

The first volume: The action plan

Table of contents

Study area.....	i
66 reservoirs concerned by the study	ii
Table of contents	iii
List of tables and figures	vii
Initials and abbreviations	x
Exchange rate	xiii
Abstract.....	<i>Abstract -1</i>

[Background]

Chapter 1 : Introduction	1-1
1.1 Context of the study	1-1
1.2 Objectives of the study	1-1
1.3 Study area	1-2
1.4 Calendar of execution of the activities of the study	1-2
1.5 Study support system.....	1-4
1.5.1 Execution structures	1-4
1.5.2 Steering Committee.....	1-4
1.5.3 Assistance by academic and experienced experts in Japan	1-4
1. 6 Structure of the final report.....	1-4

[Current condition]

Chapter 2: Presentation of the study area.....	2-1
2.1 Natural area.....	2-1
2.1.1 Localization	2-1
2.1.2 Topography, hydrology and soil	2-1
2.1.3 Climate and vegetation.....	2-2
2.2 Socio cultural aspects	2-4
2.2.1 Population.....	2-4
2.2.2 Ethnic group and religion	2-6
2.2.3 Characteristics of rural area.....	2-6
2.2.4 Health	2-8
2.2.5 Education.....	2-9
2.2.6 Regional administrative organization.....	2-10
2.2.7 Land property	2-11
2.2.8 Gender	2-13
2.3 General view of the economy	2-14
2.4 Primary industries	2-16
2.4.1 Agriculture.....	2-16
2.4.2 Live stock	2-19
2.4.3 Forests	2-20
2.4.4 Fishing.....	2-21
2.5 Strategies and national policies in terms of rural development.....	2-23
2.5.1 Poverty Reduction Strategy	2-24
2.5.2 Rural Development Strategy	2-25
2.5.3 Other policies relative to the rural development.....	2-27
2.5.4 Special Program of the President of the Republic	2-29
2.6 Ministries concerned by the rural development	2-31
2.6.1 Ministries concerned by the rural development.....	2-31

2.6.2 Budget	2-31
2.6.3 Attributions	2-31
2.6.4 Directorates concerned by the rural development.....	2-34
2.6.5 Human resources for the rural development.....	2-34
2.7 The actual tendency of financial donors and NGOs in the rural sector	2-36
2.7.1 The actual tendency of financial donors.....	2-36
2.7.2 Actual tendency of NGOs.....	2-41
Chapter 3 : Current situation of the water reservoir and categorization.....	3-1
3.1 Situation of the construction	3-1
3.1.1 First phase	3-1
3.1.2 Second phase	3-2
3.1.3 Third phase	3-3
3.1.4 Water reservoirs object of this study	3-3
3.2 Classification.....	3-4
3.2.1 Mode of storage of the water reservoir	3-4
3.2.2 State of sand accumulation (problem of the weirs).....	3-6
3.2.3 Period of storage (problem of the small scale dams)	3-7
3.2.4 State of deterioration of the reservoirs (problem concerning the small scale dams and the weirs).....	3-8
3.2.5 Objectives of the construction of water reservoirs at ends other than agricultural	3-8
3.2.6 Categorization.....	3-8
Chapter 4: Current state of the villages around water reservoirs and the constraints for their development	4-1
4.1 Current situation of the practice of agriculture and constraints to development	4-1
4.1.1 Ethnic composition of the prevalent benefit villages of the water reservoirs	4-1
4.1.2 Rainfed agriculture.....	4-2
4.1.3 Dry season agriculture.....	4-5
4.1.4 Constraints as regards management of agriculture	4-10
4.2 Present situation of marketing and constraints to development	4-11
4.2.1 Outdistance market and numbers sites of works of water reservoir	4-11
4.2.2 Current situation of marketing	4-12
4.2.3 Constraints to marketing	4-13
4.3 Present situation of extension and constraints to development	4-14
4.3.1 Number of the extension agents	4-14
4.3.2 Relationship between the villages and the extension agents	4-15
4.3.3 Extension activities	4-16
4.3.4 Constraints to extension activities	4-16
4.4 Present situation of the organizations and their constraints	4-17
4.4.1 Present situation of the organizations	4-17
4.4.2 Constraints to the organization	4-24
4.5 Use condition of reservoirs and constraints to development	4-24
4.5.1 Use condition of reservoir	4-24
4.5.2 Problems of development of the arable lands	4-25
Chapter 5 : Analysis of the constraints to the development and selection of the countermeasures .	5-1
5.1 Outcomes of the analysis of the constraints to the development.....	5-1
5.2 Results of the analysis of populations needs	5-2
5.3 Governmental orientations as regards rural development.....	5-5
5.4 Results of the analysis of problems and countermeasures	5-5
5.5 Composition of the pilot project.....	5-7
5.6 The major change between the draft action plan and the action plan	5-7

[The Action Plan]	
Chapter 6 : Basic Concept of the Action Plan	6-1
6.1 Context of the establishment of the Action plan	6-1
6.2 Objective and basic elements of the plan.....	6-1
6.2.1 Objective of the plan	6-1
6.2.2 Basic elements of the action plan.....	6-2
6.3 Basic orientation for the establishment of the plan	6-3
6.3.1 Self development	6-3
6.3.2 Management of the sites by the peasants	6-3
6.3.3 Installation of "Peasants Demonstration Fields"	6-5
6.3.4 Redefinition of the role of the extension agent and collaboration with the local government	6-6
6.4 Method of implementation of the AP	6-7
6.4.1 Reinforcement of capacities of reservoirs users in self development	6-7
6.4.2 Improvement of incomes and living condition of reservoirs users	6-8
6.4.3 Implementation of the AP stage by stage	6-9
Chapter 7 : Content of the action plan	7-1
7.1 Process of identification of the actions within the framework of the action plan	7-1
7.2 Composition of the action plan	7-1
7.3 Detailed contents of each activity of the AP	7-4
7.3.1. Component A: reinforcement of capacities of reservoir users in self development	7-5
7.3.2. Component B: Improvement of the incomes and living conditions of the reservoirs users.....	7-17
7.4. Other actions to be implemented.....	7-32
7.4.1. Preparation of the office and discussion with the MAD	7-32
7.4.2 Environmental assessment	7-32
7.4.3. Participation in the agro-sylvo-pastoral fairs.....	7-33
7.4.4. Participation to meetings of the regional consultative committee	7-33
7.4.5 Missions of supervision of the Directorate of the Studies and Programming of the Ministry for the Agricultural Development	7-33
7.4.6 Steering committee	7-34
[Implementation of the Action Plan]	
Chapter 8 : Mode of execution of the action plan.....	8-1
8.1 Key points of the action plan	8-1
8.2 Period of execution of the actions	8-2
8.3 Volume of the actions	8-3
8.4 Project of system of execution of the action plan.....	8-5
8.5 Cost of the actions	8-9
8.5.1 Structuring of the total cost of the actions	8-9
8.5.2 Total cost of the actions.....	8-9
Chapter 9 : Conformity of the action of the AP with the RDS	9-1
9.1 Conformity of the actions of the AP with the RDS	9-1
9. 2 Connection between the AP and the RDS.....	9-1
Chapter 10 : Requests and proposals to the government of Niger.....	10-1
10.1 Requests during the execution of the action plan	10-1
10.1.1 Request for the assignment of the extension agents.....	10-1
10.1.2 Request for the building the reservoirs which construction interrupted	10-2
10.1.3 Budget request for the implementation of the Action Plan	10-2

10.2 Proposals for next constructions of water reservoir	10-2
10.2.1 Recommendation related to the site selection of the water reservoir	10-3
10.2.2 Recommendations related to the structure of the water reservoirs	10-5
10.2.3 Recommendations related to environmental impact assessment (EIA)	10-5
10.2.4 Recommendations related to Land property problems	10-5
10.2.5 Recommendations related to the equipment of water intake	10-6
10.2.6 Recommendations related to the organization of the users of the reservoirs.....	10-6
10.2.7 Recommendations related to the responsibility of dealing with the maintenance costs of the vehicles and the travelling expenses of the government officials	10-7
10.3 Efforts for literacy	10-7

Appendix AP1: List of equipments and materials

Appendix AP2: Project Design Matrix (PDM)

Appendix AP3: Detailed calculation of the total cost of the projects

Appendix AP4: Result of conference with the TFP intervening in the AP zone

Appendix AP5: Documents list of the trainings

Appendix AP6: Scope of work 02/2005

Appendix AP7: Minutes of meeting on scope of work 02/2005

Appendix AP8: Minutes of meeting on inception report 12/2005

Appendix AP9: Minutes of meeting on interim report (1) 10/2006

Appendix AP10: Minutes of meeting on interim report (2) 05/2008

Appendix AP11: Minutes of meeting on draft final report 08/2009

List of tables

Table 1.4 (1) Study working calendar	1-3
Table 2.1 (1) Surface of the study area (km ²)	2-1
Table 2.1 (2) natural situation of regions of the study area	2-2
Table 2.1 (3) Situation of climate and vegetation in the regions of the study area	2-3
Table 2.1 (4) Rainfall variations of ten years in the study area (from 1996 to 2005)	2-4
Table 2.2 (1) Composition of the population in the regions of the study area.....	2-5
Table 2.2 (2) Ethnic composition of population in the regions of study area (2001).....	2-6
Table 2.2 (3) Main indicators in relation with health.....	2-8
Table 2.2 (4) Number of diseases and dead persons from the five serious diseases cause of mortality	2-9
Table 2.2 (5) Inventory of equipments for water supply in regions of the study area (2000)	2-9
Table 2.2 (6) Main indicators in relation with education (2000-2007)	2-10
Table 2.2 (7) Real cases of land property conflicts causes.....	2-13
Table 2.2 (8) Evolution over years of the number of minutes in Dosso region.....	2-13
Table 2.3 (1) Gross National Product of Niger (2002-2004)	2-14
Table 2.3 (2) Commercial balance	2-14
Table 2.3 (3) Main exportations.....	2-15
Table 2.3 (4) Situation of economic activities region by region.....	2-16
Table 2.4 (1) Evolution of planting areas for the main speculations as the years go by 5 years back	2-17
Table 2.4 (2) Farming areas and yields of the main speculations in the 5 regions (2004)	2-17
Table 2.4 (3) Evolution of main crops harvests in the five (5) regions	2-18
Table 2.4 (4) Situation of forests in Niger (2004).....	2-20
Table 2.4 (5) Domestic fuel utilized for food preparation.....	2-20
Table 2.4 (6) Gives the demand for wood forests and required forests area for its production in the 5 regions concerned by the study	2-21
Table 2.4 (7) Main rivers that have a high fishing potential in Niger	2-21
Table 2.4 (8) Fish production distribution according to region	2-22
Table 2.5 (1) Regions potentials and priority scopes of intervention.....	2-25
Table 2.5 (2) Key points of the Rural Development Strategy	2-26
Table 2.5 (3) Decennial Program for Education Development	2-28
Table 2.5 (4) Outlines of the Health Development Plan	2-29
Table 2.6 (1) Budget of the Ministry of agriculture	2-31
Table 2.6 (2) Situation of workers from the Ministry of Territory Arrangement and Community Development	2-35
Table 2.6 (3) Situation of workers of the Ministry of Agricultural Development	2-35
Table 2.6 (4) Situation of workers of the Ministry of Environment and Fight against Desertification	2-35
Table 2.6 (5) Situation of the workers of the Ministry of Water Ressources.....	2-36
Table 2.6 (6) Situation of workers of the Ministry of Livestock raising and Animal Industries	2-36
Table 2.7 (1) External assistances benefiting to the Rural development	2-37
Table 2.7 (2) Definition of intervention scopes by project or by financial donorsbackers	2-38
Table 2.7 (3) Projects and programs with whom the study exchanged ideas	2-39
Table 2.7 (4) Number of NGOs by intervention area.....	2-41
Table 2.7 (5) Activities of NGOs in the scope of rural development	2-42
Table 3.1 (1) List of water reservoirs built during the first phase.....	3-1
Table 3.1 (2) List of water reservoirs actually being constructed	3-2
Table 3.1 (3) List of additional water reservoirs built in the first phase	3-2
Table 3.1 (4) List of water reservoirs planned in the first phase which were not built	3-2
Table 3.1 (5) List of water reservoirs built in the second phase	3-2

Table 3.1 (6) List of reservoirs partially unfinished.....	3-2
Table 3.1 (7) List of water reservoirs planned in the second phase which were not built.....	3-3
Table 3.2 (1) List of the water reservoirs per category	3-9
Table 4.1 (1) Extension of the production and improvement of millet productivity in Niger	4-3
Table 4.1 (2) Surface areas used for irrigated agriculture per region (2003-2004).....	4-6
Table 4.3 (1) Evolution of the number of agents of the Ministry of Agricultural Development between 1999 and 2002	4-14
Table 4.3 (2) Relationship between the number of basic extension agents and the number of villages in region of the study area	4-16
Table 4.4 (1) Types of organizations and their characteristics	4-17
Table 4.4 (2) Objectives, activities, and characteristic of the main organizations	4-18
Table 4.4 (3) Situation of the organization in village around water reservoirs.....	4-20
Table 4.4 (4) Problems of the organization (Results of the seminar of the project cycle management)	4-24
Table 5.1 (1) Summary of the outcomes of PCM	5-2
Table 5.3 (1) Implementation of community fast actions highly effective promoted by the administration at the village level.....	5-5
Table 5.4 (1) Results of the analysis of problems and countermeasures	5-6
Table 5.5 (1) Composition of the pilot projects	5-7
Table 6.2 (1) Reason of change of the objective of survey and the action plan	6-2
Table 6.2 (2) Number of works and villages target action plan area by area	6-3
Table 6.4 (1) Support to the management of the sites	6-8
Table 7.2 (1) Composition of the action plan and effectiveness of actions	7-2
Table 8.1 (1) Key points of the action plan	8-1
Table 8.3 (1) Criteria for adoption of the actions.....	8-3
Table 8.3 (2) Volume of the actions for all the water reservoirs	8-4
Table 8.5 (1) Detail of the total cost of the actions	8-10
Table 9.2 (1) Connection between the AP and the SDR.....	9-2
Table 10.2 (1) Criteria of selection of a recipient for the construction of new reservoirs.....	10-7

List of figures

Figure 2.1 (1) Climatic zones of Niger	2-3
Figure 2.1 (2) Diagram of variations rainfall per annum in the study area	2-4
Figure 2.2 (1) Population density distribution map	2-5
Figure 2.2 (2) Fundamental structure of a village.....	2-7
Figure 2.2 (3) Diagrammatic representation of a village in Niger	2-7
Figure 2.2 (4) Example of a rural house.....	2-8
Figure 2.2 (5) Diagram of administrative divisions in Niger	2-10
Figure 2.2 (6) Community organization.....	2-11
Figure 2.4 (1) Evolution of live stock in Niger	2-19
Figure 2.5 (1) Relationship between the action plan and the upper level plans and programs.....	2-23
Figure 3.2 (1) Small scale dam constructed in a river and the irrigated agriculture is done only downstream of the dam (Sectional sight).....	3-4
Figure 3.2(2) Small scale dam constructed in a river and the irrigated agriculture is done only downstream of the dam (Arial sight)	3-5
Figure 3.2 (3) Weir constructed in a seasonal river	3-5
Figure 3.2 (4) Problem of sand accumulation in a weir	3-7
Figure 3.2 (5) Categorization of water reservoirs	3-9
Figure 4.1 (1) Ethnic groups of the prevalent benefits villages in the 66 reservoirs	4-2
Figure 4.1 (2) Cereal productions region per region in 2003	4-2

Figure 4.1 (3) Millet cropping areas and yields evolution	4-3
Figure 4.1 (4) Relations between rainfall and harvests of millet in Tahoua region	4-4
Figure 4.1 (5) 61 sites of water reservoirs per region and per category of rainfall quantity	4-4
Figure 4.1 (6) Number of farmers per region on 65 sites of water reservoirs	4-7
Figure 4.1 (7) Surface areas exploited per region in 64 sites of water reservoirs.....	4-8
Figure 4.1 (8) Surface areas cultivated per farmer in 64 sites of water reservoirs, region per region	4-8
Figure 4.1 (9) Percentages of surface areas already exploited in 64 sites of water reservoirs, region per region	4-8
Figure 4.2 (1) Number of sites per category of distance between the prevalent benefit villages and the markets, region per region, for all 66 the water reservoirs.	4-12
Figure 4.2 (2) Evolutions year round of the price of millet and onion on producers level (2004)	4-12
Figure 4.3 (1) Evolutions of the number of basic extension agents in the 5 regions object of the study	4-15
Figure 4.3 (2) Situation of assignment of basic extension agents of the Ministry of Agricultural Development	4-15
Figure 4.4 (1) Category of existing organizations in the 16 surrounding villages of the water reservoirs.....	4-18
Figure 4.5 (1) Situation of the benefit villages of the 66 water reservoirs per area	4-25
Figure 4.5 (2) Arable lands development problem on 62 water reservoirs, region per region	4-25
Figure 5.2 (1) Constraints to development according to men	5-3
Figure 5.2 (2) Constraints to development according to women	5-3
Figure 5.6 (1) Relationship between the Cooperative of Water Reservoir Users and the Village Development Committee	5-8
Figure 6.3 (1) Composition of facilitation.....	6-6
Figure 6.4 (1) Implementation of the AP stage by stage	6-10
Figure 7.3 (1) Extension system connecting government services and the reservoirs users	7-8
Figure 7.3 (2) Composition of the cooperatives of reservoir users, and relationships with government services	7-10
Figure 7.3 (3) Composition of cooperatives of the reservoirs users (proposition)	7-11
Figure 7.3 (4) Procedure for the establishment of the reservoirs valorization plan.....	7-13
Figure 8.2 (1) Calendar per site (Investing time)	8-2
Figure 8.2 (2) Study calendar and the action Plan (Investing time)	8-2
Figure 8.4 (1) Project of system of execution of the action plan	8-6
Figure 8.4 (2) Evolution of each activity for increase the income and improve the living condition of farmers	8-8
Figure 10.1 (1) Distribution of sites per category of reservoir and par region	10-1
Figure 10.2 (1) Rivers of Niger	10-3
Figure 10.2 (2) Geological classification and distribution of the water reservoirs	10-4

