

**RECORD OF DISCUSSIONS
ON
THE PROJECT FOR
FLOOD-AND DROUGHT-ADAPTIVE CROPPING SYSTEMS TO CONSERVE
WATER ENVIRONMENTS IN SEMI-ARID REGIONS
IN
THE REPUBLIC OF NAMIBIA
AGREED UPON BETWEEN
THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF
REPUBLIC OF NAMIBIA
AND
THE JAPAN INTERNATIONAL COOPERATION AGENCY**

Windhoek, 23 November 2011

中村 俊之

Mr. Toshiyuki Nakamura
Chief Representative,
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Agency

1. Alfred Ilukenaa

Mr. Alfred Ilukenaa
Permanent Secretary,
Ministry of Education
Republic of Namibia

Witnessed by:

Oshwal

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Pro-Vice Chancellor,
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Based on the minutes of meetings on the Detailed Planning Survey on the Project for Flood- and drought-adaptive cropping systems to conserve water environments in semi-arid regions (hereinafter referred to as "the Project") signed on 6 October 2011 between Ministry of Education (hereinafter referred to as "MOE"), University of Namibia (hereinafter referred to as "UNAM") and the Japan International Cooperation Agency (hereinafter referred to as "JICA"), JICA held a series of discussions with MOE and UNAM to develop a detailed Plan of the Project.

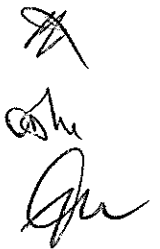
Both parties agreed the details of the Project and the main points discussed as described in Appendix 1 and Appendix 2, respectively.

Both parties also agreed that UNAM, the counterpart to JICA, will be responsible for the implementation of the Project, in cooperation with JICA, coordinate with other relevant organizations and ensure that the self-reliant operation of the Project is sustained during and after the implementation period in order to contribute toward social and economic development of the Republic of Namibia.

The Project will be implemented within the framework of the Note Verbales exchanged on 27 September, 2011 between the Government of the Republic of Namibia (hereinafter referred to as "Namibia") and the Government of Japan (hereinafter referred to as "GOJ").

Appendix 1: Project Description

Appendix 2: Main Points Discussed



PROJECT DESCRIPTION

Both parties confirmed that there is no change in the Project Description agreed to in the minutes of meetings on the concerning Detailed Planning Survey on the Project signed on 6 October 2011.

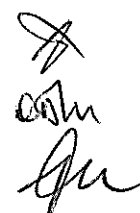
I. BACKGROUND

Harmonization between development and environmental conservation is one of the universal issues in the 21st century. Especially for the semi-arid areas in Africa, there is risk for the rapidly disordered development without any consideration for the environment. On the other hand, periodic serious drought and deluge caused by heavy rains frequently affect semi-arid areas of Sub-Sahara Africa in recent years. Millions of people suffered and experienced shortage of food by the heavy rains from 2006 to 2007, for example. It is the new challenge for the change of global environment to cope with such contradistinctive water conditions.

Namibia is located in the Southern Africa with the area of 824,000 km². The Population is about 2,147,000 with its Gross National Income (GNI) per capita of 4,270USD (World Development Indicator (WDI), World Bank, 2011). With its rich mineral resources, the economic growth marked 4.5% a year on average from 1990 to 2008 (WDI, 2011). Although Namibia is categorized as Upper Middle Income country, the nation is one of the least equitable countries as shown by a Gini coefficient of 0.74 (UNDP, 2007).

A quarter of the nation lives in north central Namibia, where most of the people are subsistence farmers cropping pearl millet and farming livestock. The annual precipitation in the area is about 400mm per year, but flood water from the Angolan plateau creates vast seasonal wetland utmost of about 800,000ha during rainy season. The amount of flood water has been widely changing in the last ten years, which causes serious deluge or drought to the area. Currently, the water resource of the seasonal wetland is not utilized for cropping but mainly for grazing. The reasons for the limited used of the water resource are: the national sanctuary for the wild animals, unstable flood intensity, etc. However, there is risk for the destruction of this vulnerable water environment if irrelevant large-scale development plan would have targeted to the area.

