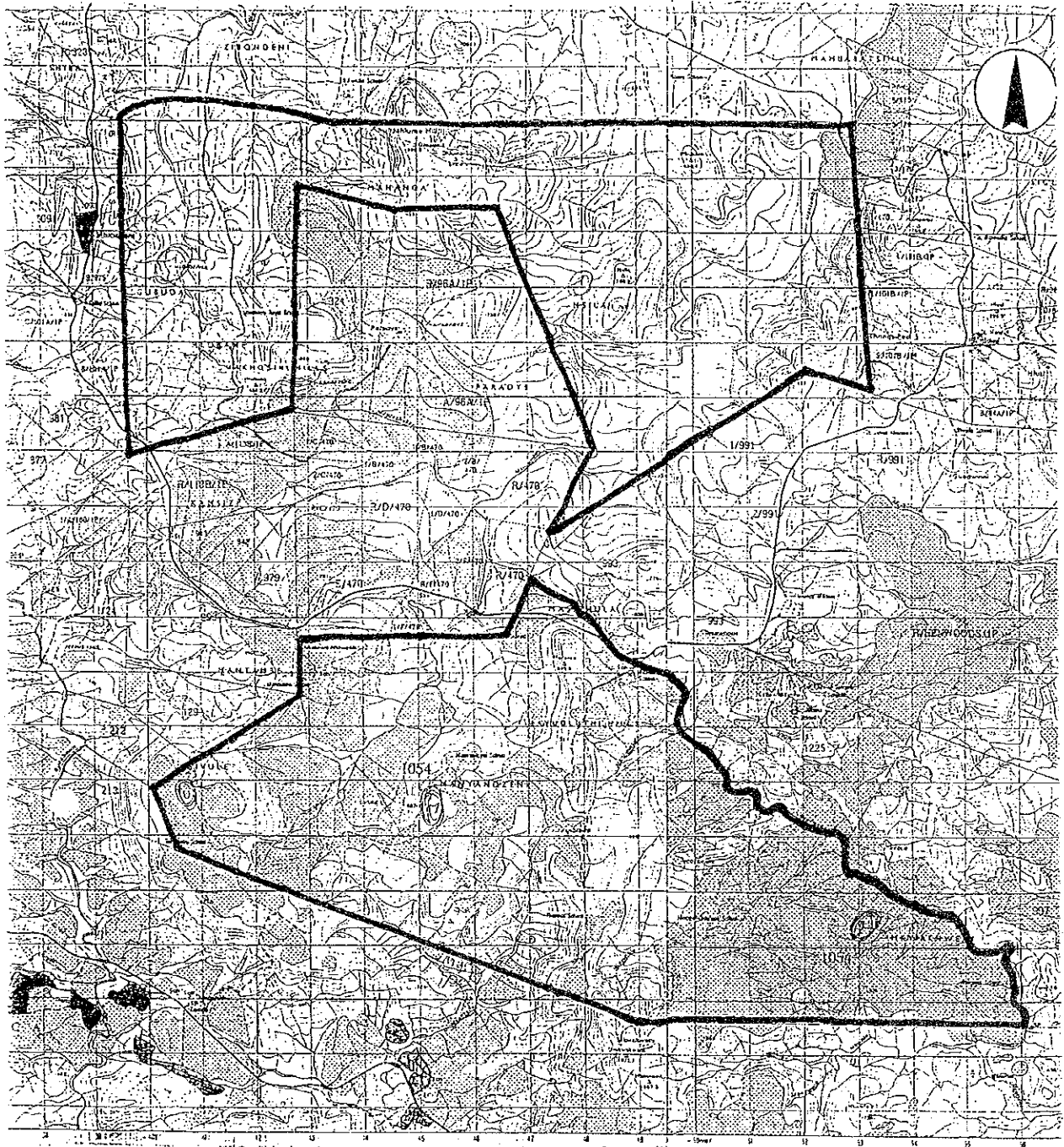
W.K.
TJD