Initials and abbreviations

A/P (Action plan)
ABEDA (Arab Bank for Economic Development in Africa)
ADA (Fish Farmer's Association)
ADB (African Development Bank)
ADSPR (Accelerated Development Strategy for Poverty Reduction)
AFD (French Development Agency)
AIDS(Acquired Immune Deficiency Syndrome)
AU(African Union)
BEA(Basic extension agent)
BHN(Basic Human Needs)
BLPC (basic land Property committees)
CADELT (Programme de Développement Local Tillabéri)
CDA (Chief of District Agricole)
CDP (Communities Development Plan)
CECI (Center for International Studies and Cooperation)
CIDA (Canadian International Development Agency)
CLPC (Community land Property committees)
CRS(Catholic Relief Services)
CSRA (Center of Support to the Rural arrangements)
CSW/PRS (conservation of surface water / protection and restoration of soils)
CTB (Cooperation Technique Belgium)
DDCD (Departmental Direction of Community Development)
DDDA (Direction of Department of Development Agricole)
DDE/FAD (Departmental Direction of Environment and Fight Against Desertification)
DED(German Development Service)
DIERA (Directorate of Installations and Rural Agricultural Equipments)
DLPC (Department land Property committees)
DPDE (Decennial program of education development)
DRDA (Direction of Region of Development Agricole)
DS (Dry Season)
DSP (Direction of Studies and Programming)
ECOWAS (Economic Community of west African States)
EIA (Environmental Impact Assessment)
ES/NCESD (Executive Secretariat of National Council of Environment for Sustainable Development)
EU (European Union)
FAO (Food and Agriculture Organization)
FFS (Farming facilities shop)
FICOD(Fonds d'Investissements des Collectivités décentralisées) (LUCOP)
FMTE (Frame of Mean Term Expenditures)
FUCB (Federation of Union of Cereal Banks)
GA (general Assembly)
GDA (General Direction of Agriculture)
GDP (Gross Domestic Product)
GDRE (General Direction of Rural Engineering)

GNP (Gross National Product)
 GO (Global Objective)
 GTC (German Technical Cooperation)
 HCMNV (High Commissariat to the Management of Niger Valley)
 HDP (Health Development Plan)
 HIPC's (Heavily Indebted Poor Countries)
 HIV (Human Immunodeficiency Virus)
 HKI(Helen Keller International)
 ICFDS (Inter states Committee of Fight against the Drought in the Sahel)
 ICRISAT (International Crops Research Institute for the Semi -Arid Tropics)
 IFAD (International Fund for Agricultural Development)
 IGA (Income Generating Activities)
 IHC (Integrated Health Center)
 IMF (International Monetary Fund)
 ISC/DRS (Inter-ministry Steering Committee/ Development Rural Strategy)
 IsDB (Islamique Development Bank)
 JGRC (Japan Green Resources Corporation)
 JICA (Japan International Cooperation Agency)
 JIRCAS(Japan International Research Center for Agricultural Sciences)
 KFW (Kreditanstalt für Wiederaufbau)
 LPAS (Land Property Arrangement Scheme)
 LUCOP (Fight Against Poverty)
 MAD (Ministry of agriculture Development)
 MAR (Ministry of Animal Resources)
 MDGs (Millennium Development Goals)
 ME/F (Ministry of Economy and finances)
 ME/SAD (Ministry of Environment and Fight Against Desertification)
 MLAI (Ministry of Live stock raising and Animal Industries)
 MTA/CD (ministry of Territory Arrangement and Community Development)
 MTIN (Ministry of Trade, Industry and Normalization)
 MWR (Ministry of Water Resources)
 MWRE/FAD (Ministry of Water Resources , Environment and Fight Against Desertification)
 NAPPI (Niger Association for the Promotion of the Private Irrigation)
 NCESD (National Council of Environment for Sustainable Development)
 NERICA (New Rice for Africa)
 NGO (Non Governmental Organization)
 NIARN (National Institute of the Agronomic Research of Niger)
 OPEC (Organization of Petroleum Exporting Countries)
 P (Program)
 PAC (Community Action Program)
 PADAZ (Projet d'Appui au Développement Agricole dans la Région de Zinder)
 PADL (Support to local Development Program)
 PCLCP (Programme Cadre de Lutte Contre la Pauvreté)
 PCM (Project Cycle Management)
 PDF (Peasants-Demonstration-Field)
 PIP (Project for the promotion of private irrigation)
 PIP II (Project for the promotion of private irrigation II)
 PMC (Prime Minister's Cabinet)
 PP (Pilot project)

PRA (Methode of Participatory Rural Appraisal)
 PRDT (Project of Rural Development of Tahoua)
 PRONFED (Program of Non Formal Education Development)
 PRS (Poverty Reduction Strategy)
 PRSP (Poverty Reduction Strategy Paper)
 PSEAU(Projet de Sécurisation de l'Elevage et de l'Agriculture péri Urbains)
 PSFS (Project of Support to Food Safety)
 PSHFS (Project of small Hydraulics for the Food Safety)
 PSSA (Programme spécial de sécurité alimentaire) (FAO)
 PVDT (Project of Valorization of water in Dosso and Tillabéri regions)
 PWMT (Project of Water Mobilization of Tahoua)
 RAP (Regional Action Plan)
 RCAR (Regional Center of Agronomic Research)
 RDE/FAD (Regional Direction of Environment and Fight Against Desertification)
 RDL/AI(Regional Direction of Livestock/ Animal Industries)
 RDS (Rural Development Strategy)
 RDS-SE (Rural Developemnt Strategy/ Executive Secretariat)
 RDTA/CD (Rgional Direction of Territory Arrangement and Community Development)
 RD-TC (Rural Development Technical Committee)
 RS (Rainy Season)
 RSCA/PRO(Regional service of cooperative action and promotion of rural organisms)
 RVP (Reservoirs Valorization Plans)
 SCAC (the Co-operation and Cultural Action Department)
 SES (Standard Evaluation System)
 SFSS (Support to Food Security through the Small scale irrigation)
 SMC (School Management Committees)
 SMNR (Sustainable management of natural resources)
 SNV (Netherlands Development Organization)
 SO (Specific Objective)
 SP (Sub-Program)
 SPPR (Special Program of the President of the Republic)
 SSOD (The study on sahel oasis development)
 TCLW (Training Center of Literacy Workers)
 TFP (technical and financial partners)
 TP (Text Pedagogy)
 UNDP (United Nations Development Programme)
 UNICEF (Unite Nation Children's Fund)
 UPA/DM (Unit of Precocious Alert and Disaster Management)
 USAID (United States Agency for International Development)
 VDC (Village Development Committee)
 VDP (Village Development Plan)
 WADB (West African Development Bank)
 WAEMU (West African Economic and Monetary Union)
 WARDA(West Africa Rice Development Association)
 WFP (World Food Programme)

Exchange rate

1 USD = 93.13 Yen

1 EUR = 133.96 Yen

1 FCFA = 0.207 Yen

(Exchange rate of JICA in September 2009)

Abstract

I Introduction

1.1 Objectives of the study

This study is carried out on the basis of Scope of Work (S/W) concluded in February 2005 between the Japanese Agency of International Cooperation (JICA) and the Government of Niger. The study area is consisted of the sites of water reservoirs built in 5 regions of Niger, within the framework of the Special Program of the President of the Republic, and the villages surrounding them. The aims of the study are:

Overall objective: To contribute in poverty reduction through the implementation of rural development actions carried out by the populations, centred on the valorization of water reservoirs (dams and weirs).

The specific objectives are:

- (1) To clearly establish an action plan to implement and to provide some rural development actions carried by populations through farmer to farmer transmission, with the support of government services and NGOs
- (2) Through the execution of pilot projects, to proceed to the reinforcement of government services capacities (central and local level) and those of populations (populations organizations)

1.2 Study area

The zones of the study for the two phases are defined as follows:

Phase 1(From the stage of the study on actual situation to the elaboration of draft action plan):

The zone of the study was consisted of the 66 sites of water reservoirs built in Tillaberi, Dosso, Tahoua, Maradi and Niamey regions, as of the 285 villages which profit from it.

Phase 2(From the stage of the implementation of the pilot projects to the elaboration of action plan):

The zone of the study is consisted of the 4 pilot sites of water reservoirs and of the 20 villages which profit from it, selected among the targeted reservoirs and the villages during the first phase.

II Presentation of the Study Area

2.1 Presentation of Niger

2.1.1 Natural conditions

(1) Localization

Niger is a landlocked country of 1,267,000 km² (that is 3.4 times the surface area of Japan), located in the region known as “Sahel” witch border the Sahara desert in its southern part. The desert covers 2/3 of the territory. The study area, which comprises Niamey, Tillabery, Dosso, Tahoua, and Maradi regions, covers over 286,517 km² and is equal approximately to 23% of the national territory. These regions border Mali, Burkina Faso and Nigeria.

(2) Climate

Niger is divided into 4 climatic zones ranging from Saharan zone to Soudano-sahelan zone. Here are the characteristics of these various zones in terms of rainfall and vegetation.

- ① Saharan zone: Rainfall reaches at most 150 mm. The vegetation of this zone can be found in some areas, particularly in valleys and oasis. In the study area, this zone corresponds to the extreme-north part the Taoua region.
- ② Sahelo-saharan zone: Rainfall ranges from 150 to 350 mm. It is covered with grass steppe, and grazing is common practice. In the study area. This climatic zone corresponds to the north of the Tillaberi region, to the center-north of the Tahoua, and to the north of the Maradi.
- ③ Sahelian zone: Rainfall varies between 350 to 600 mm. This zone is favorable to agriculture and high density area. In the study area. This climatic zone corresponds to the center-south of the Tillaberi region, to the Niamey, to the center-north of the Dosso, to the south of the Tahoua, to the center-south of the Maradi.
- ④ Soudano-Sahelian zone: Rainfall varies between 600 to 800 mm. Its vegetation is savanna type and it is favorable to agriculture, it is a high density area too and it comprises Niger part of “w” park. In the study area, this climatic zone corresponds to the extreme-south of the region Tillaberi and the south of the Dosso.

2.1.2 Society

(1) Population, ethnic groups

The population of Niger is 11,060,000 inhabitants (2001) of which 18 % live in urban area and 82 % in rural area. The population is gathered in the southern zone of the country where rainfall is equal or higher than 300 mm, suitable for rain fed agriculture. The five regions of the study area are included in this zone except the northern part of Tahoua region. The population growth rate is 4.5 %, and it will be estimated that if this growth continues the population will double in 20 years.

The main ethnic groups are the Songhay-Djerma, the Haoussa, the Fulani and the Touareg. These four ethnic groups represent 90.4 % of Niger population. Among them, the Songhay-Djerma and Haoussa are sedentary, mainly practise agriculture and live in the center and the south part of the country.

The Touareg and the Fulani which are nomads represent 17.8% of the population. These ethnic groups mainly live in the northern part of the country, but because of important damages caused by drastic drought on stock raising and the decrease in rainfall during recent years, there is an increase in the number of settled. Touareg and who begin to practice agriculture.

(2) Structure of the villages

The village is the basic administrative unit in Niger, and the villages have a scatted type. There are families (larges families) in a village which are the fundamental units for economic activities, notably agricultural management, and daily life. These families include many households that vary from 2 to more than 10. The decisions at the village level are often made by the chief of the village after discussion with the heads of family.

(3) Housing

The layout of site surrounded by wall made up of banco, rooms, kitchen, toilet, porch, enclosure for animals, stores etc. Houses are made up of banco. Most often a house comprises 1 or more than 2 rooms in which live 2 to more than 10 person. Many houses have toilet which serve as the shower room and the toilet for urine, but excrement frequently take place outside the houses, in the bush for instance.

(4) Village organizations

Concerning the fundamental structure of a traditional village, The village chief who has the inherited traditional power is at the top, the district chiefs are responsible for what concern the daily

life of villagers, and elders, traders, retired workers, imams (word of origin used to indicate persons that preach the Koran) as advisers help the village chief managing the village. The socio-economic groups of the village interested in different scopes (agriculture, livestock rising, apiculture, hunting, fishing, etc.) are organized and chiefs of these organizations advise the village chief in their area of activity.

(5) Incomes, poverty

In Niger the optimum poverty line is fixed to 50,000 FCFA mean annual income per person in rural area (75,000 FCFA in urban area), and for the extreme poverty line an income of 35,000 FCFA per person (50,000 FCFA in urban area). Based on these indexes, 86% of Nigeriens in rural area live below the optimum poverty line, and 36% of them live below the extreme poverty line. 2/3 of persons living below the extreme poverty line are women.

(6) Women in the rural society

The women in Niger are in charge of all kinds of daily tasks, starting with the seek of fire wood, but also the dehusking and crushing of millet, fetching of water, children health care, washing, assistance to agricultural work, etc. In rural medium particularly, they are placed at the bottom of the social scale, and have relatively few possibilities of taking part in the significant decision-makings. Fire wood occupies 92 % of the sources of domestic energy in urban area and 96.1 % in rural area (Poverty Reduction Strategy, 2002), and, with increase in demography, the quantities of fire wood taken increase considerably. For this reason, the forest resources decrease very quickly and the time spent for gathering fire wood is increasingly long.

(7) Health, hygiene and education

Niger is classified at the 174 of 177 countries for the human development index according to the Human Development Report (2007-2008) of the United Nations Development Program; (UNDP). It is a country very late in terms of social development. The death rate for children under 5 years is 176 per thousand. This rate is higher than that of west and center Africa which is of 169 per thousand. In addition, the coverage rate in terms of modern water facilities and adults' literacy rate are very low compared to the rate in sub-Saharan Africa.

2.1.3 General information on the economy, and agro-sylvo-pastoral activities

(1) General information on the economy

In Niger, the Gross National Product (GNP) was 120,976 FCFA (equivalent of 230 Dollars) per inhabitant in 2004 and the country was classified by the World Bank in the group of least-less-developed countries of the world. This Gross National Product is increasing a little bit every year, but as the population continue increasing even that the production unit area has still not been changed, the GNP per inhabitant tends to become lower from year to year.

The commercial balance of Niger is suffering from a chronic deficit which denotes itself by the amounts of importations that double the amounts for exportations, this deficit is only rising with years. More than half of importations concerns machineries, firstly cars and kerosene but also cereals representing about 20% of the total amount.

Though the large majority of Nigeriens live of incomes from the primary industries, uranium represents more than half of exportations and primary industries represents only 27% of total exportations. The most important amounts in terms of exportations from the primary industries come from livestock rising which reaches 18.2% of the total with 22 billion and 569 millions CFA and cattle alone represent 8.3% of total exportations. Agriculture represents only 9% of the total with an amount of 11 billion and 214 millions CFA that come from onions, cowpea and cotton in descending order of importance. Productions from primary industries are always getting used to satisfy the national demand notably because of climatic variations and increase in population; that is why the amount of exportations is decreasing with years.

(2) Agriculture

Agricultural lands in Niger are limited to the southern part of the country and only 12% of the territory can be utilized. Millet and sorghum are the main agricultural products that occupy the two third of the total agricultural lands (15 million hectares). To cover the rapid increase in population which is over the annual rate of 3%, yields are increasing due to the extension of unit area. However, as rainfed agriculture is dominating, yields depend on rainfall. For instance in 2004 a small drought caused a drastic diminution of planting area and yields. Fundamentally the agricultural practice is family type carried out using traditional skills which requires man's labor force therefore leading to low productivity. The mean surface area of an economic unit is 5 hectares, and the number of labor force employed is 6. The low application of organic matter, the reduction of fallow periods and clearing of non fertile lands induce the extension of water and wind erosion therefore reducing their productivity. Irrigated agriculture is generally practiced on small scale surface area. Agricultural field area goes from 0.25 to 0.50 hectares per family. These lower areas result from inheritance succession which makes it more difficult to ensure the farming cost - effectiveness. Moreover, insufficiencies in terms of community water management and difficulties in equipments management are the obstacles for the long lasting of irrigation systems. Consequently, to maintain or to increase the productivity in the view point of food security in Niger, it is urgent to increase the rainfed agricultural productivity per unit area and to extend irrigated agriculture.

(3) Livestock rising

In Niger, this sector represents constantly every year 10% of the GDP and contributes well to the country's finances and economy through local national tax. The stock is increasing these recent years. The number of animals possessed, as a mark of power for herders, they prefer the increase in number of animals instead of increasing their income by selling the animals. When farmers possess a financial margin they prefer to save by buying more animals instead saving money. The increase of the animal stock these recent years makes the access to fodder from grassland difficult and induces a competition for fodder between breeders and for frictions with farmers.

(4) Situation of the forest resources

The 5 regions are relatively favored in terms of vegetation, but this vegetation is gradually being degraded by desertification. This phenomenon is particularly pronounced in Tillabery and Tahoua regions. Government uses all his efforts in these two regions for restoration, but the restoration zones represent less than 1% in terms of area.

2.1.4 Strategies and policy of the State as regards rural development

The Development plan at national level placed at the top of the action plan established by this study is the Poverty reduction strategy which has the objective of reducing the number of Nigeriens living under the poverty line from 66% to less than 50% in 2015. Downstream of this strategy, strategies/ development plan were established in different sectors and the upper level plan in direct relation with this study is the Rural Development Strategy (RDS).

2.1.5 Ministries in connection with the rural development

The ministries which are in charge of the international Piloting Committee of the RDS are, the 5 ministries below concerned by the rural development, and as involved ministries, the Ministry of Trade, Industry and Normalization (MTIN) and the Ministry of Economy and Finances (ME/F) take part.

- The Ministry of Territory Arrangement and Community Development (MTA/CD)
- The Ministry of Agricultural Development (MAD)
- The Ministry of Water Resources (MWR)

- The Ministry of Environment and Fight Against Desertification (ME/FAD)
- The Ministry of Livestock and Animal Industries (MLAI)

Some problems common to the five (5) ministries are:

- The insufficiency of human resources in number and in quality
- The insufficiency of budget in terms of investments as well as the functionality to ensure the supervision missions in the rural area
- The deterioration of equipment and vehicles, the amortization of materials
- The complexity of procedure for partnership actions, and the lack of synergy.