Therefore, the Government of Namibia has requested the technical cooperation project under the framework of science and technology cooperation program. The research project aims to develop "Flood- and drought-adaptive cropping system" which can preserve water resources and cope with the yearly fluctuation of flood and draught. "Flood- and drought-adaptive cropping system" is going to be developed through trials in the field of crop science, development studies, hydrology and integrated study of Agricultural and Social Science. The project is also expected to contribute to adaption to climate changes.



II. OUTLINE OF THE PROJECT

Details of the Project are described in the Logical Framework (Project Design Matrix: PDM) (Annex I) and the tentative Plan of Operation (Annex II).

1. Title of the Project

Flood- and drought-adaptive cropping systems to conserve water environments in semi-arid regions

2. Overall Goal

- (1) "Flood- and drought-adaptive cropping systems" are disseminated in north-central Namibia to contribute to the food security and cash income of local farmers.
- (2) "Flood- and drought-adaptive cropping systems" are considered in the northeastern area of Namibia of high rainfall as well as in neighboring countries.

3. Project Purpose

"Flood- and drought-adaptive cropping systems" are developed which can sustainably preserve the water environment of semi-arid region.

4. Outputs

- (1) **【Crop Science】**The rice-pearl millet mixed cropping system, which is adaptable to the yearly fluctuation of flood and drought as well as water-saving, is proposed.
- (2) **【Development Studies】**The methods to understand the change of attitudes and perception by farmers, and socio - economic impacts on farmers through introduction of the rice-pearl millet mixed cropping system are established.
- (3) **【Hydrology】**The possible area of mixed-cropping field that does not modify the water environment of seasonal wetlands is estimated based on the water budget/water source analysis.
- (4) **【Integrated Study of Agricultural and Social Science】**The cropping systems proposed by the project are integrated through field activities.

5. Activities

- 1-1. Examine appropriate cultivation methods to establish the rice-pearl millet mixed cropping system.
- 1-2. Examine water-saving cultivation techniques by methods including stable isotope technique.
- 1-3. Examine measures to deal with environmental stress such as flood and drought as well as measures to sustain the soil fertility.
- 2-1. Survey the socio-economic conditions and farm operation of farmers who participate in conducting field demonstration or voluntary trials (baseline survey).
- 2-2. Secure informed consent by demonstration farmers prior to project activities and share findings from output 1 and 3 through workshops.
- 2-3. Describe the changes of understanding by demonstration farmers on the contents and purposes of project activities and delineate the points to consider in the process of



expansion of the mixed cropping system.

- 2-4. Classify the environment of farmers' fields from the viewpoint of landscape ecology.
- 2-5. Examine the sustainability of the mixed cropping system from the socio-economic viewpoint by finding out farmers' decision making criteria to adopt or reject a new cropping system, ways to use the agricultural produce, and the change of perception on wetlands (farm household economy, labour distribution survey).
- 3-1. Estimate the change of flood (surface) water of seasonal wetland based on regionally-obtained data such as topography map, satellite image and measurement of hydrological conditions.
- 3-2. Analyze the water budget of seasonal wetland based on hydrological data (precipitation, evapotranspiration, subsurface percolation)
- 3-3. Analyze the dependence on flood (surface) water of small wetlands that are formed in the farmers' demonstration/trial fields.
- 4-1. Conduct field demonstration with committed and hardworking farmers at their small wetlands, on the rice-pearl millet mixed cropping system.
- 4-2. Conduct field trials at farmers who participate in trials on the rice-pearl millet mixed cropping system voluntarily.
- 4-3. Examine the rice-pearl millet mixed cropping system, which can preserve the water resources in semi-arid region and cope with the yearly fluctuation of flood and drought, by incorporating the feedback from output 2 and 3 to output 1.
- 4-4. Carry out participatory research and extension by the Namibian researchers/technicians on the cropping system through opportunities such as field days.

6. Input

(1) Input by JICA

(a) Dispatch of Japanese Experts;

- Long-Term: one (1) Project Coordinator, who will shall be responsible for day-to-day running of project activities with the Namibian project staff.
- Short-Term: several experts listed below, will be dispatched several times a year during the project period:
 - Agronomy,
 - Development Sociology,
 - Hydrology,
 - Crop Physiology, and
 - Geography.