K.N



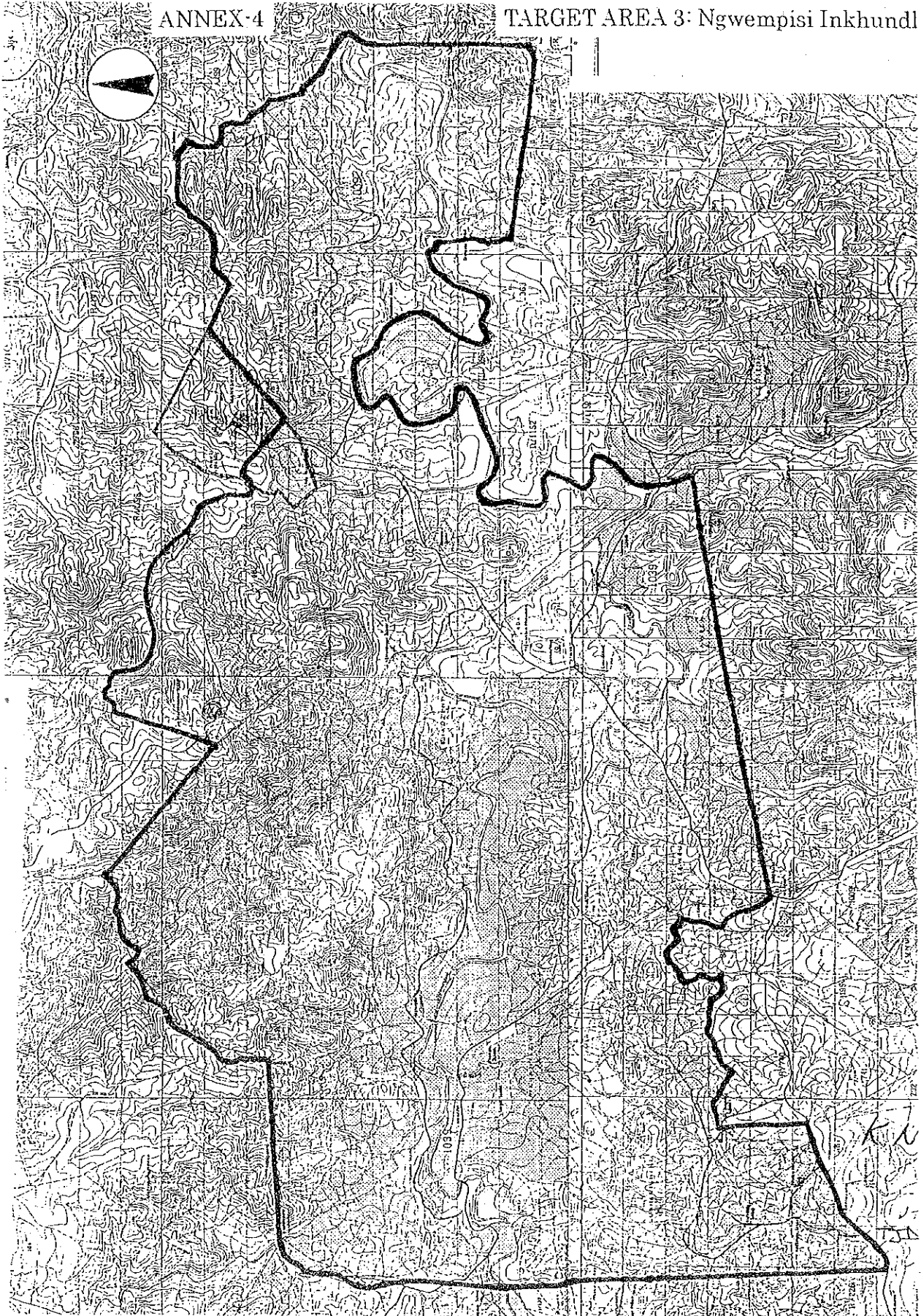
K.N.