2.1.6 Position of the main financial backers in the rural development

When analyzing the actual tendency of the financial donor's activities for the rural development, there is much assistance in water supply, hygiene, irrigation, food security, poverty reduction, local development and the micro-credit, particularly for the reinforcement of capacities of communities established in 2004. Also following the food crisis of 2005, many financial donors are undertaking activities in the scope of food security

2.2 Situation of the water reservoir and categorization

An inventory study as well as a categorization of 66 sites of water reservoirs built during the first phase (2001-2002) and the second phase (2003-2005) of the Special Program of the President of the Republic, or whose construction is almost completed, were carried out. The water reservoirs are divided into two types according to their functions: small scale dams and weirs.

2.2.1 Small scale dams

The small scale dams are reservoirs which retain the water of the rivers in wintering by a tight threshold, and make it possible to store water upstream threshold. They are of trapezoidal section and are built of tight materials. In general, they are provided with a spillway at the center of the threshold. The agricultural use of the soils around the small scale dams is done mainly in the form of irrigated agriculture solely downstream of the dam. If the dam has heading reservoir, the gravitating irrigation is possible, but if there are no heading reservoirs, it is the irrigation by manual pumping out or using pumps, that is practiced

2.2.2 Weirs

The weirs do not have as a function to stop completely the water run-off. They are set up in the minor bed of a seasonal river to reload of water the soils upstream by lengthening the period during which the upstream part is temporarily immersed. The reservoirs are normally of rectangular section, and often composed of filter gabions overlapped the ones on the others. The agricultural use of the soils around the weirs is mainly carried out in the form of flood recession farming and irrigated agriculture, on lands with soils soaked with water of the easily flooded zone upstream of the weir.

A categorization was carried out by considering the functions and the current state of the water reservoirs (situation of sand accumulation, period of water storage, existence or not of significant deteriorations caused to the reservoirs, objectives of their construction).

Table 2(1) Summary of the water reservoirs categorization

Categories	Large distribution	Classification per structure		TOTAL	Region				
					Dos	Mar	Nia	Tah.	Til
Category 1	The agricultural use of water resources is possible.	Small scale dams		17	3	3	3	2	6
Category 2		Weirs		21	3	8	0	9	1
Category 3	The agricultural use of the resources is currently impossible or it will be in a few years.	Small scale dams (storage period :less than 6 months)		7	5	0	0	0	2
		Weirs (sand accumulation: less than 5 years)		15	5	5	0	0	5
		Urgent repair necessary	Small scale dams	28	3	0	0	0	3
			Weirs	1	0	1	0	0	0
		Non agricultural objective	Small scale dams	1	0	1	0	0	0
			Weirs	1	0	0	0	1	0
TOTAL				66	16	18	3	12	17

2.3 Situation of villages around water reservoirs and development constraints

The results of the analysis of problems encountered in implement actions of rural development where the populations play the main role and the survey of measures are indicated in the Table below.

Table 2(2) Results of the analysis of problems and countermeasures

	Problems		Measures	
Measures to problems of obstacles to rural development	Problems not solved		Measures not considered	
	Problems to solve	<ul style="list-style-type: none"> • State services supervision and assistance to villages is weak. • The organization not adapted. • The methods and the capacities necessary to villagers (organisations) do not follow 	Measures to be taken	<ul style="list-style-type: none"> • Reinforcement of the existing extension system • Reinforcement of the capacities of extension agents • Best adaptation of the organisation • Reinforcement of populations capacities and introduction of methods their require
Content of the government actions	Problems not treated		Measures not considered	<ul style="list-style-type: none"> • To develop the bio-diversity • Adjustment of watering infrastructure for animal • Family planning
	Problems to be treated		Measures to be taken	<ul style="list-style-type: none"> • Management of waters and lands • Application of the rural code • Prevention of erosion • Promotion of tree planting • Consideration of the environment in agro-pastoral activities • Installation and or rehabilitation of tracks for animal movement • Improvement of women literacy rate • Improvement of nutrition • Sensitization on hygiene and health • Participation of villagers to health and hygiene activities • Assistance to socio-economic activities of women • Support to women initiatives • Equal access to men and women for production factors
Measures in responses to population needs	Problems not treated	<ul style="list-style-type: none"> • Developments for the use of water in the reservoirs are insufficient. • The level of techniques for livestock raising is low • There is no primary and secondary schools • There is no SMC • There is no general health center • There is no infrastructures in the village 	Measures not taken into account	
	Problems to be treated	<ul style="list-style-type: none"> • The level of agricultural techniques is low • Investments in agriculture are insufficient. • There is no cereal bank • The environment is deteriorated. • The self sufficiency is not possible. • Many damages caused by animals • There is no pasture • The water reservoirs sites are not organised. • The sources of non agricultural incomes are limited. • No credit system • The knowledge of health and hygiene is weak. • Adult's illiteracy rate is high. • Much time to collect fire wood 	Measures to consider	<ul style="list-style-type: none"> • Improvement of agricultural techniques • Improvement of techniques for agricultural management • Conservation of arable lands (agro-forestry) • Adjustment of pastoral zones as measures against damages caused by animals. • Organization of reservoirs users • Reinforcement of capacities in maintenance of reservoirs • Assistance to income generating activities • Introduction of a system of turning saving and credit • reinforcement of knowledge in health and hygiene • reinforcement of capacities in reading and writing • Introduction of improved cooking stoves

III Action plan

3.1 Objective of the action plan

The Study started in November 2005 with the objective of “establishing clearly an action plan to implement and to provide actions of rural development carried out by the populations by the transmission of farmer to farmer, with the support of government services and the NGO.” The draft action plan was established with this objective in September 2006. Then, the pilot projects were carried out from October 2006 to June 2009, in order to establish the action plan that proves and reflected the content of the draft action plan. Consequently, the objective of the action plan has finally been corrected to be "To implement and to provide actions of agricultural development carried out by populations, centered on the valorization of water reservoirs through farmer to farmer transmission, with the support of government services", in the targeted region.

A point that is different for the objective of survey and the action plan, and the reason for change is as in the following table.

Table 3 (1) Reason of change of the objective of survey and the action plan

	Difference point	The reason for change
1	Support of government services and the NGO→Support of government services	Most booklets that are needed for the implementation of the action plan were established during the pilot phase. It is expected that government services will be able to carry out the training retained in the action plan with the established booklets. That is why the NGO services are not needed.
2	actions of rural development carried out by the populations →actions of agricultural development carried out by populations, centered on the valorization of water reservoirs	In the time of the beginning of survey, the farming development was thought more as important. Therefore, it has been planned in the draft action plan, the installation of village development committee, the cooperative of reservoir users, with collaboration between these 2 organizations. However, it became clear during the execution of the pilot projects that it very difficult to have a kind of collaboration between these 2 organizations. Therefore, it was judged that more importance should be done on the valorization of water reservoirs through the installation of reservoir users cooperative. That is why the objective has been modified: [actions of agricultural development carried out by populations, centered on the valorization of water reservoirs] was changed.

3.2 Basic elements of the action plan

3.2.1 Starting year and horizon of the plan

The reference year of the plan is fixed to 2009, ending year of the pilot project. The actions will start in 2010, and the horizon of the plan is fixed to 2015, the same year as for the plans upstream Poverty Reduction Strategy and Rural Development Strategy.

3.2.2 Number of reservoirs and number of villages of the action plan

There were, in August 2009, 66 reservoirs meant to be part of the targets of the action plan, namely the 64 existing reservoirs and the 2 reservoirs (Zongon Roukouzoum and Guidan Bado) whose building work was to be completed in a few years. For 26 of these reservoirs arising from the category 3 and which should cease functioning in the near future because of sand accumulation or the state of the facilities, it is not necessary to wait for the implementation of a rural development undertaken by the populations which is centred on the valorization of the water reservoirs. In addition, the actions are already carried out through the pilot projects for 4 reservoirs of Tahoua region (the reservoirs of category 1 of Guidan Bado, the reservoir of category 2 of Edouk and Bourdi I, and reservoir of category 3 of Jaja, built for a pastoral use). That gives a total of 30

reservoirs which will not form part of the targets of the action plan. 36 reservoirs are thus retained as target reservoirs for the action plan, namely the remaining 35 reservoirs in categories 1 and 2, and reservoirs of Bokologi, of category 3 but used for the watering of the animals.

In the action plan, the term of "villages surrounding the water reservoirs" is used in the direction of villages in which peasants used at the date of June 2006 the water of a reservoir with an agricultural aim. However, in the case of water reservoirs built with other aims rather than agricultural, the villages which were regarded as recipients during the establishment of the plan of construction of the reservoir are regarded as bordering villages. Under these conditions, the number of villages targeted by the action plan, as indicated in the following table, is of 159 villages.

Table 3(2) Number of works and villages target action plan area by area

Concerned regions	Total number of water reservoirs	Total number of profit villages
Dosso	6	23
Maradi	12	60
Niamey	3	12
Tahoua	8	44
Tillabery	7	20
Total	36	159

Source: Study team (2008 for the number of villages in Tahoua region, 2006 for other regions)

3.3 Orientations for the establishment of the plan

The basic orientation for the elaboration of the plan is based on 4 points: "Self development", "Management of the sites by the peasants", "Installation of Peasants Demonstration Fields", "Redefinition of the role of extension agent and collaboration with the local government". The detailed contents of the basic orientation are presented as follows:

3.3.1 Self development

The self development¹ of population is the main orientation in order to achieve the objective that is to implement and extend the rural development by population themselves. The peasants in Niger up to now, they haven't tackled sufficiently and continually with the problems of development by themselves. It is popular that, while the some assistant from the government donors and NGO etc. are continuing, they also continue some activities. However once the assistance stops, the activities of peasants also tend to stop. To use continuously the small reservoirs which were newly constructed as rural resources, the peasants need to change their mind to continue the activities of rural development and life condition improvement after the initial outside assistance. For this purpose it should be make the peasants to become aware that they are the main actors of development of the small reservoirs, and also to imply themselves continuously in the agricultural development. It is also necessary to introduce a mechanism by which the local populations can be capable to analyze the situation of small reservoirs, to choose the measures to be taken, to carry out and manage them. In this case of utilize the small reservoirs, due to the individual actions are very limited, that is why, it is essential to promote of establishing the peasants organization. This peasant organization synthesizes the problems identified by farmers related to the development of its activities and analyzes the potentialities. It is from the outcomes of this analysis that the development plan of the activities will be established by distinguishing the realizable actions with peasant's own financial and physical resources. It should focus initially on the realization of the actions by peasants in an interdependent way. With the experiment "of carried out alone the plan

¹ "Self development" means that peasants act by themselves for their development without waiting outside assistance, that is to say, the peasant think and act by themselves. As the basic orientation, "self development" means to facilitate and cultivate the peasants who think and act by themselves.

they established", the peasants will gain confidence in themselves as executants for the development of their activities and will be able to establish further plans. That is to say self development is advanced.

3.3.2 Management of the sites by the peasants

[Management of the sites by the peasants] explains the orientation of elaboration of Action Plan related to the purpose of "To implement and to provide actions of agricultural development carried out by populations, centered on the valorization of water reservoirs". In order to use continuously the small reservoirs those are newly constructed resources, it is necessary not only to make a plan to proper use of farmland and water resource, and its implementation but also to make countermeasures against the problems which also newly created after the construction of the reservoirs. Actually the number of beneficiaries tends to increase after the construction of the reservoirs, but farmers do not care land property problem or water use right problem caused by increase of beneficiaries. If these farmers continue to exploit the sites in a disordered way, in the future this situation will create problems between farmers. In addition, many reservoirs built within the framework of the special program of president present problems (sand accumulation, deterioration of reservoir etc.) which worsen with time. This is why, it is necessary to face urgently these problems, to ensure the durable valorization of resources on these sites. This requires the installation of the cooperative and the basic land property committee for a durable valorization of the resources (arable land and water etc.) on the sites. The role of the cooperative and the basic land property committee is shown as follows;

(1) The role of the Cooperative

The establishment of the cooperative will be implemented with the following orientation.

- ① Do the selection of executive members with the transparency based on the independence and responsibility
- ② Introduce the democratic mechanism which ensures the number of representatives proportioned to the numbers of beneficiaries in each related villages.

In order to assure above mentioned orientations, we facilitate the peasants to choose reliable leaders, to clarify the role of each members and to inspire the initiative and the responsibility of each member. The roles of the cooperative are as follows;

(a) The valorization of water reservoirs

They elaborate a plan to use water and farmland resources, and implement, monitor and evaluate it. With relating to this, it will be set up an information system on the prices of the agricultural products and agricultural inputs bank. The cooperatives also will be in charge of the management of these systems as well as management of equipments and materials acquired within the framework of the other activities (for instance, motor pumps etc.).

(b) Effort to increase the member of cooperatives

When they establish the cooperatives, usually every beneficially doesn't become member. Therefore when agricultural equipments are sold or lent, by setting the different price between members and non members, they can appeal the merit of member to non member and promote them to be member. They apply different prices however they sell and lend the equipments to non member. It makes possible to extend the benefice of agricultural development to neighboring villages of reservoir.

(c) Countermeasures against the problems of the number of farmers tending to increase:

The exploitable surface areas and the water resources are limited. In the future, there will be the need for the set up of a system of limitation of the number of farmers of the site. The cooperatives consequently, must discuss during GA and with complete freedom, of the current state of arable

land use and use of water resources during the execution of AP; that will permit the members of the cooperative to become aware of the current situation and the need for the control of the number of farmers of the site. In the event of need, it is necessary to determine the rational number of farmers of the site in collaboration with the administrative authorities of the communal, departmental or regional level for a profitable exploitation.

(d) Countermeasures against the problems of management and maintenance of the reservoirs: Currently, many reservoirs do not have any mechanism of management and maintenance. This is why, many reservoirs comprising an earth dyke collapsed. For a beginning of degradation of the dam, there is the possibility of rehabilitation by farmers themselves. Therefore, the cooperative should be in charge of setting up a mechanism of management and maintenance of the reservoirs. But in the event of difficulty in the rehabilitation by farmers, the cooperative requires the support of the service of rural engineering in charge of the reservoirs.

(2) The role of the Basic Land Property Commission (BLPC)

The BLPC is a rural organization installed when required by government which bears management of the resources (land, water, etc.) in a village level, and involves mainly the chief of village as President. Although the government is promoting the installation of BLPC, data in 2006 gave a national establishment rate of approximately 15%. Moreover, more importance has been given to the installation of BLPC without considering the natural resources management aspect. That is why in most villages, the idea of natural resources management is insufficient. Consequently, the BLPC have following roles in collaboration with the cooperative;

(a) Countermeasure against land property problem:

Currently, farmers who wish to exploit the site can do it as owner or by asking an agreement or by paying expenses of hiring of piece of land from the owners. The number of farmers with times will increase and that is likely to cause conflicts between them. A control in the use of arable lands will be carried out by the BLPC in collaboration with the cooperative.

In the event of difficulty the BLPC requires the arbitration of the communal land Property Commission (CLPC), Departmental (DLPC) and regions permanent secretariat rural code.

(b) Countermeasure against the problems of use of water resources:

In Niger, there is the right of use of water for the perimeters only arranged. The sites of reservoirs built within the framework of the Special Program are not concerned by this measure. This is why, farmers on the sites are not aware of the right to use water from the reservoirs and use it in a disordered way without any control. But, in the event of intensive use of the water of the reservoir with time, there will be much of risks of conflicts. This is why; it is proposed the sensibilization of farmers on the significance of water use control. The cooperative should be in charge of the control of the right to use of water. The cooperatives will organize meetings with the users of water (farmers, stockbreeders...) during which it will be discussed in an objective way of the use condition of water resources on the site through view point's exchanges. The objective of this meeting is that all users understand the situation on the current use of water freely through opinions exchanges. In the event of difficulty of coordination, the cooperative requires the arbitration of the local land property Commission (BLPC), communal (CLPC), departmental (DLPC) and regions permanent secretariat rural code to serve as intermediary in solving water use problem.

(c) Countermeasure against the problem of damage caused by the animals:

Before the construction of the reservoirs, the actions to face these land property problems and conflicts between farmers and stockbreeders were not programmed. Currently, there are problems in this field on the level of certain sites. To prevent these problems so as to implement the land property, it is necessary to set up the BLCP on the level of the villages housing the sites. The cooperative and the BLCP must cooperate to bring effective solutions to these problems by the

installation of the passage corridors and demarcation of the pasture lands.

3.3.3 Installation of "Peasants Demonstration Fields"

"Peasants demonstration fields" explains the orientation of elaboration of Action Plan related to the purpose of "..... through farmer to farmer transmission," and means the concrete way.

The Peasants Demonstration Fields will be supplemented by practical meetings of demonstration of agricultural techniques on the level of the pieces of land of the "key farmers" to facilitate the comprehension and the conviction of other peasants. First stage: the extension agents transmit the agricultural techniques to the "key farmers" in the "peasant's demonstration fields". Second stage: the "key farmers" must inform other interested farmers on the techniques on their own pieces of land which will constitute some demonstration sites. Thereby, a ripple effect can be produced to the agricultural development of not only at water reservoir site level but also village surrounding the water reservoirs. The principles of the Peasants Demonstration Fields are as follows:

- For the practical training course, one CDA can supervise only 20 persons to facilitate the transmission of the techniques. That is why the number of participants will be limited to 20 persons. Each participant to the training becomes a key person and promotes the technical spread between farmers.
- Selection of farmers who have the will to acquire new techniques, having agricultural pieces of land and inputs. The selected farmers "key farmers" must commit themselves to transfer the techniques acquired to other interested farmers. This method has the merit to allow the effective application of agricultural techniques and to increase the demonstration effects

3.3.4 Redefinition of the role of the extension agent and collaboration with the local government

(1) Redefinition of the role of the extension agent

The action plan envisages that the regional directions of the agricultural development, the departmental directions of the agricultural development, the agricultural districts are responsible of the actions on their respective levels, considering therefore an importance to the assigned extension agents on the level of the commune to play the key role in animation on peasants level.