(b) Provision of Machinery and Equipment:

- Vehicles (4WD),
- Agricultural machinery and equipment,
- Analytical instrument for crop physiology,
- Meteorological instrument,
- Training equipment (personal computers, projector, peripheral equipment),
- Office machinery (copier, scanner), and
- Other necessary equipment.



JICA will provide such machinery, equipment and other materials (hereinafter referred to as "the Equipment") necessary for the implementation of the Project within the budget limitation. The equipment is limited to those which are indispensable for the Project.

- (c) Training of Namibian Personnel in Japan:
Long-term and short-term training in Japan for several persons

(2) Input by UNAM

UNAM will take necessary measures to provide at its own expense:

- (a) Services of UNAM's counterpart personnel and administrative personnel as referred to in II-7;
- (b) Suitable office space with necessary equipment;
- (c) Supply or the replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than the equipment provided by JICA;
- (d) Information as well as support in obtaining medical service;
- (e) Credentials or identification cards;
- (f) Available data (including maps and photographs) and information related to the Project;
- (g) Running expenses necessary for the implementation of the Project;
- (h) Expenses necessary for transportation within Namibia of the equipment referred to in II-6 (1) as well as for the installation, operation and maintenance thereof; and
- (i) Necessary facilities to the JICA experts for the remittance as well as utilization of the funds introduced into Namibia from Japan in connection with the implementation of the Project

7. Implementation Structure

The Project organization chart is given in the Annex III. The roles and assignments of relevant staff are as follows:

(1) Research Institution of Namibia

University of Namibia (UNAM) is the Implementing agency of the Project. The Project Director, Project Manager and counterpart personnel will be assigned.

- (a) Prof. Osmund D. Mwandemele, Pro-Vice Chancellor, Academic Affairs and Research, UNAM, as Project Director, will be responsible for overall administration, coordination and implementation of the project.
- (b) Mr. Simon K. Awala, Lecturer, Department of Crop Science, UNAM, as Project Manager, will be responsible for implementation, managerial and technical matters of the Project.
- (c) Other counterpart personnel will be assigned as follows:
 - Mr. Petrus A. Ausiku, Lecturer, Department of Crop Science,
 - Mr. Pamwenafye Nanhapo, Lecturer, Department of Crop Science,
 - Ms. Martha M. Hangula, Lecturer, Head of Department of Agricultural Economics and Extension,
 - Mr. Martin N. Angula, Lecturer, Department of Agricultural Economics and Extension,



- Mr. Benesius Thomas Lecturer, Department of Agricultural Economics and Extension,
- Ms. Cecilie Jona, Lecturer, Department of Agricultural Economics and Extension, and
- Ms. Erikka Sheehama Lecturer, Department of Agricultural Economics and Extension.

(2) Research Institutions and Experts from Japan

The JICA experts will give necessary technical guidance, advice and recommendations to UNAM on any matters pertaining to the implementation of the Project.

- (a) Kinki University
- (b) Nagoya University
- (c) Research Institute for Humanity and Nature
- (d) The University of Shiga Prefecture

(3) Joint Coordinating Committee

Joint Coordinating Committee (hereinafter referred to as "JCC") will be established in order to facilitate inter-organizational coordination. JCC will be held at least once a year and whenever deems it necessary. JCC will approve an annual work plans, review overall progress, conduct monitoring and evaluation of the Project, and exchange opinions on major issues that arise during the implementation of the Project. A list of proposed members of JCC is shown in the Annex IV.

8. Project Sites and Beneficiaries

(1) Project Sites

Project sites are the Faculty of Agriculture and Natural Resources, Ogongo Campus, UNAM and seasonal wetlands in north-central Namibia.

(2) Target Group

Target Group of the Project is researchers of the Faculty of Agriculture and Natural Resources, UNAM, and farmers in north-central Namibia.

9. Duration

The duration of the Project will be five (5) years from the date of first arrival of Japanese expert after the signing of the Record of Discussions.

10. Reports

UNAM and JICA experts will jointly prepare the following reports in English.

- (1) Progress Report on semiannual basis until the project completion
- (2) Project Completion Report at the time of project completion

III. UNDERTAKINGS OF NAMIBIA

Namibia will take necessary measures to ensure that the technologies and knowledge acquired by the Namibian nationals as a result of Japanese technical cooperation contributes to the economic and social development of Namibia, and that the knowledge and



experience acquired by the personnel of Namibia from technical training as well as the equipment provided by JICA will be utilized effectively in the implementation of the Project.