TJD



K.N.

TJA



TENTATIVE SCHEDULE

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Item																					
Works in Swaziland																					
Works in Japan																					
Phase	Phase 1										Phase 2										
Report	▲ Ic/R			▲ P/R(1)			▲ It/R					▲ P/R(2)									▲ Df/R(1)

Month	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
Item																					
Works in Swaziland																					
Works in Japan																					
Phase	Phase 1										Phase 2										
Report																					

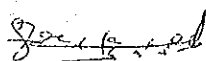
(Remarks) Ic/R : Inception Report P/R(3) : Progress Report (3)
 P/R(1) : Progress Report (1) P/R(4) : Progress Report (4)
 It/R : Interim Report Df/R(2) : Draft Final Report (2)
 P/R(2) : Progress Report (2) F/R : Final Report
 Df/R(1) : Draft Final Report (1) © : Comments on Df/R(2) by Swazi side

K.N.
TJD

3. M/M

Minutes of Meetings
on
Scope of Work
for
the Study on
Improvement of Rural Environment in Degraded Land
in the Kingdom of Swaziland
agreed upon between
Ministry of Agriculture and Co-operatives
and
Japan International Cooperation Agency

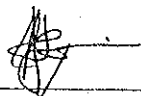
Mbabane August 23, 2000



Mr. Noah Nkambule
Principal Secretary
Ministry of Agriculture and Co-operatives



Mr. Kazuo Nakabayashi
Leader
The Preparatory Study Team
Japan International Cooperation Agency



Mrs. Joyce T. Dlamini
Under Secretary
Ministry of Economic Planning and Development

I. INTRODUCTION

In response to the request of the Government of the Kingdom of Swaziland (hereinafter referred to as "GOS"), the Preparatory Study Team headed by Mr. K. NAKABAYASHI (hereinafter "the Team") was dispatched to Swaziland by the Government of Japan through the Japan International Cooperation Agency (hereinafter "JICA") from August 16 to August 24, 2000 for the purpose of discussing and confirming the Scope of Work for "the Study on Improvement of Rural Environment in Degraded Land in the Kingdom of Swaziland" (hereinafter "the Study").

The team had discussion with the officials from Ministry of Agriculture and Co-operatives (hereinafter "MOAC"). As a result of the discussion, both sides agreed on the Scope of Work for the Study.

The following are the main issues discussed and agreed upon by both sides. The list of participants in the meeting is attached as ANNEX.

II. RESULTS OF DISCUSSION

1. Title of the Study

Both side agreed that the title of the Study should be changed from "the Study on Rehabilitation and Reclamation of Degraded Lands in the Upper Middleveld of Swaziland" into "the Study on Improvement of Rural Environment in Degraded Land in the Kingdom of Swaziland", because; (1) the Study should be implemented taking aspects of generating income and improving living conditions into consideration, and (2) the Study area would cover the Highveld and the Upper Middleveld.

2. Pilot Projects

Both sides agreed that pilot project areas would be selected within each target area, and the detailed contents and methods of the pilot projects would be examined through the participatory survey during the fieldwork in Phase 1.

Both sides confirmed that the objectives of pilot projects are; (1) to verify the tentative master plan in order to formulate more realizable and practical master plan, and (2) to build up the coherent land management structure by government ministries, NGOs and traditional communities, aiming at the sustainability of project implementation.

3. Mapping

Both side agreed that mapping for pilot project areas would be carried out before formulating implementation plan of pilot projects. The topographic map would be produced at a scale of 1:5,000.

4. Coordination Committee

Both sides agreed that the Coordination Committee would be established prior to the start of the Study for the smooth and efficient implementation of the Study. The Coordination Committee would be composed of

K.N.