Within the framework of the implementation of the action plan, it will be requested from the extension agents to play fully their role of facilitation, i.e. to develop a will in the users of the reservoirs to face the various problems to which they are confronted, to sensitize them to engage and solve their problems using their own initiative, to carry out a follow-up of the activities after the establishment of the reservoirs valorization plan. The current work of the extension agents is centered on the forecasting study of the agricultural production particularly that of millet and sorghum which are the main cereals and they achieves only partially their mission of origin, that is the transfer to the villagers of the agro-sylvo-pastoral techniques which they master.

In the action plan, the capacities of facilitation of the extension agents will be reinforced on animation particularly in listening peasants and the checking out of received information so that they can fully play their role of facilitation. That allows these agents to strengthen their main mission work of technical support to the peasants. Figure3 (1) presents composition of facilitation

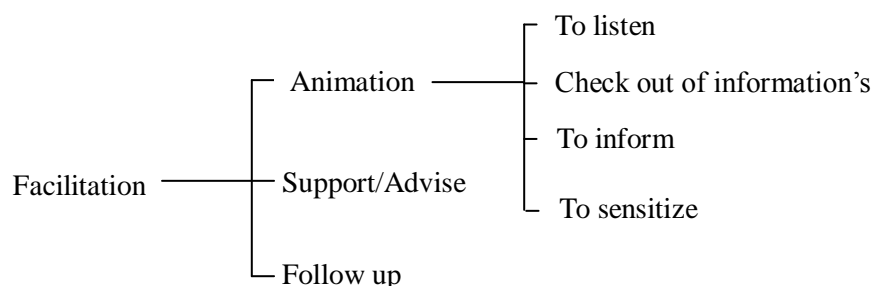


Figure 3(1) Composition of facilitation

(2) Collaboration with the local government

For the ownership and the implementation of the contents of the action plan after its execution, the State must provide the expenses of follow-up of the site by the extension agents, the expenses for the installation and the operation of a framework of dialogue at various levels (communes, departments, regions). Within this framework, during the execution of the action plan, we must work with local government especially communes in regarding the following points:

- To establish the contents of the support to populations in collaboration with the concerned communes
- For the implementation of the plans of valorization of the reservoirs, to establish collaboration relations with the concerned branch services (environment, livestock, health, education, etc....): before starting any type of activity. And it is necessary to inform the concerned service to have its approval for implementation. Also to report the result to the related communes.
- During trainings, it will be asked for participation of one representative of the community concerned
- As regards collaboration, to particularly share the information between the concerned structures such as regional governor, departmental prefect and mayor.

Through these activities it is necessary to convince communes while implementing the action plan to share the necessary cost for monitoring by extension agent after finishing the action plan.

3.4 Method of implementation of the AP

Before the implementation of the action plan it will be realized an environmental evaluation, as an baseline study, not only for the purpose of renewal of existing data but also for the purpose of gathering other data not available (data related to women work load for instance, resource management situations such as water, land, and vegetation) concerning the reservoirs. By utilizing these data, the constraint factors of the agricultural development around the reservoir will effectively be analyzed for them to be taken into consideration in the execution of the action plan at the level of each site.

For the efficient implementation of the AP on the level of each site of water reservoirs (Weirs and small scale dams), the 3 points "reinforcement of capacities of reservoirs users in self development", "improvement of incomes and living conditions of reservoirs users", "implementation of the AP stage per stage" will be used as follows:

3.4.1 Reinforcement of capacities of reservoirs users in self development

Within the framework of the AP, the cooperative of user of water reservoir will be set up and the BLPC created for the durable valorization of the resources on the site. These two structures will work out, carry out and ensure the follow-up and the evaluation of their activities with their own means. This intervention axis will concern all sites of the AP and will consist to bring a support to peasant organizations and the administration. Thus, the three following stages will be followed to

the level of all the sites:

- 1st stage: to support government technical services by the reinforcement of the capacities of the extension agents (support for animation, the support/advise and the follow-up: reinforcement of the sharing information system of the government services, training in various fields of agricultural development and logistical). At this stage, the extension agents will be trained or recycled in the field of sensitizing and follow-up over 3 months approximate period.
- 2nd stage: it is initially necessary to inform, sensitize farmers on the sites about the need for an organization, after organizing them and making them establish the reservoirs valorization plan (which will consider the maintenance and the durable management of the site) on the basis of their own resources. At this stage, it will be set up the cooperatives which will work out a plan of valorization over a period of three months
- 3rd stage: Installation of some BLPC at the level of the villages whose reservoir is located on their terroirs. At the same time of execution of the 1st and 2nd stages, the extension agents will identify the villages housing the site of the reservoir so as to check the existence and the functionality of the BLPC in these villages. The BLPC will be set up where ever they do not exist and to proceed to the reinforcement of their capacities if they do not function well. The natural resources (water, land, and a forest) management plan established by the cooperative for the valorization of the reservoir will be discussed with BLPC for execution.

Considering all above, it is necessary to take into account the two following points:

(1) Support to the management of the sites and the maintenance of the reservoir

For the effective use of a site, the problems, charging organization to carry out the projects and to provide the equipments and materials as indicated in the table 3(3):

Table 3 (3) Support to the management of the sites

Problems	Organizations in charge	Content of the actions, nature and destination of the equipment and materials
the problem of the number of farmers with tendency to increase,	Cooperative	Installation of reservoirs users cooperatives
Management and maintenance of the reservoir	Cooperative	Training on the maintenance of reservoirs (equipments and materials for the rehabilitation of the cooperative's reservoir)
the land property problem	Cooperative and BLPC	Installation of BLPC for the management of natural resources
water problem	Cooperative and BLPC	Installation of BLPC for the management of natural resources
the damages on reservoir level	Cooperative and BLPC	Installation of BLPC for the management of natural resources (equipments and materials for the installation of corridors of passage, pasture lands and agricultural zone)

(2) Collaboration between the cooperative and the BLPC:

In the AP, the cooperatives gain profits. The BLPC are organizations of public interest in the village which do not basically produce cash profit. This is why, it is necessary to create a mechanism through which the cooperative will support the activities of the BLPC with the profits it gains. For example, for the delivery of the land property acts, the cooperative can deal with the printed papers form.

3.4.2 Improvement of incomes and living conditions of reservoirs users

The main problems of the farmers on the sites are the lack of agricultural inputs such as pesticides, improved seeds and the lack of experience in terms of agricultural techniques etc. Providing a support to establish the cooperatives facing these problems, it is hoped for the reinforcement and sustainability of the will to establish the cooperative, to act for the development of peasant's

activities and an improvement of their incomes. Therefore, it will be provided a support of technique of valorization of reservoir by using the diffusion method "peasants by the peasants" taking into account of the specific needs for each site.

Since the natural, socio-economic and topographic conditions differ for each site of reservoir in the zone of the action plan, the needs for development also vary according to the sites. Consequently, the actions to be carried out in the various sites will be proposed in the form of menus entitled "improvement of incomes and living condition of the reservoir users", by taking into account of the needs of each cooperative. This section concerns all agro-sylvo-pastoral activities that can be realized at the level of each site according to it's specifically.

To give the cooperatives a sense of responsibility and to lead them to adapt the actions, they must deal with the labor, the local equipments and materials, a financial contribution and an availability of a land within the framework of the improvement of incomes and living conditions of reservoirs users. The actions for the improvement of incomes of reservoirs users whose conditions will not be met by the cooperative will not be carried out.

The improvement of incomes of reservoirs users within the framework of the AP for instance does not concern, the construction of new roads or tracks, repairs of the reservoirs and the adjustments of water use facilities requiring some large investments, etc. For these actions, a support for the reinforcement of the capacities as regards the establishment of requests will be given, so that the cooperatives of users can address financing requests near other support structures.

The execution procedure of actions for the improvement of reservoirs users till the popularization of the techniques between peasants is detailed below:

- In the event of training on the techniques, the executive members of the organization call a general assembly to nominate the persons to train "key farmers". The organizations will analyze their potentials in term of human resources, then will select the "key farmers", able to diffuse the new techniques learned during trainings. The selection criteria of the "key farmers" are: (1) must commit themselves in diffusing the new techniques acquired to other farmers, (2) to be ready to practice the activity after the training, (3) to agree to be sanctioned by the cooperative if he is known to be guilty of non respect of the two points above. To consider the women and the young people in the selection of the participants to the training. The "key farmers" will be trained and they will deal with the self supervision.
- The execution of the trainings will be adapted to the method of "Peasants Demonstration Fields" which constitutes the basic orientation. Consequently, it is necessary to carefully use documents understood by the peasants having few capacities as regards reading and as far as possible containing some images and pictures. Take also care that these documents are immediately available for the peasants when they need some.
- After the training, the trained people "key farmers" make the office of the cooperative to call a general assembly. The diffusion of information on site level can be ensured by the members of the cooperative having attended the general assembly. The farmers interested by the new techniques can come near the "key farmers" to acquire them. The techniques on which the "key farmers" are trained must be shown to other interested peasants (farmers on the site and inhabitants of the neighboring villages). Sensitizing will be done during visits of individual or collective observations.

3.4.3 Implementation of the AP stage by stage

In order to continue the peasants' activities by themselves after finishing the three year action plan, the achievement degree of "Self development" is important key factor. As a method to measure the achievement degree of "Self development" the following items will be evaluated at the end of first year.

Related to reservoirs valorization plan, whether the plans which can be realizable by peasants themselves are included or not? Whether the responsible persons, budgets and executing periods are adequate or not? The maintenance plan for reservoirs and the plan for damage by animals are essential because related training would be finished by then.

Once the above mentioned plans are judged adequate the project office propose the menu of activities for improvement of incomes and living condition and their condition for approval, then the cooperatives study the activities based on the condition. After that, the cooperative apply the activities to the project office and after the examination and approbation by the office, the activities will be implemented.

As the condition of approbation, a physical, material and financial contribution will be requested. In the case of non respect of contribution by the cooperative, all the support of activities for improvement of incomes and living condition will be suspended, and meanwhile, the cooperative must bring solutions to the problems.

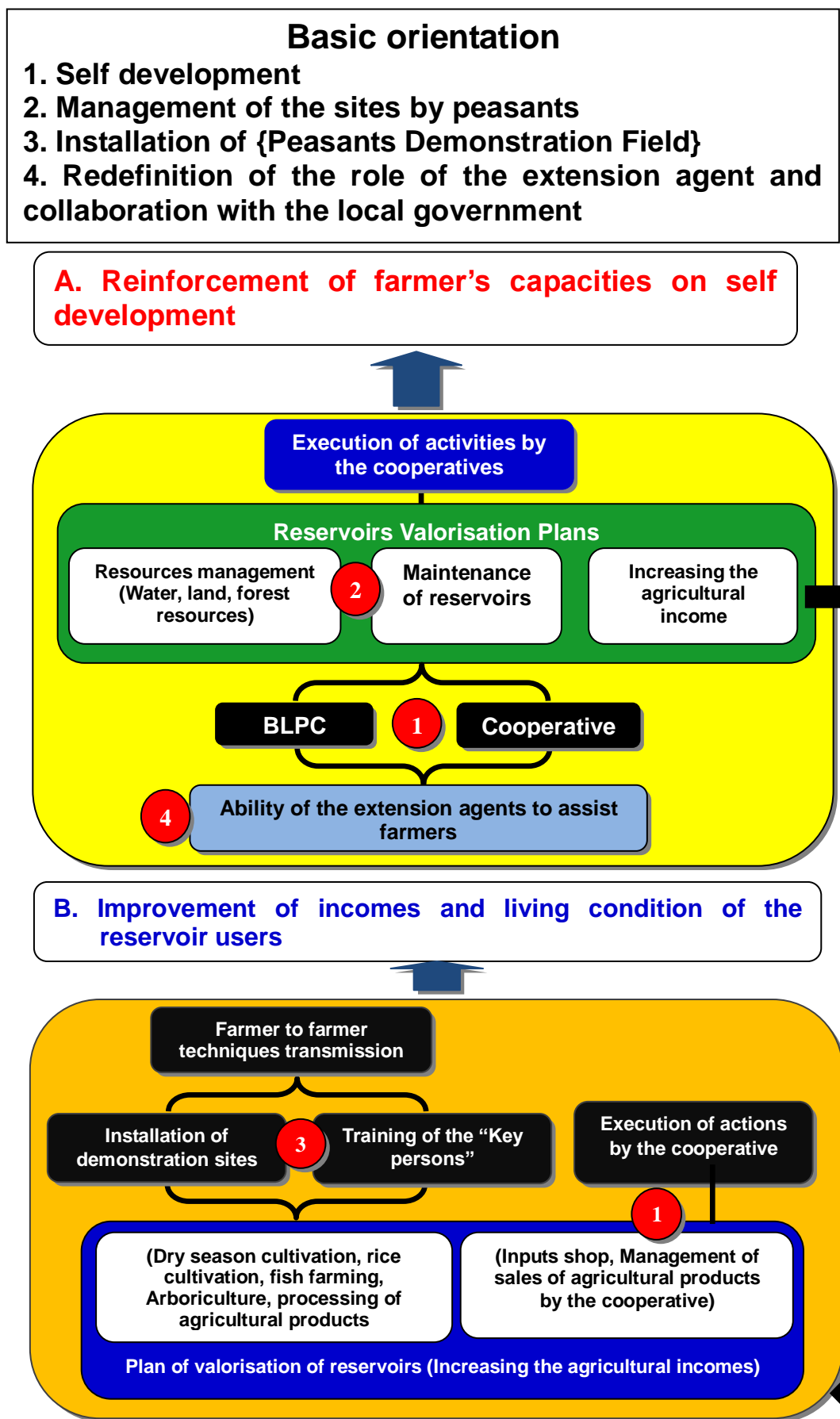


Figure 3 (2) Implementation of the AP stage by stage

IV Mode of execution of the action plan

4.1 Key points of the action plan

It can be found in the table below a summary of the basic elements, objectives, actors responsible for the actions and the content of the actions.

Table 4(1) key Points of the action plan

Recapitulated points	Details	Explanations	
Horizon of the plan	Year 2015	Duration of the project:6 years	
Zone object of the plan	5 regions	36 water reservoirs,159 villages	
Objective of the plan	Direct objective	To implement and to deploy actions of agricultural development carried out by populations, centred on the valorisation of water reservoirs by the through farmer to farmer transmission, with the support of government services	
Actors responsible for the actions of the plan	Level of official services	Office of the project organized around the Regional Directorate of the Agricultural Development	
	Reservoirs level	Users of the reservoirs, around the persons in charge of the cooperatives of users of the reservoirs	
Orientations for the establishment of the plans	Self development	To make the peasants to become aware that they are the main actors for the development of their living area The peasant are continually involved in the agricultural development Installation of cooperatives.	
	Management of the sites by the peasants	Sustainable water, arable land and forest resources management Maintenance of reservoirs	
	Installation of peasant demonstration field	The application of agricultural technique Installation of site for demonstration Training of key peasants	
	Redefinition of the role of extension agent and collaboration with the local government	Technical assistance To which the dynamisation of organizations is added Sustainable execution of activities after the implementation of the AP Collaboration with the local government	
Context of components	A. Reinforcement of capacities of reservoirs users in self development	A.1.Reinforcement of capacities of basic extension agents	A1.1 To put at the disposal of the basic extension agents
			A1.2 Reinforcement of capacities of basic extension agents in organization of reservoir users
			A1.3 Installation of a system of distribution and capitalization of information
		A2.Reinforcement of farmer's capacities in planning, execution, monitoring and evaluation of actions for the valorisation of the reservoir	A2.1 Installation of reservoirs users cooperatives
			A2.2 Training on the establishment, execution, monitoring and evaluation of reservoirs valorisation plans (RVP)
			A2.3 Training on the maintenance of reservoirs
			A2.4 Installation of BLPC for natural resources management
			A2.5 Training on struggling against sand accumulation
	B. Improvement of incomes and living conditions of reservoirs users	B1. Intensification and diversification of dry season cultivation	B1.1 Training on dry season cultivation techniques
			B1.2 Reinforcement of irrigation system
		B2 Installation of inputs shops	
		B3 Support to the management of sales of agricultural products	
		B4 Introduction of rice cultivation	
		B5. Introduction of Fish farming	
		B6. Introduction of fruit growing	
		B7. Introduction of improved seed varieties for rainfed cultivation	
		B8. Support to the processing and conservation of the agricultural products	
		B9.Support of Micro finance of tontine type	
		B10. Training on animal health and feeding	
		B11. Training on the improvement of knowledge in health and hygiene (diseases related to water)	
		B12. Introduction of improved cooking stoves	

4.2 Period of execution of the actions

The actions will be carried out for three years on each site (see figure 4(1)). The first year will be centered on the reinforcement of working facilities of the basic extension agents and on the reinforcement of their capacities, then on the implementation of actions for the reinforcement of capacities of reservoirs users as regards self development. From the second year of implementation, some actions for the improvement of incomes and living conditions of farmers will be carried out.

	1st year	2nd year	3rd year
Reinforcement of reservoir users capacities as regards self development (Reinforcement of the basic extension agent's capacities)			
Reinforcement of reservoirs user's capacities as regards self development (Reinforcement of farmer's capacities as regards planning, execution; monitoring and evaluation of actions of reservoirs valorization)			
Improvement of reservoir user's incomes and living conditions			

Figure 4 (1) Calendar per site (Investing time)

The period of execution of the action plan is 6 years, from 2010 to 2015 (see figure 4(2)). The regions will be gradually concerned according the order below: The first step will concern Maradi and Tahoua regions because these regions host many functional reservoirs. Moreover some villages of Dosso and Tillabéri regions are assisted by the African Development Bank's project. That is why; these regions will be concerned at the second step. Concerning the choice of referent sites, they will be selected after discussions with the DRDA since each region has its own socioeconomic situation. The criteria for the choice of these referent sites (arable surface area, existence of farmer's organization, existence of extension agents for instance) will be defined during these discussions.

2010	2011	2012	2013	2014	2015
Tahoua, Maradi					
	Dosso				
			Tillabéri, Niamey		

Figure 4 (2) Study calendar and the action plan (Investing time)

4.3 Volume of the actions

The total volume of the actions of the action plan is the grand total of total volumes of the actions for each reservoir.