Privileges, exemptions and benefits will be provided in accordance with the Note Verbales exchanged on 27 September 2011 between Namibia and GOJ.

IV. EVALUATION

JICA and Namibian authorities concerned will jointly conduct the following evaluation and review.

1. Mid-term review at the middle of the cooperation term
2. Terminal evaluation during the last six (6) months of the cooperation term

V. PROMOTION OF PUBLIC SUPPORT

For the purpose of promoting support for the Project, UNAM will take appropriate measures to make the Project widely known to the people of Namibia.

VI. MUTUAL CONSULTATION

JICA, UNAM and other Namibian stakeholders will consult each other whenever any major issues arise in the course of Project implementation.

VII. AMENDMENTS

The record of discussions may be amended by the Minutes of Meeting between JICA and MOE. The Minutes of Meeting will be signed by authorized persons of each side who may be different from the signers of the Record of Discussions.

- Annex I Logical Framework (Project Design Matrix:PDM)
- Annex II Tentative Plan of Operation
- Annex III Project Organization Chart
- Annex IV A List of Proposed Members of Joint Coordinating Committee

A handwritten signature in black ink, appearing to be 'A. esth' followed by a stylized 'Jh' or similar mark.

ANNEX I : Logical Framework (Project Design Matrix :PDM)

Project Title: Flood- and Drought-Adaptive Cropping Systems to Conserve Water Environments in Semi-arid Regions
 Project Site: Faculty of Agriculture & Natural Resources, Ogonjo Campus, The University of Namibia (UNAM) and seasonal wetlands in north-central Namibia
 Target Group: Researchers of Faculty of Agriculture & Natural Resources, UNAM, and farmers in north-central Namibia
 Project Duration: February 2012 - February 2017 (5 years)

Ver. 1 (10 Nov 2011)

Overall Goal	Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
1. "Flood- and drought-adaptive cropping systems" are disseminated in north-central Namibia to contribute to the food security and cash income of local farmers. 2. "Flood- and drought-adaptive cropping systems" are considered in the northeastern area of Namibia of high rainfall as well as in neighboring countries.	1-1) Field day held regularly on the cropping systems. 2-1) Regional research conference agreed and held together with the neighbouring countries on the cropping systems.	1-1) Field day held regularly on the cropping systems. 2-1) Regional research conference agreed and held together with the neighbouring countries on the cropping systems.	University of Namibia, Ministry of Agriculture, or media reports Reference in regional research conference	Extension works sustained and expanded. Understanding and cooperation of neighbouring countries obtained.
Project Purpose "Flood- and drought-adaptive cropping systems" are developed which can sustainably preserve the water environment of semi-arid region.	Guideline for "Flood- and drought-adaptive cropping systems" is compiled.	Guideline for "Flood- and drought-adaptive cropping systems" is compiled.	Guideline for "Flood- and drought-adaptive cropping systems"	
Output 1: [Crop Science] The rice-pearl millet mixed cropping system, which is adaptable to the yearly fluctuation of flooding and drought as well as water-saving, is proposed. 2: [Development Studies] The methods to understand the change of attitudes and perception by farmers, and socio-economic impacts on farmers through introduction of the rice-pearl millet mixed cropping system are established.	1-1) Number of presentations at academic conference/seminar in related areas such as crop science and tropical agriculture (X times).. 1-2) List of water-saving cultivation techniques with high water-use efficiency and of cropping systems with high productivity under environmental stress such as flood and drought. 2-1) Records of changes in understanding by demonstration farmers on the contents and purpose of the mixed cropping system. 2-2) Number of presentation on study methods of understanding perception and the socio-economic impacts by researchers of UNAM (X times). 2-3) Number of report at academic conferences/seminar on the evaluation method for landscape ecology of the cropping system (X times).. 3-1) Acquisition of data on the change of flood (surface) water, the water budget and the dependence on flood (surface) water of small wetlands. 3-2) Number of presentations at academic conference/seminar in related areas such as the potential cultivation area which does not affect the water environment (X times).. 4-1) Annual completion of hand-out on the mixed cropping system for researchers and farmers at the field day 4-2) Execution of field days by researchers and technicians of UNAM on the mixed cropping system.	1-1) Number of presentations at academic conference/seminar in related areas such as crop science and tropical agriculture (X times).. 1-2) List of water-saving cultivation techniques with high water-use efficiency and of cropping systems with high productivity under environmental stress such as flood and drought. 2-1) Records of changes in understanding by demonstration farmers on the contents and purpose of the mixed cropping system. 2-2) Number of presentation on study methods of understanding perception and the socio-economic impacts by researchers of UNAM (X times). 2-3) Number of report at academic conferences/seminar on the evaluation method for landscape ecology of the cropping system (X times).. 3-1) Acquisition of data on the change of flood (surface) water, the water budget and the dependence on flood (surface) water of small wetlands. 3-2) Number of presentations at academic conference/seminar in related areas such as the potential cultivation area which does not affect the water environment (X times).. 4-1) Annual completion of hand-out on the mixed cropping system for researchers and farmers at the field day 4-2) Execution of field days by researchers and technicians of UNAM on the mixed cropping system.	Proceedings of conference/seminar Progress report Report on research results Interview/questionnaire Progress report Report on research results Proceedings of conference/seminar Report on research results Proceedings of conference/seminar	Government policies on seasonal wetlands remain unchanged. (Large-scale physical planning or commercial farming not introduced in the seasonal wetlands.)
3: [Hydrology] The possible area of mixed-cropping field that does not modify the water environment of seasonal wetlands is estimated based on the water budget/water source analysis. 4: [Integrated Study of Agricultural and Social Science] The cropping systems proposed by the project are integrated through field activities.			Report on research results Proceedings of conference/seminar Progress report Report on research results	