N.S.
TJD

the following agencies;

- Ministry of Agriculture and Co-operatives
- Ministry of Economic Planning and Development
- Deputy Prime Minister's Office
- Ministry of Tourism, Environment and Communication
- Ministry of Natural Resources and Energy
- JICA Study Team

5. Experts Required for the Study

The Swazi side requested that the Study team should include the experts of land use planning, soil conservation, range management, agricultural economy, forestry, rural sociology, community development, environment and institutional development. The Team explained that the fields of the Study team members could be decided by the Government of Japan (hereinafter referred to as "GOJ") taking the request of GOS into consideration. The Swazi side agreed on it.

6. Counterpart Personnel

Both sides agreed that MOAC should take responsibility for assigning necessary number of qualified counterpart personnel prior to the start of the Study.

7. Necessary Equipment and Facilities for the Study

The Swazi side promised to provide the Study Team with desks, chairs and the access to telephone in suitable office space in Mbabane.

The Swazi side requested that adequate number of vehicles and a photocopy machine for the Study should be provided by GOJ. The Study team promised to convey the request to the GOJ for consideration.

8. Counterpart Training in Japan

The Swazi side requested the counterpart training in Japan for an effective technology transfer. The Study team promised to convey the request to the GOJ for consideration.

9. Final Report

Both sides agreed that the final report of the Study would be made open and available to the public.

K. N.

U. S.
T. S.

LIST OF PARTICIPANTS

1. Swazi side

Ministry of Agriculture and Co-operatives

Mr. Bongani Masuku	Soil Scientist, Land Use Planning Section
Mr. Bongani Magongo	Soil Conservation Engineer, Land Use Planning Section
Mr. George Ndlangamandla	Senior Agricultural Officer (extension), Agriculture Department
Mr. Brenton Xaba	Acting Senior Animal Husbandry Officer, Veterinary Department
Ms. Menzi Dlamini	Assistant Rural Sociologist, Economic Planning and Analysis Section

2. Japanese side

Preparatory Study Team

Mr. Kazuo Nakabayashi	Leader / Soil
Mr. Takashi Okamoto	Land Use
Mr. Norihisa Hayashi	Grazing / Grazing Land
Ms. Atsuko Nonoguchi	Rural Community / Organization
Mr. Kazuhisa Kato	Environment / Forestation
Ms. Suzuka Maruyama	Project Planning

K.N.

Nish

TJD

資料収集リスト (収集資料 / 専門家作成資料)

(収集/作成資料)
平成 年 月 日作成

主管部長	文書管理部長	主管課長	情報管理課長	技術情報課長	図書館受入員

番号	形態(図書・ビデオ、地図、写真等)	取得資料	専門家作成資料	JICA作成資料	特注	収集元名称又は発行機関	取組区分	図書館記入欄
1	複写	○				FAO/UNDP	JR・CR()・SC	
2	複写	○				FAO/UNDP	JR・CR()・SC	
3	複写	○				FAO/UNDP	JR・CR()・SC	
4	複写	○				FAO/UNDP	JR・CR()・SC	
5	複写	○				FAO/UNDP	JR・CR()・SC	
6	図書	○				Ministry of Agriculture and Co-operatives (MOAC)	JR・CR()・SC	
7	複写	○				MOAC	JR・CR()・SC	
8	複写	○				UNDP	JR・CR()・SC	
9	図書	○				Ministry of Economic Planning and Development	JR・CR()・SC	
10	複写	○				FAO/UNDP	JR・CR()・SC	
11	複写	○				MOAC	JR・CR()・SC	
12	複写	○				MOAC	JR・CR()・SC	

資料収集リスト (収集資料 / 専門家作成資料)