On the sites of the reservoirs, to implement the actions of rural development carried out by the populations and centered on the valorisation of the reservoirs, the reinforcement of reservoir user's capacities and the improvement of incomes and living conditions of reservoirs users will be carried out, by targeting the various actors who are the official services, the users of the reservoirs, and the populations.

4.4 Project of system of execution of the action plan

(1) System of execution

As the Action Plan's (AP) executive body, the project office for the development of Sahelian oases (hereinafter as the "Project Office") will be set up in Maradi in 2010. The following experts will be recruited to the project office:

- ① Rural Development (and Project Office director)
- ② Organization
- ③ Irrigation
- ④ Agronomy

The office's main functions are as follows;

- ① Explaining to relevant organizations and persons the AP's guiding principles and implementation program, and building a basis for consultation and communication with the concerned parties.
- ② Implementing the study, selection and set-up of activities, as well as the technical support, follow-up and evaluation of each of the AP's activities while taking into consideration the natural conditions of each site and the priorities of cooperatives.
- ③ Organizing the management of each of the aforementioned actions (specifications, drawing up and signing of contracts, equipment and raw-material procurement, report evaluation, etc.) and budgetary management.

The AP's implementation will receive technical support from the relevant ministries in each region and department acting as intermediary level of each region's rural development directorate.

Furthermore, a steering committee at the central government level and a regional-level committee will be set up when the AP is implemented. The objectives of these two committees, their participants, and the frequency of meetings will be as follows:

(a) The steering committee:

Goals: Explaining the AP's progress to the relevant parties in Niger's central government; debating the relevance of the AP's orientation in accordance with the government's policies.

Participants: Chaired by the Secretary-general of the Ministry for the Agricultural Development, the committee comprises each of the relevant ministries and representatives of other organizations.

Frequency: Once a year.

(b) The Consultative Committee:

Goals: Exchanging information between relevant active projects in the impacted zones and updating synergies between projects.

Participants: Representatives of relevant administrative and technical bodies, financial and technical partners, NGO's present in the areas concerned

Frequency: Once a year

Figure 4(3) presents the project of system of execution of the action plan.

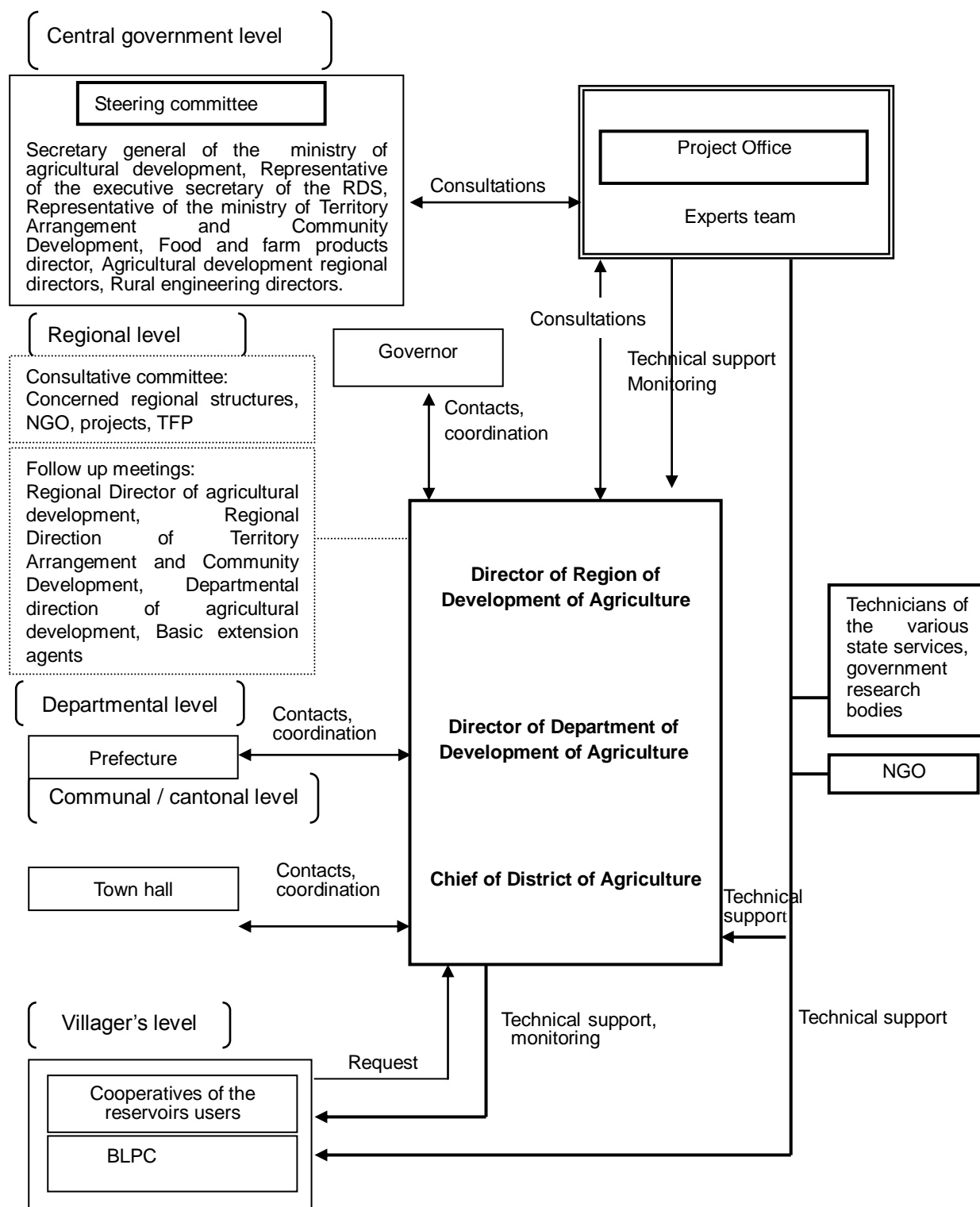


Figure 4 (3) Project of system of execution of the action plan

(2) Implementation Order

The AP will start in 2010 with work in the regions of Tahoua and Maradi, and will expand to work in the Dosso region in late 2011. In 2013 the office will move to Niamey and the AP will be implemented in the Niamey, Tillabery and Dosso regions. The AP's duration will be 3 years in each region. An agreement on the AP's implementation and its support by the relevant structures will be obtained at the beginning of the first year. The relevant structures are the following:

- ① Project Office Director
- ② Agricultural Development Regional Director, Agricultural Development Departmental Director
- ③ Territory Arrangement and Community Development Regional Director
- ④ Governor (Regional), Prefect (Departmental), Mayor (township)

Based on the agreement on the AP's implementation between the concerned parties, the following activities will be put into place to reinforce the capabilities necessary for the durable usage of the works.

- ① Appointment by the Agricultural Development Regional Director of a CDA in charge of each work site
- ② Supply of equipment (motorbike, fuel) for the CDA to monitor the work sites
- ③ Implementation of the improvement of facilitating ability training for the CDA
- ④ Consciousness raising for beneficiaries of reservoirs by the regional service for cooperative action and promotion of rural organizations, and by the CDA
- ⑤ Support for the establishment of a cooperative (election of an executive body, defining of rules)
- ⑥ Administrative training for the executive office members
- ⑦ Training for executive members of cooperative to elaborate, execute and monitor the plan for valorization the reservoir
- ⑧ Training the responsible members of cooperative in maintenance
- ⑨ Training the responsible members of cooperative in struggling sand accumulation
- ⑩ Support for the creation of a basic land property commission for natural-resources management

The second and third year after the AP's start in each region will emphasize revenue-generating and life-enhancing activities for users. In order to define the activities, the work-enhancing priorities chosen by the cooperatives the first year and the natural conditions of the works in question will be taken into consideration. Each activity selected will reflect the cooperative's conditions (population's contribution, payment capacity, training participants' tasks, etc). Cooperative requests will be made after consulting with the relevant persons. Figure 4 (4) shows the evolution of each activity for increase the income and improve the living condition of farmers from the time of its selection to its implementation and management.

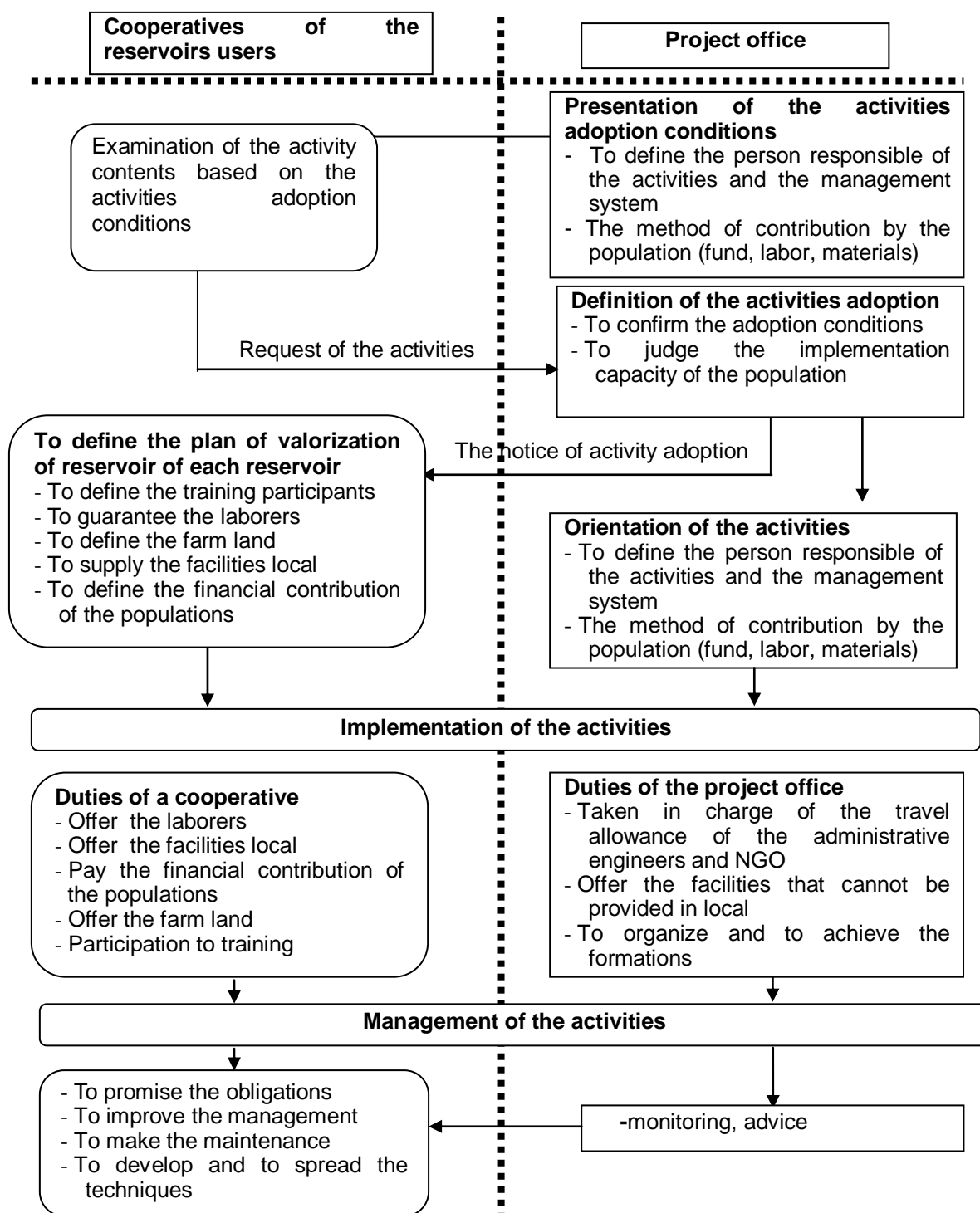


Figure 4 (4) Evolution of each activity for increase the income and improve the living condition of farmers.

4.5 Cost of the actions

4.5.1 Structuring of the global cost of the actions

The following table presents the total cost of the actions.

Table 4(2) Detail of the total cost of the actions

Table 4(2) Detail of the total cost of the actions			Cost (F CFA)
A. Reinforcement of capacities of reservoirs users on development	A.1.Reinforcement of capacities of basic extension agents	A1.1 Equipping of basic extension agents	150,012,000
		A.1.2 Reinforcement of capacities of basic extension agents in organizing of reservoir users	29,610,000
		A1.3 Installation of a system of distribution of information	212,433,000
	A2.Reinforcement of farmer's capacities in planning, execution, monitoring and evaluation of actions for the valorisation of the reservoir	A2.1 Installation of cooperatives of the reservoirs users	45,738,000
		A2.2 Training on the establishment, execution, follow-up and evaluation of reservoirs valorisation plans (RVP)	18,684,000
		A2.3 Training on the maintenance of reservoirs	50,508,000
		A2.4 Installation of BLPC for the management of natural resources	106,020,000
		A2.5 Training on struggling against sand accumulation	80,334,000
B. Improvement of incomes and living conditions of reservoirs users	B1. Intensification and diversification of garden crops	B1.1 Training on gardening techniques	35,105,000
		B1.2 Reinforcement of irrigation system	251,632,000
	B2 Installation of inputs shops		214,920,000
	B3 Support to the management of sales of agricultural products		14,787,000
	B4 Introduction of rice cultivation		325,565,000
	B5. Introduction of Fish farming		91,800,000
	B6. Introduction of fruit growing		226,808,000
	B7. Introduction of improved seed varieties for rainfed cultivation		22,689,000
	B8. Support to processing and conservation of agricultural products		59,937,000
	B9.Support of Micro finance of tontine type		39,060,000
	B10. Training on animal health and feeding		15,930,000
	B11. Training on the improvement of knowledge in health and hygiene (diseases related to water)		16,830,000
	B12. Introduction of improved cooking stoves		24,588,000
Total fees of the offices of the project (vehicles, personnel, rents)			459,011,000
Environmental assessment			105,876,000
Participation in the agro-sylvo-pastoral fairs (foires agro-sylvo-pastorales)			5,637,000
Participation to meetings of the regional consultative committee (reunions des cadres de concertation)			6,202,000
Missions of supervision of the Directorate of the Studies and Planning off the Ministry for the Agricultural Development			14,062,000
Steering committee			4,422,000
Establishment and translation of guides and supports			18,434,000
Total of the direct cost of the actions			2,646,634,000
Management fees			264,663,000
Expenses for the technical support			264,663,000
Provision (material)			264,663,000
Provision (price)			264,663,000
Grand total			3,705,286,000
Total cost in US dollars (1 US dollar = 449.903 francs CFA) (Sep. 2009)			8,235,000

4.6 Requests and proposals to the government of Niger

Certain requests are addressed to the Niger part related to points which are to be realized by the government of Niger, before starting of the action plan. It exposes then proposals which relate to the points to respect during the construction of later reservoirs.

4.6.1 Requests during the execution of the action plan

During the execution of the action plan, it will be necessary to quickly solve the problems of assignment of the extension agents and the problems of building work of the reservoirs still currently suspended and budget request for the implementation of the Action Plan.

4.6.2 Proposals for next constructions of water reservoirs

These are proposals for measures given to government of Niger for the future construction of new water reservoirs:

- ① During the construction of new water reservoirs, it is advised to carefully choose the site of establishment of the reservoirs particularly by avoiding the old ergs with not directed dunes.
- ② It is suggested that the state agents in charge of control are trained in the design of water reservoirs and that the contractors are supervised in management of works, so that the new reservoirs are conceived and built in a suitable way.
- ③ It is advised that some studies on environmental evaluation in conformity with the texts in application are carried out.
- ④ Before making the final decision as for the place of the site for the construction of the reservoir, it is advised to clearly determine the type of land property of the arable lands envisaged in the plan.
- ⑤ It is suggested that it must be integrated in each reservoir, during its construction, a system of water intake conceived considering the type of reservoir and the natural conditions of the site.
- ⑥ It is suggested that, during the construction of reservoirs, the recipients are well defined, that they are organized, and that they are trained in the maintenance of the equipment during construction.
- ⑦ It would be desirable to envisage the inscription each year on the national budget of funds on the section for treasure intended to face the problems of responsibility of dealing with the cost of the following activities:
 - Maintenance and repairs of the vehicles of the State used by the Regional Directions of the Agricultural Development within the framework of the supervision and the monitoring of the basic extension agents (CDA)
 - Travelling expenses of the government officials intervening in the implementation of the action plan (national, regional, departmental senior managers and basic extension agents)

V Pilot projects

5.1 Objective

The objective of the pilot projects (in summary PP hereafter) is well to seize the relevance of the project of Action plan and the problems encountered by testing on real scale its principal activities to contribute thus to the establishment of an Action plan of a greater feasibility.

For that, in principal all the activities of the Action plan will be experimented. The differences between the pilot projects and the Action plan are indicated in the table below.

Table 5(1) Bond between the Action Plan and the pilot projects

Headings		Action Plan	Pilot Projects
Target regions		5 Regions	1 Regions
Number of target reservoirs		36 sites	4 sites
Number of target villages		159 villages	20 villages
Execution time		6 years (2010-2015)	3 years (oct.2006-June 2009)
Components of Activities		Various activities whose targets are the government agents, the populations and the reservoirs	Idem
Follow-up	Basic study	To carry out	To carry out
	Study PRA	-	To carry out
	Meeting	1 time every 2 months	1 time per month
Various guides		Use of handbooks prepared within the framework of the Pilot Projects. Possibly improved	Making of new guides

5.2 Method of follow-up

5.2.1 Method of evaluation

The evaluation of the pilot projects is made through two axes which are those of the evaluation of the processes and the evaluation of the assets.

(1) Evaluation of the processes

It is a question of evaluating the relevance of the contents, the quantity and the period of the investments for each project.

(2) Evaluation of the assets

The result of each project evaluates whether the objective which carried out initial establishment was reached. Moreover, the effect (positive and negative) of the project which was not expected at the beginning is analyzed.

The results of this evaluation are taken into account for the continuation of the projects, through the modifications of the adopted techniques and the examination of additional projects, and in same time their taking into account in the development of the final action plan.