ANNEX I : Logical Framework (Project Design Matrix :PDM)

Narrative Summary		Inputs	Important Assumptions
Activity		Namibia Side	
1.1 Examine appropriate cultivation methods to establish the rice-pearl millet mixed cropping system.		1) Assignment of Counterparts - Project Director - Project Manager - other necessary personnel	The implementation arrangement of the project sustained.
1.2 Examine water-saving cultivation techniques by methods including stable isotope technique.			
1.3 Examine measures to deal with environmental stress such as flood and drought as well as measures to sustain the soil fertility.			Weather conditions are as usual without extreme drought or flood.
2.1 Survey the socio-economic conditions and farm operation of farmers who participate in conducting field demonstration or voluntary trials (baseline survey).		2) Provision of Facilities - Office space, working place, internet and other facilities (Ogongo Campus in the University of Namibia) - Experimental field and basic materials	
2.2 Secure informed consent by demonstration farmers prior to project activities and share findings from output 1 and 3 through workshops.			
2.3 Describe the changes of understanding by demonstration farmers on the contents and purposes of project activities and delineate the points to consider in the process of expansion of the mixed cropping system.		3) Local Costs - Expenses for Namibian researchers' activities (e.g. domestic travel costs) - Operating expenses for the day-to-day activities and management of the project (such as utilities and communication costs)	
2.4 Classify the environment of farmers' fields from the viewpoint of landscape ecology.			
2.5 Examine the sustainability of the mixed cropping system from the socio-economic viewpoint by finding out farmers' decision making criteria to adopt or reject a new cropping system, ways to use the agricultural produce, and the change of perception on wetlands (farm household economy, labour distribution survey).			
3.1 Estimate the change of flood (surface) water of seasonal wetland based on regionally-obtained data such as topography map, satellite image and measurement of hydrological conditions.		Japan Side	
3.2 Analyze the water budget of seasonal wetland based on hydrological data (precipitation, evapotranspiration, subsurface percolation)		1) Dispatch of Experts - Long-term expert (Project Coordinator) - Short-term experts (Agronomy, Development Sociology, Hydrology, Crop Physiology, Geography)	Conditions are satisfied to initiate the project as agreed in the Minutes of Meeting
3.3 Analyze the dependence on flood (surface) water of small wetlands that are formed in the farmers' demonstration/trial fields.		2) Training Counterpart trainings in Japan for several researchers	
4.1 Conduct field demonstration with committed and hardworking farmers at their small wetlands, on the rice-pearl millet mixed cropping system.		3) Provision of Equipment and Materials - Vehicle (4WD) - Agricultural machinery and equipment - Analytical instrument for crop physiology - Meteorological instrument - Training equipment (personal computers, projector, peripheral equipment) - Office machinery (copier, scanner) - Other necessary equipment	
4.2 Conduct field trials at farmers who participate in trials on the rice-pearl millet mixed cropping system voluntarily.			
4.3 Examine the rice-pearl millet mixed cropping system, which can preserve the water resources in semi-arid region and cope with the yearly fluctuation of flood and drought, by incorporating the feedback from output 2 and 3 to output 1.			
4.4 Carry out participatory research and extension by the Namibian researchers/technicians on the cropping system through opportunities such as field days.		4) Local Costs Share of training costs	