(収集/作成資料)
平成 年 月 日作成

主幹部長	文藝管理部長	主幹部長	情報管理課長	技術情報課長	図書館委人

番号	形態 (図書・ビデオ・地図・写真等)	収集資料	専門家作成資料	JICA作成資料	種別	収集先名称又は発行機関	取扱い区分	図書館記入欄
13	Appraisal Report, Smallholder Agricultural Development Project, Volume II: Working Papers, April, 1993	○				IFAD	JR・CR()・SC	
14	Draft of the National Land Policy for the Cabinet Workshop 4th May, 1999	○				MOAC	JR・CR()・SC	
15	Reconnaissance Study Usutu and Ngwavuma River Basins, Technical Report No.5, Land Tenure, Swaziland Government, Swaziland Household Income and Expenditure Survey 1995, Main Report	○				WLP/PU Consultants	JR・CR()・SC	
16	Improving Land Use on Swazi Nation Land, Socio-economic Survey on Community Resource and Attitudes, The Case of Vusweni, Kukhanyeni, Kwatuseni and Ezulwini, Final Document, 1998	○				Central Statistical Office	JR・CR()・SC	
17	Reducing Poverty through Shared Growth, Poverty Policy Study Overview Report, January 2000	○				FAO/UNDP	JR・CR()・SC	
18	Swaziland: Poverty Assessment by the Poor, Report on Participatory Poverty Assessment, August, 1997	○				World Bank	JR・CR()・SC	
19	Gender and Women's Issues, Position Paper and the Swaziland Platform for Action for Equality, Development and Peace, 1996	○				Ministry of Economic Planning and Development	JR・CR()・SC	
20	National Forest Green Paper (Draft), 2000	○				Ministry of Home Affairs	JR・CR()・SC	
21	Forest resource Assessment 1999 (Final Draft), 2000	○				Ministry of Agriculture and Co-operatives/Forestry Section (MOAC/FS), Danish Cooperation for Environment and Development (DANCED), Environmental Consulting Services (ECS)	JR・CR()・SC	
22	Forest Policy Project 2000, 2000	○				MOAC/FS, DANCED, Danish Rural Development Consultants (DARUDEEC)	JR・CR()・SC	
23	Forest Policy Project 2000, 2000	○				MOAC/FS, DANCED	JR・CR()・SC	

資料収集リスト (資料収集 / 専門家作成資料)

(収集/作成資料)
平成 年 月 日作成

主幹部長	文書管理部長	主管課長	情報管理課長	技術情報課長	図書接受入口

番号	形態(図書・ビデオ・写真等)	収集資料	専門家作成資料	JICA作成資料	ノート	収集先名称又は発行機関	収集区分	図書記入欄
24	写真	○				MOAC/F.S, DANCED, DARUDEC	JR・CR()・SC	
25	写真	○				MOAC/F.S, DANCED, DARUDEC	JR・CR()・SC	
26	写真	○				MOAC/F.S, DANCED, DARUDEC	JR・CR()・SC	
27	複写	○				Swaziland Environment Authority	JR・CR()・SC	
28	複写	○				Swaziland Environment Authority	JR・CR()・SC	
29	複写	○				Swaziland Environment Authority	JR・CR()・SC	
30	図書	○				Swaziland Environment Authority	JR・CR()・SC	
31	図書	○				Swaziland Environment Authority	JR・CR()・SC	
32	複写	○				Ministry of Tourism, Environment and Communications	JR・CR()・SC	
33	複写	○				Vakakis International S. A.	JR・CR()・SC	
34	図書	○				Coordinating Assembly of NGOs (CANGO)	JR・CR()・SC	
35	地図	○				The Surveyor General's Office	JR・CR()・SC	
36	航空写真	○				The Surveyor General's Office	JR・CR()・SC	
37	地図	○				MOAC	JR・CR()・SC	

資料収集リスト (収集資料 / 専門家作成資料)

主管部長	文書管理 課長	主管課長	情報管理 課長	技術情報 課長	図書解受 人日

番号	形態 (図書・ 電子書・地 図・写真等)	収集資料	専門家作 成資料	JICA作成資 料	注	収集先名称又は発行機関	取扱い分	図書解記入欄
38	1:125,000 Land Capability Maps (Northern sheet and Southern sheet)	○				MOAC	JR・CR()・SC	

JICA