5.2.2 Method of follow-up

(1) The process of follow-up

Here the process of follow-up of the data allowing the evaluation described above.

Identification of the basic data → Development of a program of pilot projects →

Execution of the projects → Follow-up of the process → Follow-up of the assets →

Analysis and evaluation → Correction of the projects →

Execution of the rectified projects → Follow-up of the process → Follow-up of the assets →

Analysis and evaluation → Taking into account in the Action plan

(2) Mode of acquisition of the data within the framework of the follow-up

One can classify the pilot projects into three great groups: projects targeting the state services, the projects targeting the villages, and the projects targeting the sites of the reservoirs. The data for these projects are collected in the following way:

① Notes taken by the model peasants

② Studies, notes taken by the field extension agents

- ③Data acquisition through the studies undertaken directly by the homologous structures or the study mission
- ④Reports of the NGO or consulting service provider
- ⑤Investigations of all kinds carried out by the study mission during the execution and the completion of the pilot projects.

5.3 Contents of the Pilot Projects

The contents of the actions by pilot project are indicated in Table 5(2) hereafter.

Table 5(2) Composition of the pilot projects

Type of action	Target	Action	Project	
Minimum package	Level of the official services	Actions of reinforcement of the support system for the populations by the official services	Project of reinforcement of the means of work for the basic extension agents	
			Project of reinforcement of the capacities of the basic extension agents	
			Project of installation of a system of capitalization and share information	
	Level of the sites of the reservoirs	Actions of reinforcement of the capacities of the reservoir users in management of the actions	Project of support to the installation of the reservoir users organizations	
			Project of support for the reinforcement of the capacities of the executive members of the cooperatives of reservoir users	
			Project of reinforcement of the capacities in maintenance of the reservoirs	
			Project of installation of a system of information flow and share of the techniques between recipients	
	Level of the villages	Actions of reinforcement of the capacities of the populations in management of the actions	Project of support for the organization of the populations	
			Project of support for the reinforcement of the capacities of the executive members of the organizations	
small scale Integrated projects	Level of the sites of the reservoirs	Actions of improvement of the incomes	Project of improvement of the agricultural techniques	1. Basic notions on the crops, plant health prevention
				2. Introduction of the ecofarms
				3. Introduction of improved varieties
			Project of improvement of the agricultural management techniques.	
			Project of experimentation of the introduction of rice NERICA	
			Project of introduction of fish farming	
			Project of reinforcement of the capacities in maintenance of the irrigation equipment	
			Project of conservation of the arable lands	
			Project of prevention of the damage caused by the animals	
			Project of support to income generating activities	
		Actions of improvement of the life condition	Project of reinforcement of capacities in reading and writing	
			Project of reinforcement of knowledge in health and hygiene	
			Project of introduction of the improved cooking stoves	
	Level of the villages	Actions of improvements of the incomes	Project of introduction of a system of saving and turning credit (tontine)	

5.4 Process of establishment of the AP

In order to check the basic concept and the orientation of the provisional action plan presented in September 2006, some pilot's projects were carried out since November 2006 with the objective of establishing the action plan for the implementation of a participative rural development project with the support of government and NGOs.

The rural development means, this development is not only for agro-sylvo-pastoral; it includes the development of all sectors including the improvement of life conditions. Consequently, the action plan concerns two areas which are the vaporization of reservoirs and the rural development of villages benefiting of the reservoirs. The method of rural development in the AP established in this study could also be adapted to villages not having these reservoirs; these villages constitute the majority of villages in Niger. Moreover, during the implementation of the action plan, a system will be installed for rural development in which the populations play the main role, in which will be implemented not only the infrastructures arranged within the frame work of the SPPR, but also all natural , social and economic resources available in the villages.

Concerning the draft of the action plan, for the purpose of the valorisation of reservoir and rural development, the cooperatives and VDCs will be installed. Thus it is very difficult to establish the relation between the VDC and the Cooperative because having different objectives and interests as proposed by the draft action plan. Moreover, much of persons concerned with this study suggested thinking on the contents of the action plan specific to the valorization of the reservoirs. Consequently, it was proposed a system of collaboration between the cooperative and the VDC in which the role of the VDC will be limited to the actions of fight against soil degradation in September 2008.

But, following the reflexions on the contents of the provisional action plan proposed in September 2008, it was judged that time and the financings will be more effective if the contents of the action plan are focused on actions of agricultural development centered on the valorization of the water reservoirs.

The result of the discussions between SSOD and the regional government services in Tahoua based on the monitoring of the PP for the reflex ion on the AP activities in February 2009. The evaluation was carried out mainly with the executive members of the cooperatives. After the evaluation by the cooperatives, the final projects to retain in the AP are presented in table 5(3) below:

Table 5(3) Final projects to retain in the AP

Type of action	Target	Action	Project		Projects proposed by SSOD and regional government services	Responses of the cooperatives to the proposed projects	Final projects to retain in the AP
Minimum package	Level of the official services	Actions of reinforcement of the support system for the populations by the official services	Project of reinforcement of the means of work for basic extension agents		X	X	X
			Project of reinforcement of the capacities of the basic extension agents		X	X	X
			Project of installation of a system of capitalization and share information		X	X	X
	Level of the sites of the reservoirs	Actions of reinforcement of the capacities of the reservoir users in management of the actions	Project of support to the installation of the reservoir users organization		X	X	X
			Project of support for the reinforcement of the capacities of the executive members of the cooperatives of reservoir users		X	X	X
			Project of reinforcement of the capacities in maintenance of the reservoirs		X	X	X
			Project of installation of a system of information flow and share of the techniques between recipients				
	Level of the villages	of reinforcement of the capacities of the populations in management of the actions	Project of support for the organization of the populations				
Project of support for the reinforcement of the capacities of the executive members of the organizations							
small scale Integrated projects	Level of the sites of the reservoirs	Actions of improvement of the incomes	Project of improvement of the agricultural techniques	1. Basic notions on the crops, plant health prevention	X	X	X
				2. Introduction of the ecofarms	O	O	O
				3. Introduction of improved varieties		X	X
			Project of improvement of the agricultural management techniques		X	X	X
			Project of experimentation of the introduction of rice NERICA		X	X	X
			Project of introduction of fish farming		X	X	X
			Project of reinforcement of the capacities in maintenance of irrigation equipments		X	X	O
			Project of conservation of the arable lands		X	X	X
			Project of prevention of the damage caused by the animals		X	X	X
			Project of support to income generating activities		X	X	X
		Actions of improvements of the life condition	Project of reinforcement of capacities in reading and writing		O		
			Project of reinforcement of knowledge in health and hygiene		X	X	X
			Project of introduction of the improved cooking stoves		X	X	X
			Project of introduction of a system of saving and turning credit (tontine)			X	X
		Level of the official services	Actions of improvement of the incomes	Project of reinforcement of the means of work for basic extension agents			X

Note; The project marked in "X" will be carried out in the AP and those marked in "O" will be carried out partly in the AP

Chapter 1: Introduction

1.1 Context of the study

The government of the Republic of Niger (indicated "Niger here after"), which attaches a great importance to the promotion of the rural development as regards to poverty reduction and fight against desertification, initiated in December 2000 the "Special Program of the President of the Republic", financed with the funds generated by the reduction of the debt within the framework of the initiative "Heavily Indebted Poor Countries" (HIPC) of the World Bank. The objectives of this program are centered on the construction of the socio-economic infrastructures, namely "1,000 classrooms, 1,000 health centers and 100 small scale dams in the rural zones", for the rural development and the improvement of the basic living conditions.

The access to water and its rational use is crucial problems in the field of the increase in the incomes, of the improvement of the living conditions and the conservation of the natural environment in the concerned zone which is made up in majority of arid and semi-arid zones. To solve these problems, the "Special Program of the President of the Republic" proposed the mobilization of the water resources in rural area, and carried out between 2001 and 2004 the construction of approximately 100 water reservoirs and the 100 wells. However, those reservoirs are not yet sufficiently developed.

Within sight of this situation, the government of Niger requested in 2003 from that of Japan a project of technical cooperation having for objectives the increase in the food production and the fight against desertification through the promotion of a planned agricultural production, based on the use of ground surface water and execution of trees plantations. In answer, the JICA sent a team of basic study for a) to check the context and the contents of this project, and to discuss with the government of Niger about the method of execution of the project initially required as a project of technical cooperation and b) to collect information necessary to the preliminary study evaluation. As the government of Niger, following this first mission has in October 2004, addressed to the Japan government a request for a study of development having for objective the poverty reduction and the fight against desertification through the rural development around the water reservoirs, the Japanese government decided the execution of the Study on Sahel Oasis development as from November 2005.

1.2 Objectives of the study

The scope of works such agreed on 03 February 2005:

The overall goal of the Study is to secure the human security and to contribute the prevention of the desertification through the community-based rural development such as income generation and improvement of livelihood.

The objectives of the Study are:

1. To formulate Action Plan to implement the community-based rural development supported by administration and/or nongovernmental organizations in the Study area.
2. To implement pilot projects in the course of the Study for the capacity development of Nigerien counterpart personnel as well as of the communities concerned.

But, after discussions between JICA, MAD and the Study team, the objectives have been modified as follows:

Overall objective: To contribute in poverty reduction through the implementation of rural development actions carried out by the populations, centred on the valorization of water reservoirs (dams and weirs).

The specific objectives are:

- (1) To clearly establish an action plan to implement and to provide some rural development actions carried by populations through farmer to farmer transmission, with the support of government services and NGOs
- (2) Through the execution of pilot projects, to proceed to the reinforcement of government services capacities (central and local level) and those of populations (populations organizations)

1.3 Study area

The zones of the study for the two phases are defined as follows:

Phase 1: The zone of the study was consisted of the sites of water reservoirs built in Tillaberi, Dosso, Tahoua, Maradi and Niamey regions, as of the villages which profit from it.

Phase 2: The zone of the study is consisted of the sites of pilot's water reservoirs and of the villages which profit from it, selected among the targeted reservoirs and the villages during the first phase.

1.4 Calendar of execution of the activities of the study

Table 1.4 (1) "Calendar of execution of the activities of the study" summarizes all the undertaken activities.

Table 1.4 (1) Study working calendar

Phase I	First year (2005-2006)	Preparations in Japan	[1] Collection, classification and analysis of existing documents [2] Examination of the study methods and the implementation program of the whole study [3] Drafting of the Inception report, examination and revision
		First study in Niger	[4] Explanation and discussion of the Inception report [5] Exchanges of views with the TFP/NGO and other projects [6] Checking of raised plans and programs, participation in the RDS's working group [7] Discussion with the counterpart of the technical programme transfer by field and establishment of this program [8] Establishment of a booklet [9] Collection and analysis of existing documents and information (identification of the system of execution of the actions of the village development projects) [10] Review of activities of the TFP/NGO and other projects [11] Study of the current state of the water reservoirs, complementary study (continued the 2nd year) [12] Analysis of the potentialities and classification of the reservoirs [13] Execution of the socio-rural study and analysis potentialities of village development [14] Drafting and presentation of the progress report (1)
	Second year (2006-2007) -1	Second study in Niger	[12-1] Analysis of the obstacles to the valorization of the reservoirs [13-1] Study of the real state of the income generating activities [15] Analysis of the obstacles to the implementation of the activities of village development by the populations [16] Development of the small scale integrated projects [17] Establishment of the draft action plan [18] Selection of the target villages of the pilots projects [19] Establishment of the implementation program of the pilot projects
		First work in Japan	[20] Drafting, examination and revision of the interim report (1)
	Second year (2006-2007) -2	Third study in Niger	[21] Explanation and discussion of the interim report (1) [22] Execution of a baseline study in the villages targeted for the pilots projects [23] Execution and follow up of pilots projects [23-1] Study of the potentialities for the use of grand waters [11-1] Study of the current state of the systems of small scale irrigation [24] Execution of the 1st interim evaluation [25] Drafting and presentation of the progress report (2)
Phase II	Third year (2007-2008)	Fourth study in Niger	[26] Execution and follow up of pilots projects [27] Execution of the 2nd interim evaluation [28] Drafting and presentation of the progress report (3) [29] Execution of the 3rd intermediate evaluation [30] Interim revision of the draft action plan
		Second work in Japan	[31] Drafting of the interim report (2), examination and revision
	Fourth year (2008-2009)	Fifth study in Niger	[32] Explanation and discussion of the interim report (2) [33] Execution and follow up of pilots projects [34] Execution of the 4th interim evaluation [35] Drafting and presentation of the progress report (4) [36] Execution of the 5th interim evaluation [37] Drafting and presentation of the progress report (5)
		Sixth study in Niger	[38] Execution and follow up of pilots projects [38-1] Environmental balance [39] Execution of the final evaluation [40] Drafting and presentation of the progress report (6)
	Fifth year (2009-2010)	Third work in Japan	[41] Drafting of the draft final report , examination and revision
		Seventh study in Niger	[42] Explanation and discussion of the draft final report [42-1] Seminar
		Fourth work in Japan	[43] Drafting and presentation of the final report

1.5 Study support system

1.5.1 Execution structures

The main structures of execution are the Ministry of Agricultural Development in collaboration with the Ministry of Environment and Fight Against Desertification. The execution organ is the Ministry of Agricultural Development

1.5.2 Steering Committee

A Steering Committee which consisted of representatives of the Ministry of Agricultural development other concerned Ministries and the Study Team was organized to promote a better study works. The steering committee meetings were held at the time of presentation of various reports (inception report, interim report (1) (2), and draft final report).

1.5.3 Assistance by academic and experienced experts in Japan

Support Committee of JICA in Japan that consists of four academic experts has been held to examine the four main reports aforesaid and a report of the result of the field survey.

1.6 Structure of the final report

This report consists of the main report (two volumes) and an attachment respectively containing the following elements.

(1) Main report

- Introduction: Describes the background and the purpose of the study and support system.
- Current condition: Describes the present states of nature, society, economy, rural development and reservoirs of Niger and the study area.
- Action plan: Describes the basic concept and the implementation plan of the action plan.
- Pilot project (2nd volume): Results of implementation and evaluation of the pilot project area described.

(2) Attachment

- Appendices: Minutes of steering committee, data for formulation of the action plan, and the texts created by the pilot project, are attached

Chapter 2: Presentation of the study area

2.1 Natural area

2.1.1 Localization

Niger is a landlocked country of 1,267,000 km² (that is 3.4 times the surface area of Japan), located in the region known as “Sahel” witch border the Sahara desert in its southern part. The desert covers 2/3 of the territory. The study area, which comprises Niamey, Tillabery, Dosso, Tahoua, and Maradi regions, covers over 286,517 km² and is equal approximately to 23% of the national territory. These regions border Mali, Burkina Faso and Nigeria.

Table 2.1 (1) Surface of the study area (km²)

	Niger	Study area(5 regions) (km2)					
		Dosso	Maradi	Niamey	Tahoua	Tillabery	Total
Surface	1, 267,000	33,844	41,796	255	113,371	97,251	286,517

Source: National statistics Institute - RGP/H 2001

2.1.2 Topography, hydrology and soil

The study area presents the following topographic particularities. Niger River cross Niamey, Tillabery and Dosso regions, and its valley spreads out on both two banks and many tributaries join it. For the raison many seasonal and permanent swamps exist. The topography of Tahoua region consists of hills and that of Maradi region is flat. Rivers of both regions are koris (temporary water course) and flow only during rainy season.

The 70% of the study area are occupied of tropical ferruginous soils (laterite soils). Detritus and hydrogenic soils also are distributed. Laterite soils are sandy, easy to cultivate but nutrient and water holding capacity are poor, for the reason agricultural productive force is not high. Millet is almost entirely cultivated on these soils.

Hydrogenic soils found along the Niger River and its tributaries have a relatively high content of clay and organic elements, with a high water holding capacity. They are high productivity soils suitable for paddy cultivation and for irrigated agriculture. However they may become temporary flooded by the rise of ground water or river water. The detritus soil is low process of soil formation and low fertility level, therefore its agricultural productive capacity is very poor.

In the study area, soils are increasingly being degraded due to the effect of intensified wind and water erosion and also due to low fertility and water retaining capacity of soils.

Table 2.1(2) presents the topographic and hydrographic characteristics of the five regions that comprise the study area.