"Flood- and drought-adaptive cropping system": The farming system which secures food crop production by the subsistent farmers in both flood and drought years by mixed cropping of rice and pearl millet.

ANNEX II: Tentative Plan of Operation (PO)

Plan of Operation [SATREPS] Flood- and Drought-Adaptive Cropping Systems to Conserve Water Environments in Semi-arid Regions

Ver 1 (6 Nov 2011)

		Responsible Personnel	Schedule																		2016			
			2012						2013						2014									
			1	4	7	10	1	4	7	10	1	4	7	10	1	4	7	10						
		Namibia	Japan	1	4	7	10	1	4	7	10	1	4	7	10	1	4	7	10	1	4	7	10	1
				-3	-6	-9	-12	-3	-6	-9	-12	-3	-6	-9	-12	-3	-6	-9	-12	-3	-6	-9	-12	-3

ANNEX II: Tentative Plan of Operation (PO)

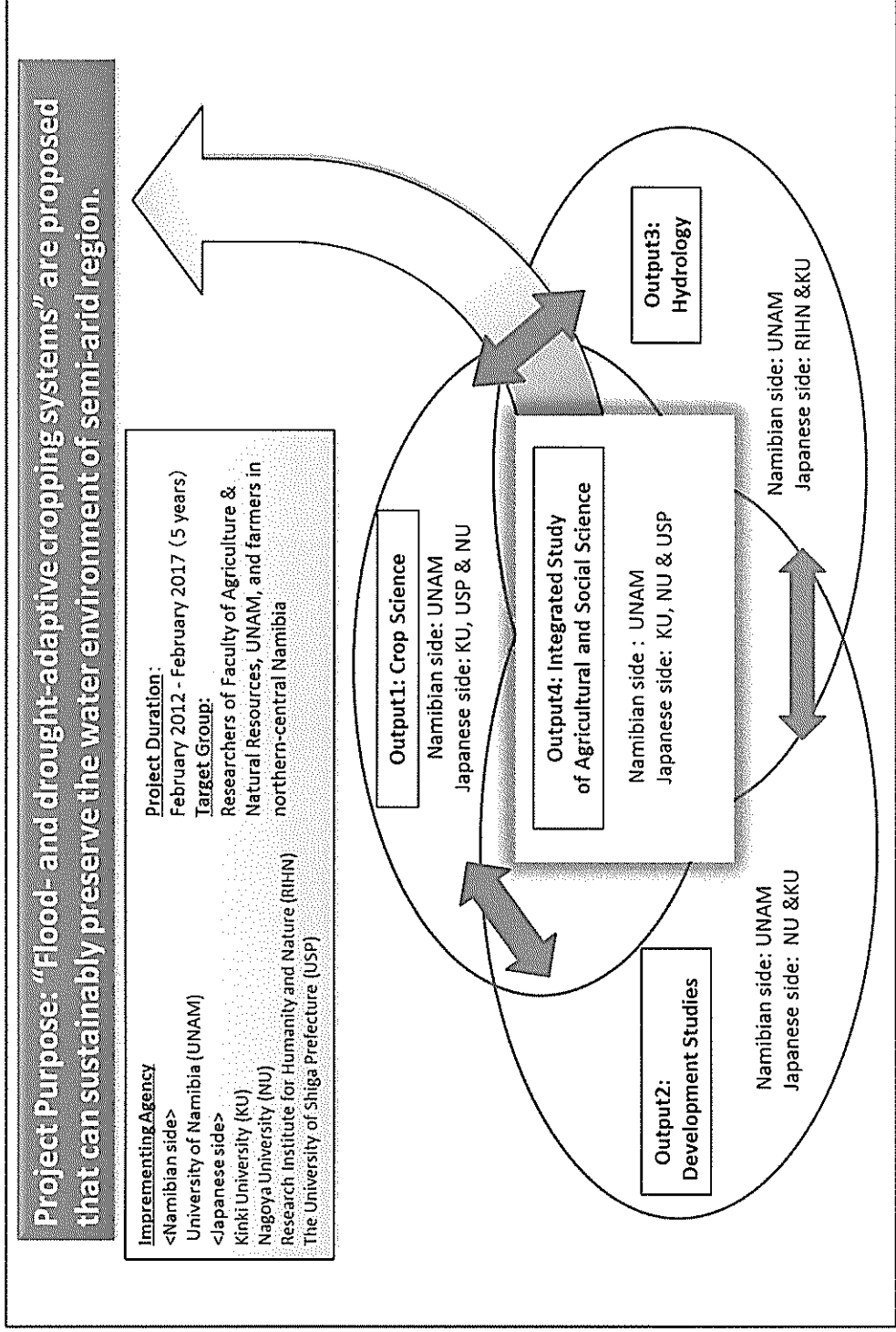
2.4.1	Conduct an interview survey for criteria of classification on landscape ecology.	UNAM	NU KU				
2.4.2	Compile a mid-term review on basic findings.	UNAM	NU KU				
2.4.3	Evaluate the mixed cropping system in farmers' fields from the viewpoint of landscape ecology.	UNAM	NU KU				
2.5	Examine the sustainability of the mixed cropping system from the socio-economic viewpoint by finding out farmers' decision making criteria to adopt or reject a new cropping system, ways to use the agricultural produce, and the change of perception on wetlands (farm household economy, labor distribution survey).	UNAM	NU KU				
2.5.1	Evaluate the farm household economy and labor distribution.	UNAM	NU KU				
2.5.2	Survey the ways to allocate the agricultural produce to different purposes.	UNAM	NU KU				
2.5.3	Survey the farmers' decision making criteria as to adopt or reject a new cropping system (setting the criteria and its preliminary assessment)	UNAM	NU				
2.5.4	Evaluate the impacts on the demonstration/trial farmers.	UNAM	NU				
Output 3 (Hydrology) The possible area of mixed-cropping field that does not modify the water environment of seasonal wetlands is estimated based on the water budget/water source analysis.							
3.1	Estimate the change of flood (surface) water of seasonal wetland based on regionally-obtained data such as topography map, satellite image and measurement of hydrological conditions.		RIHN NU				