Table 2.1 (2) Natural situation of regions of the study area

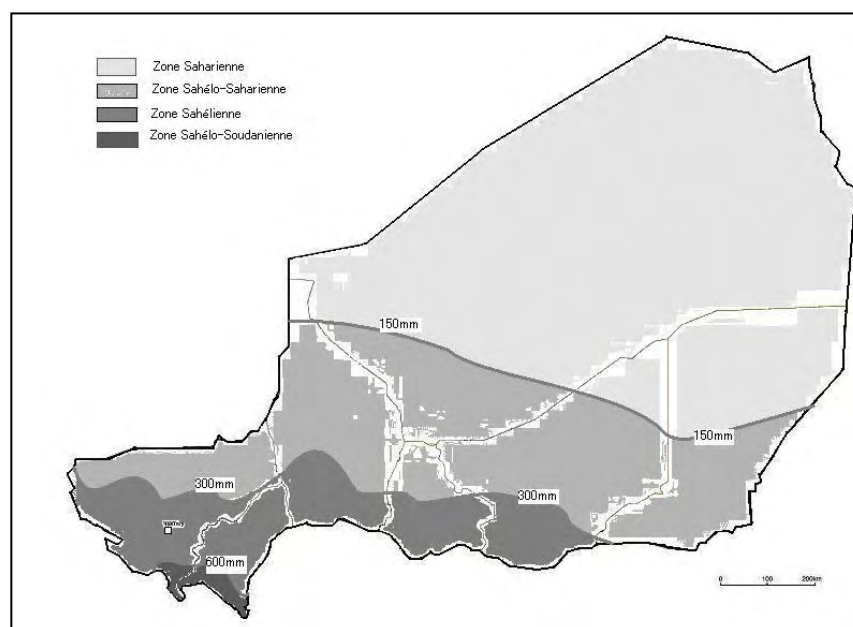
	Topography	Hydrography
Dosso	Valley of Niger River Fossil Valley (Maouri, Foga, Bosso) (north east) Plateaus of Zigui, Fakara (north west) Mountains of rocks (in the east) 3 Fossil valley (Dallols Bosso, Foga and Maouri)	Niger River (over 180 km) 40 tributaries Shallow water table level (3 to 6 meters) and deep water table level (above 20 meters) 250 permanent and seasonal swamps
Maradi	Plat on the whole Plateau (au north) Valleys (Maradi, Kaba et Tarka) also their tributaries	Water flows during rainy season within 3 valleys (Maradi, Kaba and Tarka)
Niamey	Plateaus Valley Kori Niger River valley	Niger River (cross 15km, maximum flow :2,340 m ³ /s) 4 permanent ponds, 14 seasonal ponds Shallow water table level (less than 10 m) Valleys and tributaries
Tahoua	Plateau of Ader-Doutchi (altitude above 400m) Valleys (Azawak(in the north) , Maggia, Keita and Badaguichiri(in the south))	Water flows in the valley of Maggia during rainy season ponds in the valleys
Tillabery	Fossil valley (Dallol Bosso) Niger River Valley Valley of Liptako (in the west) Valley of Zarmaganda (in the east) Dunes (in the north and centre)	Niger River (cross 450 km) tributaries (seasonal (Gorouol , Sirba , Dargol , Goroubi , Diamangou , Tapoa and Mékrou) More than 50 permanent and seasonal ponds

Sources : Temporary Reports of studies on further development of the diagnostic and analysis of agro-sylvo-pastoral productions systems in the frame work of the RDS implementation October 2004, History and Geography of Niger (INDRAP) and the journal "Construire l'Afrique"/of set N° 004/ June – July - august 2004

2.1.3 Climate and vegetation

Niger is divided into 4 climatic zones ranging from Saharan zone to Soudano-sahelan zone. Here are the characteristics of these various zones in terms of rainfall and vegetation (see fig 2.1 (1))

- ① Saharan zone: Rainfall reaches at most 150 mm. The vegetation of this zone can be found in some areas, particularly in valleys and oasis.
- ② Sahelo-saharan zone: Rainfall ranges from 150 to 350 mm. It is covered with grass steppe, and grazing is common practice.
- ③ Sahelan zone: Rainfall varies between 350 to 600 mm. This zone is favorable to agriculture and high density area.
- ④ Soudano-Sahelan zone: Rainfall varies between 600 to 800 mm. Its vegetation is savanna type and it is favorable to agriculture, it is a high density area too and it comprises Niger part of "w" park.



Source : Sectorial Consultation on Environment and Fight Against Desertification / Ministry of Water Resources, Environment and Fight Against Desertification (2005)

Figure 2.1 (1) Climatic zones of Niger

The five regions concerned by the study are located in the south western part of the country where the effect of drought is relatively low. Table 2.1 (3) gives the form of climate and vegetation within these 5 regions.

Tahoua region extends from north to south and presents a highly variable climate going from the Saharan zone to the sahelan zone, covering by then the 90% of Nigerien climate. In terms of vegetation Dosso and Tillabery regions located in the south west of Niger, are rainy regions, for the reason vegetation is rich in those regions. Tillabery, Tahoua and Maradi have these vegetations type: grass steppe, shrubs steppe and shrubs savannah.

Table 2.1 (3) Situation of climate and vegetation in the regions of the study area

	Rainfall	Zone of climate				Vegetation		
		Saharan	Sahélo-saharan	Sahelian	Sahelo-soudanian	Grass steppe	Shrubs steppe	Shrubs Savannah
Dosso	From 600 to 1000 mm			•	•		In the north	in the south
Maradi	From 200 to 700 mm		•	•		In the north	At the center	in the south
Niamey	From 400 to 600 mm			•			All the area	
Tahoua	From 150 to 600 mm	•	•	•		In the north	At the center	in the south
Tillabery	From 200 to more than 800 mm		•	•	•	In the north	At the enter	in the south

Source: Temporary Reports of studies on further development of the diagnostic and analysis of agro-sylvo-pastoral productions systems in the frame work of the RDS implementation October 2004, History and Geography of Niger (INDRAP) and the journal "Construire l'Afrique"/Of set N° 004/ June - July - august 2004

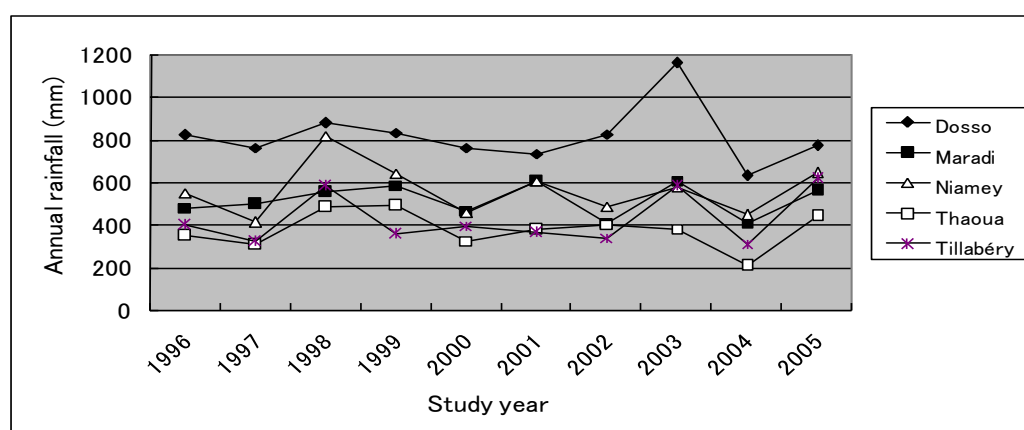
Table 2.1 (4) and figure 2.1 (2) present rainfall variations during the past 10 years in the five regions. It is said that in West Africa in the sahelan zone a large scale drought occurs every 10 years and a small scale drought every 5 years. A small scale drought occurred in 2004 which caused a big damage on the agricultural production.

Look at the variations in rainfall during 10 years of each region, difference maximum and minimum rainfall year an important variation of 527.7 mm for Dosso region and a little variation of 199.2 mm for Tillabery region. Variation in quantity rainfall per annum varies from single to double according to regions. Dosso registered the higher rainfall quantity with 1,160.4 mm and the lower quantity rainfall was registered in Tahoua with 379.1 mm in 2003; witch shows a disparity of 1 to above 3 in the area of study. Disparities also are important the same year from one region to another.

**Table 2.1 (4) Rainfall variations of ten years in the study area (from 1996 to 2005)
(In millimeters)**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Dosso	822.8	761.4	878.9	830.6	761.4	734.1	825.1	1,160.4	632.7	769.7
Maradi	478.2	497.7	550.7	585.3	465.5	600.5	407.4	606.6	408.9	558.5
Niamey	548.3	411.6	816.6	641.8	458.4	606.5	485.5	577.6	448.8	645.8
Tahoua	347.6	304.0	480.2	490.3	322.7	377.3	401.0	379.1	205.5	439.3
Tillabéry	399.5	322.2	582.5	353.3	394.5	360.9	338.3	582.7	310.0	616.2

Source: NATIONAL METEOROLOGICAL STATION



Source: NATIONAL METEOROLOGICAL STATION

Figure 2.1 (2) Diagram of variations rainfall per annum in the study area.

2.2 Socio cultural aspects

2.2.1 Population

A recent census (2001, published the result in February 2005) indicated that Niger population is 11,060,000 inhabitants of which 18% live in urban area, and 82% in rural area. The surface area of the national territory is of 1,267,000 Km², leading to a population density of 8.5 inhabitants per km². This lower density is due to the fact that the major part of the country is desert; there is a little agricultural field. Figure 2.1(1) and Figure 2.2 (1) show that the population is gathered in southern zone of the country where rainfall is equal or above 300 mm, suitable for rain fed agriculture. The five regions of the study area are included in this zone except the northern part of Tahoua region.

The population growth rate is about 3.3% during 13 years that differentiate 2001 census from that of 1998 where the population was 7,250,000 inhabitants, and the population growth rate during this period in the urban community is 4.5% which is relatively most important in the rural zone (see

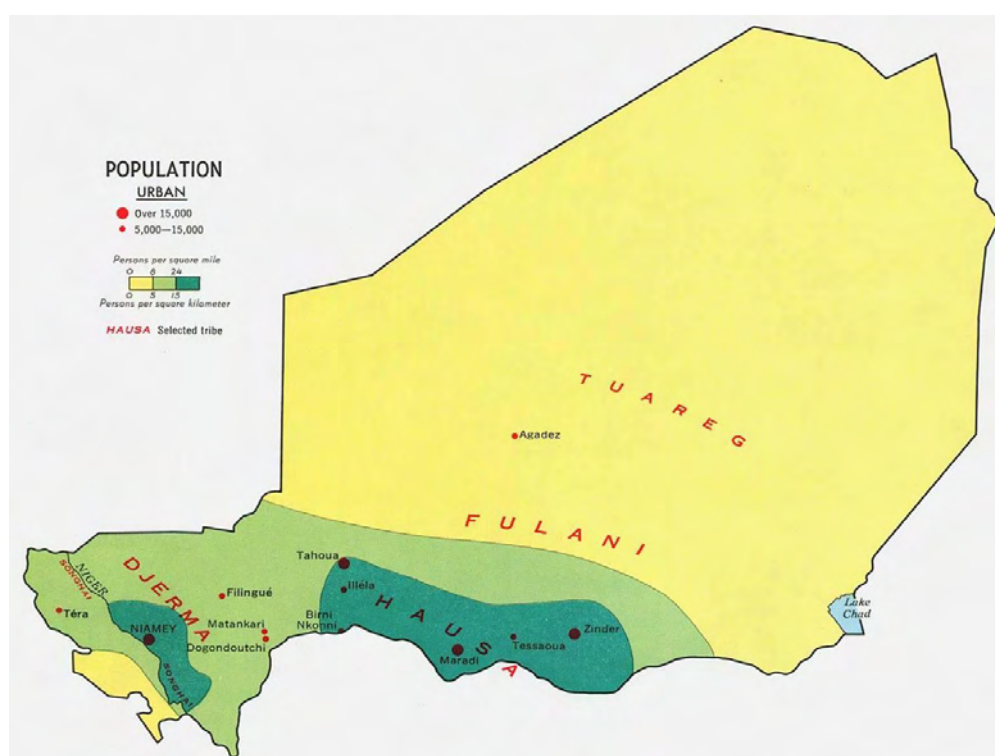
table 2.2 (1)). The main reason for migration of population from all over the country of Niamey region is the quest for job. In Tillabéri region particularly, the progress of desertification makes most problematic the availability of farmland, and the closeness of Niamey region increase the tendency to migration, this brings the population growth rate to only 2.7%, lower compared to that of other regions.

Considering a mean annual population growth rate of 3.3% as the basic rate, the population should be of 14,340,000 inhabitants in 2009. If the evolution goes on at the same rate, according to our projection in the action plan in 2015; the population should reach about 17,430,000 inhabitants. The main reason for this increase is the increase in the birth rate, which is included in the pyramid of ages, where the population strata of 0 to 14 years represent 47.5% of the entire population. This increase in population exerts an important impact on the balance of supply and demand for foodstuff, and constitutes one of the major social problems in Niger.

**Table 2.2 (1) Composition of the population in the regions of the study area
(In 1998 and in 2001)**

	1988 (Inhabitants)	2001 (Inhabitants)	Growth rate (%)	Surface area (km ²)	Population density (hab./km ²)	2004 (Inhabitants)
Country total	7,251,626	11,060,291	3.3	1,267,000	8.7	11,856,732
Dosso	1,018,895	1,505,864	3.1	33,844	44.5	1,625,174
Maradi	1,389,433	2,235,748	3.7	41,796	53.5	2,419,513
Niamey	397,437	707,951	4.5	255	2,776.3	741,610
Tahoua	1,308,593	1,972,729	3.2	113,371	17.4	2,096,546
Tillabéry	1,328,283	1,889,515	2.7	97,251	19.4	2,041,876

Source: National Statistics Institute - 2001/2005 The population of 2004 is estimated by the census result



Source : http://www.lib.utexas.edu/maps/africa/niger_pop.1969.jpg

Figure 2.2 (1) Population density distribution map

2.2.2 Ethnic group and religion

(1) Ethnic group

In Niger the main ethnic groups are the Songhay-Djerma, the Haoussa, the Fulani and the Touareg. These four ethnic groups represent 90.4% of Niger population. Among them, the Songhay and the Haoussa are sedentary, mainly practice agriculture and live in the centre and southern part of the country. The two of them represent 76.4% of Niger population.

The Touareg and the Fulani which are nomads represent 17.8% of the population. These ethnic groups mainly live in the northern part of the country, but because of important damages caused by drastic drought on stock raising and the decrease in rainfall during recent years, there is an increase in the number of settled. Touareg and who begin to practice agriculture.

Among the five regions that comprises the study area, Haoussa people are the main ethnic group found in Maradi and Tahoua Regions, and the Songhay-Djerma people are the main ethnic groups found in Tillabery and Niamey regions. In Dosso, Haoussa and Songhay-Djerma people are almost equal in number. The nomads Fulani and Touareg are largely spread over the northern part of Tillabery region and also in the northern part of Tahoua region. The ethnic composition of population in the regions of the study area is presented in the table 2.2 (2) below:

Table 2.2 (2) Ethnic composition of population in the regions of study area (2001)

Ethnic group Region	Djerma / Songhay	Haoussa	Peuhl	Touareg	Others	Total (%)
Niger	21.0	55.4	8.5	9.3	6.0	100
Maradi	0.4	87.8	8.3	3.1	0.3	100
Dosso	48.1	42.1	8.6	1	0.3	100
Niamey	51.1	34.4	7.5	4.4	2.7	100
Tahoua	0.8	78.2	2.5	17.5	0.9	100
Tillabéry	63.6	10.5	12.6	11.1	2.1	100

Source: National Statistics Institute - RGP/H 2001

(2) Religion

According to governmental statistics documents titled « Le Niger en chiffres: edition 2005 », 99% of Nigeriens are Muslims, the remaining 1% are traditional religious or Christians. Even though, women according to Muslim studies are limited by customs such as the non recognition for the right of making decision process, however they have the right to land possession and property management.

There are different types of groups that are proposing to develop Islamic culture and to spread it; these groups are all represented in the National Islamic Association of Niger implemented by government. Previously, different Muslim religious groups introduced Korans' schools in their respective zones and mainly study the Koran, but actually the groups together manage the functionality of Korans' schools.

2.2.3 Characteristics of rural area

(1) Village organizations

In Niger village is the basic administrative unit. Figure 2.2(2) gives the fundamental structure of a village. The village chief who has the inherited traditional power is at the top, the district chiefs are responsible for what concern the daily life of villagers, and elders, traders, retired workers, imams (word of origin used to indicate persons that preach the Koran) as advisers help the village chief managing the village. The socio-economic groups of the village interested in different scopes (agriculture, livestock rising, apiculture, hunting, fishing, etc.) are organized and chiefs of

these organizations advise the village chief in their area of activity. According to customs it is difficult for women to participate directly in decision making in the village.

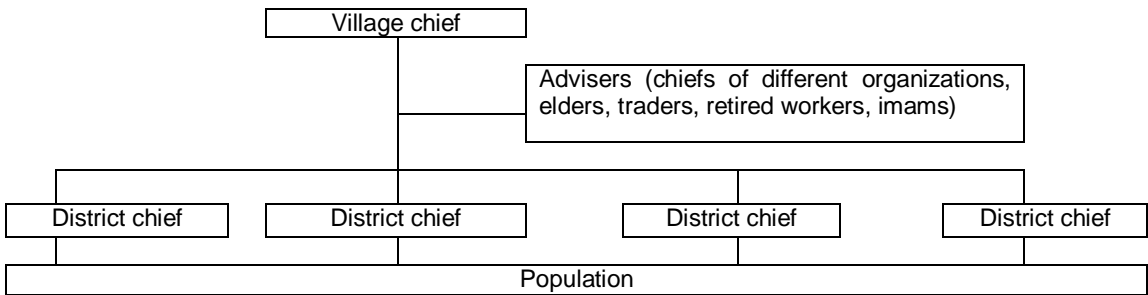
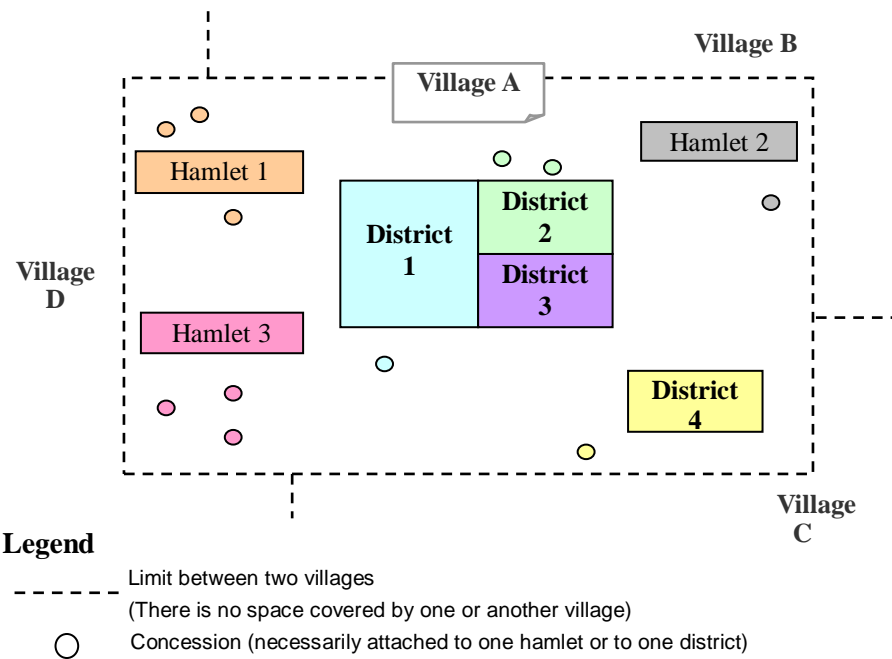


Figure 2.2 (2) Fundamental structure of a village

Figure 2.2(3) gives a diagrammatic representation of a village in Niger. Many of the resident of a village are scattered types. They are divided into districts and hamlet. The population limit between hamlet and district varies according to villages, yet it is around hundred inhabitants (hamlets have less than 100 inhabitants and the districts more than 100 inhabitant). Every concession (a group of huts sharing the same compound) is in general attached to the closer district or hamlet.