3.2	Analyze the water budget of seasonal wetland based on hydrological data (precipitation, evapotranspiration, subsurface percolation)	UNAM	NU				
3.2.1	Collect precipitation data using rainfall gauges set up across the overall seasonal wetlands.	UNAM	RIHN NU				
3.2.2	Estimate evapotranspiration by the Bowen ratio measurement system set up in the campus of UNAM.	UNAM	RIHN NU				
3.2.3	Estimate subsurface percolation by soil infiltration tests in the local fields.	UNAM	RIHN NU				
3.3	Analyze the dependence on flood (surface) water of small wetlands that are formed in the farmers' demonstration/trial fields.	UNAM	RIHN KU				
3.3.1	Estimate dependence of wetland water on flood water and/or groundwater by the stable isotope technique.	UNAM	RIHN KU				
3.3.2	Estimate water age in small wetlands by the analysis of hydrological tracers.	UNAM	RIHN KU				
Output 4 [Integrated Study of Agricultural and Social Science] The cropping systems proposed by the project are integrated through field activities.							
4.1	Conduct field demonstration with committed and hardworking farmers at their small wetlands, on the rice-pearl millet mixed cropping system.	UNAM	KUNU USP				
4.1.1	Demonstrate cultivation techniques at about three farmers' fields.	UNAM	KUNU USP				
4.1.2	Propose some farming models and expand them at farmers' demonstration fields.	UNAM	KUNU USP				
4.2	Conduct field trials at farmers who participate in trials on the rice-pearl millet mixed cropping system voluntarily.	UNAM	KUNU USP				
4.2.1	Try cultivation techniques dependent on farmers' voluntary ideas by providing rice seedlings to farmers.	UNAM	KUNU USP				
4.3	Examine the rice-pearl millet mixed cropping system, which can preserve the water resources in semi-arid region and cope with the yearly fluctuation of flood and drought, by incorporating the feedback from output 2 and 3 to output 1.	UNAM	KU USP				
4.3.1	Propose the farming model of mixed cropping system that can conserve the water environment.	UNAM	KUNU USP				
4.4	Carry out participatory research and extension by the Namibian researchers/technicians on the cropping system through opportunities such as field days.	UNAM	KUNU USP				
4.4.1	Organize workshop by researchers who attend the technical training courses.	UNAM	KUNU USP				

UNAM: University of Namibia, KU: Kinki University, NU: Nagoya University, USP: University of Shiga Prefecture, RIHN: Research Institute for Humanity and Nature

Annex III Project Organization Chart

Flood-and Drought-Adaptive Cropping Systems to Conserve Water Environments in Semi-arid Regions

(Under the program of Science and Technology Research Partnership for Sustainable Development; SATREPS)



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Annex IV Joint Coordinating Committee

1. Function

Joint Coordinating Committee (hereinafter referred to as "JCC"), composed of members listed in 2 below, will meet at least once a year and whenever the necessity arises. The main functions of JCC shall be as follows:

- (1) To approve the annual work plan of the Project,
- (2) To review the overall progress and achievements of the Project,
- (3) To examine major issues arising from or in connection with the Project,
- (4) To work out the modification of activities depend in Namibia the necessity, and
- (5) To discuss any other issue(s) pertinent to the smooth implementation of the Project.

2. Committee Composition

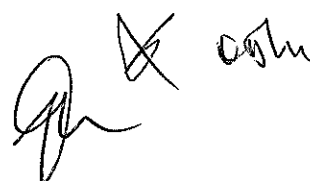
The JCC will be composed of the following members:

Chairperson: Project Director, Prof. Dr. Osmund D. Mwandemele

(1) Namibian side:
Project Director,
Project Manager,
Counterpart personnel, and
Representative(s) of the Ministry of Education.

(2) Japanese side:
Project Leader,
Project Coordinator,
JICA Experts, and
Representative(s) of JICA South Africa Office and/or Namibia Office.
Other personnel concerned to be decided and/or dispatched by JICA, if necessary.

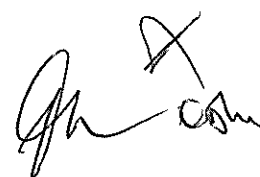
(3) Observer:
Official(s) of the Embassy of Japan,
Representative(s) of Japan Science and Technology Agency (JST), and
Other official(s) appointed by the Chairperson.
Observers may attend as agreed upon by JICA and UNAM.



MAIN POINTS DISCUSSED

Privileges, Exemptions and Benefits for Japanese Experts

1. To exempt from income tax and other charges imposed on or in connection with the living allowances remitted from abroad for the Japanese experts.
2. To exempt from import duties, value added tax and other charges imposed on vehicles and personal household effects of the Japanese experts and their families.
3. The Value Added Tax Act 10, 2000 however, specify excludes motor vehicles to be exempted from VAT on importation. Ministry of Education (MOE) will bear the liability for (VAT) arising from the importation of vehicles of one motor vehicle per expert and one additional motor vehicle in 4 year interval.
4. With regard to local purchase, all VAT charged on goods including motor vehicles and services acquired locally for the use of experts under the technical agreement, are eligible for VAT refund.
5. The Commissioner, in consultation with the Minister whose Ministry benefits in any technical assistance agreement entered into between the Government of Namibia and the any organization or the government of any another country, may issue a refund authorization letter enabling the claiming of refunds of tax paid, in such from and upon such conditions and subject to such restrictions as he or she may prescribe, such organization or government in terms of, and for the purpose of attaining the objects of, such technical assistance agreement.
6. To facilitate the issuance of entry visas for the Japanese experts and their families free of charge.
7. To facilitate the issuance of residence and/or work permits to the Japanese experts and their families as appropriate for the duration of the Project.
8. To exempt from customs duties, value added tax and any other charges for import and export of machinery and equipment by the Japanese experts in connection with the Project activities.

A handwritten signature in black ink, appearing to be 'Jh' followed by a stylized 'com' or similar mark.