There are families (larges families) in a village which are the fundamental units for economic activities, notably agricultural management, and daily life. These families include many households that vary from 2 to more than 10.



NB This is not a scaled plan. The hamlets are generally more or less far from the central districts.
Figure 2.2 (3) Diagrammatic representation of a village in Niger

(2) Housing

The layout of site surrounded by wall made up of banco, rooms, kitchen, toilet, porch, enclosure for animals, stores etc. Houses are made up of banco. Most often a house comprises 1 or more than 2

rooms in which live 2 to more than 10 person. Many houses have toilet which serve as the shower room and the toilet for urine, but excrement frequently take place outside the houses, in the bush for instance.

A few houses have an independent building reserved for kitchen. Cooking stove is most often installed outside close to the house on witch food is prepared. There are few trees which serve as a shade in a site.

Viewing this situation the following problems can be drawn:

- Hygiene problems: (overcrowding of persons and animals, non availability of toilet for major needs, etc.)
- Cooking most often takes place air free without any protection from rains or wind.

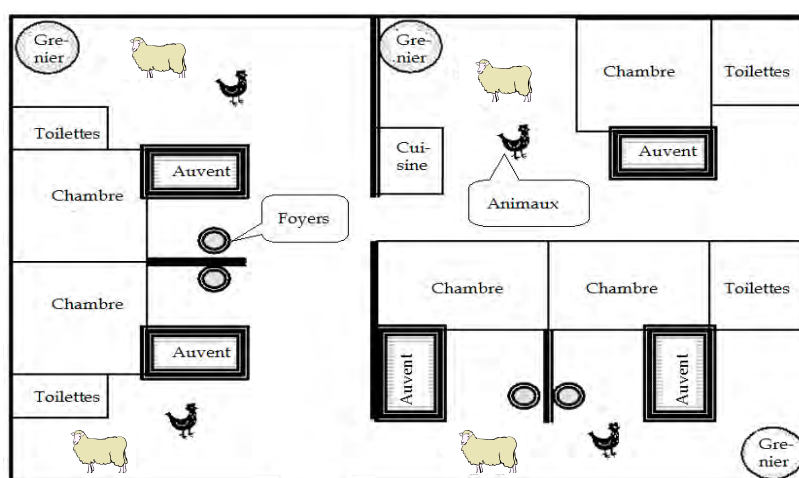


Figure 2.2 (4) Example of a rural house

2.2.4 Health

(1) General health state

Niger is classified at the 174 of 177 countries for the human development index according to the Human Development Report (2007-2008) of the United Nations Development Program; (UNDP). It is a country very late in terms of social development. As shown in table 2.2 (3) below, the death rate for children under 5 years is 176 per thousand. This rate is high even when compared with that of west and center Africa which is of 169 per thousand. Furthermore the life expectancy from birth is only of 57 years. This is due to the weakness of the actual health equipments.

Table 2.2 (3) Main indicators in relation with health

Indicators	Child death rate for children under five years old (2007) (‰)	Infant mortality rate(children of less than one year) (2007) (‰)	Life expectancy (2007) (years)	rate of population having access to an adequate healthiness (2006) (%)
Niger	176	83	57	7

Source: UNICEF World Children White Book 2009

In table 2.2 (4) malaria, pneumonia, encephalitis, diarrhea diseases, measles are in this order the most serious diseases that cause the high number of dead person. Among these diseases, malaria is transmitted by the anopheles mosquito living around water supply, and the degradation of the drinking water quality causes diarrhea. Areas around the reservoirs are suitable for infection from malaria and diarrhea.

Table 2.2 (4) Number of diseases and dead persons from the five serious diseases cause of mortality

	Malaria	Pneumonia	Encephalitis	Diarrhea diseases	Measles
Number of sick persons	804,871	741,217	5,783	280,454	34,327
Number of dead persons	1,421	569	576	412	153

Source : Health Development Plan 2005-2009

(2) Drinking water

According to the “Basic plan for the management of water resources” the installation standard for drinking water is as follows: a modern well is large (about 1.8 m) a well by casing made from reinforced concrete and a drilling well with a diameter of about 150 mm.

- In all villages of less than 250 inhabitants, installation of one modern well 5 km limit from the middle of the village
- In villages from 250 to 1500 inhabitants, installation of one modern well per 250 inhabitants
- In villages of 1500 and above inhabitants, installation of mini-water supply facilities

The coverage rate in terms of modern well is 52% for the entire country, as shown in table 2.2 (5). Within the study area, Tahoua region has the lowest rate of 40.8% which denote difficulties for access to drinking water. In the strategy of poverty reduction, Niger is willing to bring this rate to 70% in 2010 and to 100% in 2015.

Table 2.2 (5) Inventory of equipments for water supply in regions of the study area (2000)

	Number of existent modern wells	Number of modern wells considered as necessary	Coverage rate in terms of modern wells (%)	Number of existent water supply facilities	Number of mini-water supply facilities considered as necessary	Coverage rate in terms of mini -water supply facilities (%)
Niger	18,248	35,456	52.00	306	1,172	26.11
Dosso	2,965	5,992	49.49	46	118	43.80
Maradi	3,387	6,853	49.42	28	159	71.61
Tahoua	2,890	5,272	40.80	82	420	20.48
Tillabéry	3,747	7,372	51.23	66	232	28.45

Source : Poverty Strategy Document 2002

2.2.5 Education

(1) General situation of education

In Niger, the education system is French type and the primary education start at 7 ages. There is a large difference school attendance rate between boy and girl, and in primary as well as in the secondary and also in the higher education; girl school attendance rate is extremely low. Primary School enrolment rate (Net) is of 56% for boy and of 40% for girl as shown in table 2.2(6). This rate is lower because school equipment and number of teachers are insufficient. The Poverty Reduction Strategy established in 2002 aim at increasing the school attendance rate to 65% in 2010 and to 84% in 2015.

Adult's literacy rate is 30%; this is extremely low even when compared with the rate in west and center Africa where it is 60%. Government in its Poverty Reduction Strategy fixed the objective of increasing the literacy rate to a level of 44% in year 2015.

Table 2.2 (6) Main indicators in relation with education (2000-2007)

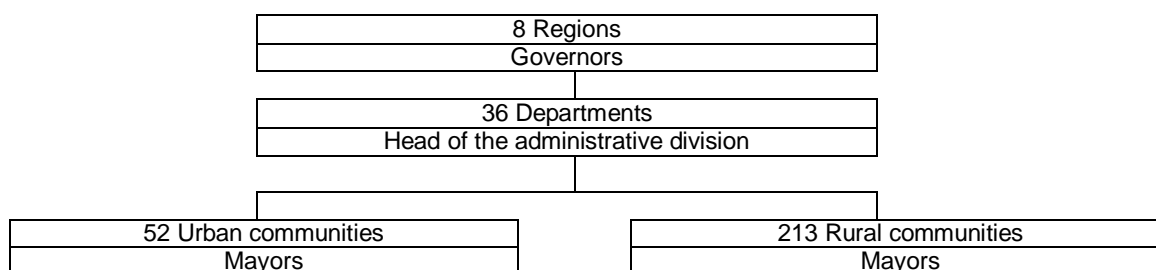
	Adults literacy rate (%)	Primary School enrolment rate (%)		Primary school attendance rate (%) net	Secondary School enrolment rate (%)		Secondary school attendance rate (%)net
		Gross	Net		Gross	Net	
Male	30(Male & Female)	58	56	44	14	12	13
Female		43	40	31	9	7	9

Source: UNICEF Report on the situation of children in the world 2009

2.2.6 Regional administrative organization

Niger has a long decentralization history. Many articles of the law concerning decentralization were established before independence (March 1959), and after independence (November 1960; September 1992, May 1996 and July 1999). Therefore, these articles were limited to the theoretical creation of administrative entities until passing to a democratic system in 1990, there was no transfer of skills neither a direct election of representatives of these administrative divisions.

In June 2002, Government modified the administrative division and created 8 regions, 36 departments, 52 urban communities and 213 rural communities (2002-13; law). The communities are composed of many villages and in many cases coinciding with cantons which are traditional divisions. Population is at minimum 50,000 inhabitants for rural communities and 10,000 inhabitants for the urban communities. The first local elections intervened in July 2004

**Figure 2.2 (5) Diagram of administrative divisions in Niger**

The local council is responsible of the community for making decision; it notably comprises the elected advisers, the mayor and traditional authorities (particularly the chief of the canton). The number of advisers democratically elected by community population varies according to the number of inhabitants in the community from 11 to 25 advisers. They are mandated for 4 years. The mayor is elected by the advisers. The local council holds an ordinary session every 3 months.

The local council of community has a subcommittee for each of the following scopes: 1) finance, 2) Society, culture and sport, 3) rural development and environment, 4) economy, 5) institutions and international relations. To fulfill the community tasks there must be at least one secretary, one treasurer and a registrar.

Furthermore, it is possible to assign public workers whenever there is the need in different scopes (for instance the responsibility for water and hygiene). It may happen that workers called for national civic service (persons who just after graduating are designed to work in public institutions instead of taking part for the military service) are affected in the communities. So the minister of Territory Arrangement and community Development decided according to order n° 0025/MAT/DC/DAAF/DAAP to place a called worker in every community to help in the establishment of community development plan. However, till August 2009 few of them have been

realized. One of the reasons for this situation is the absence of town halls. Figure 2.2 (6) presents the community organization

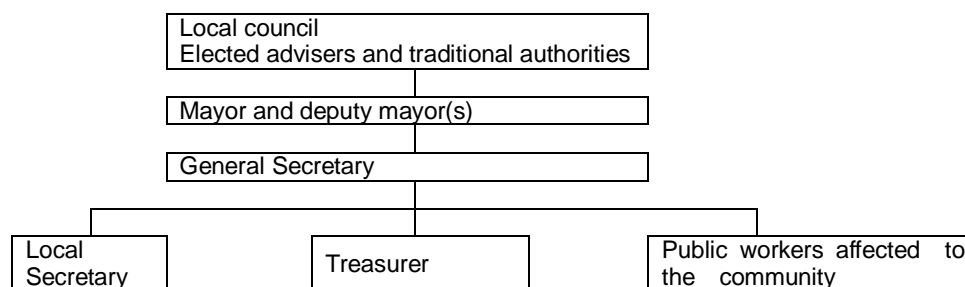


Figure 2.2 (6) Community Organization

The community's income is composed of direct and indirect tax. The important incomes in terms of direct tax are yielded from the tax of administrative district collected by village chiefs, tax of toll etc. Among the indirect tax sources of income, market tax and slaughtering tax.

Among problems to which the communities are confronted 1) the lack of funds (notably the lack of tax revenue), 2) the fact that there is no town hall, 3) Lack of facilities for a best community work (office equipments, fuel cost, etc., 4) Number and quality of personnel, 5) The fact that mayors and advisers are not qualified to fulfill new tasks, 6) the fact that in some cases political conflicts block the community work. Niger government is willing to take form of measures to make the 265 newly created communities solve these problems and able to carry on without any difficulties their mission.

The rural development strategy established in November 2003 firstly considers the support to decentralization. The "local community development" one of the 10 structuring programs consists of supporting decentralization and competence to communities (notably in terms of public investments, management of infrastructures and natural resources management). Another structuring program titled "Administrative and rural organizations capacities reinforcement for improving the rural sector management" appointed the capacities reinforcement of community advisers.

The ministry of Territory Arrangement and Community Development established a National Policy for Local and Community Development.

2.2.7 Land property

All laws regulating the land property scope in rural area come from the rural code. The objectives of rural code are:

- Contribute to secure land property of rural operators, notably the users of natural resources
- Contribute to a sustainable management of natural resources by informing, forming the actors and controlling the implementation
- Contribute to the territory management through the adoption of land property management schemes
- Contribute to the reinforcement of rural institutions capacities in the decentralized process of natural resources management.

The institutions of the rural code are:

- The National Rural Code Committee
- National Permanent Secretariat
- Regions permanent secretariat rural code

- Department Land Property Committees(DLPC)
- Community Land Property Committees (CLPC)
- Basic Land Property Committees(BLPC)

Among all these institutions it is the Community Land property Committees (CLPC) and the Basic Land property Committees (BLPC) that are closer to rural operators therefore have the following takes:

(1) Community Land property Committee (CLPC)

- The implementation of land property delivery process in relation with the Department Land property Committee (DLPC)
- The supervision of Basic Land property Committees in villages
- The control of the implementation of rural community natural resources
- The implementation of the process of securing (identification, delimitation, materialization and registering in rural code) common resources (animal passage corridors, grazing land, forests, animal resting land...) and control of their realization.
- Contributing to the process of planning the scheme for region land property management
- Delivery of contract of rural concession for land of public and private scope.
- The delivery of certificate to pastoralist for the right of priority usage of terroir to which they are attached in relation with the Department Land property Committees (DLPC).

(2) Basic Land property Committee (BLPC)

- Assisting villages or tribe chiefs in registering the minutes of conflicts conciliation
- The control of the implementation of natural resources of a village or tribe
- The implementation of secure process that include identification, delimitation and materialization of natural resources (animal passage corridors, grazing land, forests, animal resting land...).
- Informing and sensitization of village population or tribe to be aware by vulgarization of rules contained in the rural code.
- Assisting villages' chiefs in delivering the land property deed.

According to law (in the rural code) the State is in possession of land, the system is that private get the right to use land from the state and manage them. However the right to land property is recognized for all persons (heritage). Actually in rural area the chief of villages (representatives of the administration have the land distribution and attribution power according to customary laws, the right to land use is inherited from parents to children with the approval of the chief of village, this right to land use is often own by men. After marriage the husband gives the right to use the land to his wife but in case of divorce the wife does not benefit of any good nor of any land a part from the one she inherited from her family.

Government is promoting the rural code system, to register a land it must be measured and this needs more money that is why some few lands are registered in the cadaster. For this reason land limitations for the right of land use are not clear, this easily favors the appearance of land property conflict due to causes exposed in table 2.2 (7)

Table 2.2 (7) Real cases of land property conflicts causes.

Causes of land property conflict	<ul style="list-style-type: none"> • Increase in population • Decrease in yields due to soil degradation • Live stock movement • Occupation of pasture, corridors for animals, water supply facilities • Traditional mode of land distribution • Misunderstanding and non-application of land property contracts • Default of materializing limits of grazing land and animal passage corridors in zones with high density population or even if there is materialization, but no impact.
Real case of land property proceeding in Dosso region	<ul style="list-style-type: none"> • In rural area, animal passage corridors are illegally occupied by peasants • Clearing of grazing land • Installation of peasants close to water supply facilities for animal watering • Damages caused by animals after intrusion in agricultural fields • Erroneous arbitration in discussing land property problems by village chief or by a public worker. • The land owner asks for return • Problem of limitations of agricultural field between peasants • Assets conflict for land • Disposal, lent or sale conflicts for land • The refuse to give an advance on revenues from utilization

Source : rural code document

For an example, population density in Dosso region is of 50 inhabitants per km², which is high density, and reaches in provincial towns of Boboye, Gaya and Dogon Douthi department's 100 inhabitants per km². This makes it easier for land property conflicts to occur so land committees were set up. Table 2.2 (8) presents the number of land property proceedings in Dosso region from 1995 to 1999, and the number of conflicts has the tendency to rise from one year to another. Causes of proceeding are as well presented in table 2.2(7), and there are three categories of conflicts: between farmers, between farmer and herder, or between the same family members for the right to land use.

Table 2.2 (8) Evolution over years of the number of minutes in Dosso region

	1995	1996	1997	1998	1999
Number of minutes	11	61	55	77	76

Source: Rural code document

2.2.8 Gender

In Niger women emancipation is facing many problems such as poverty, difficulties of practicing economic activities, excessively heavy labor, difficulties of participating in the decision making, difficulties of access to education. To solve these problems, the directorate of woman promotion under the ministry of woman promotion and child protection planned a policy in the scope of gender and create a partnership with other ministries and technical and financial partners. Women are receiving a constant technical assistance from the directorate. However the inadequacy of resources does not permit the directorate to fully apply this support to the village. To induce the rural development in Niger, it is imperative to solve these problems.

- **Poverty:** According to the syntheses' report of the Poverty Reduction Strategy (PRS) in 2002, In Niger the optimum poverty line is fixed to 50,000 FCFA mean annual income per person in rural area (75,000 FCFA in urban area), and for the extreme poverty line an income of 35,000 FCFA per person (50,000 FCFA in urban area). Based on these indexes, 86% of Nigeriens in rural area live below the optimum poverty line, and 36% of them live below the extreme poverty line. 2/3 of persons living below the extreme poverty line are women.
- **Economic activities:** in many cases the revenue generated from agricultural products are men's properties, this limits women to practice the small scale trade as the only source of income. Women use their income in most cases to purchase food product, to satisfy their children's

needs or the needs for education. Though the access to microfinance institutions is actually limited, the demand for credit is high.

- **Overwork:** In Niger women are overburdened with any type of daily tasks such as husking and threshing of millet, fetching firewood, fetching water, taking care of livestock, washing, help to carry on field work, etc. Woman spends most of her time carrying on these various tasks and this causes a serious problems. This is one of the factors blocking the emancipation of woman in society.
- **Participation in Decision making:** In many cases the decision making is the responsibility of village chief, elders. Particularly, in rural area women are placed at the bottom of social scale and have some relatively little possibilities of participating in important decisions making.
- **Difficulties of access to education:** There are gender differences in the education sector. The youth literacy rate (15-24 years, 2000-2007) is 53% for men and is of 26% for women. Primary School enrolment rate (Net) is of 56% for boys and of 40% for girls (UNICEF Report on world children situation 2006).

2.3 General view of the economy

(1) Generals ideas

In Niger, the Gross National Product (GNP) was 120,976 FCFA (equivalent of 230 Dollars) per inhabitant in 2004 and the country was classified by the World Bank in the group of least-less-developed countries of the world. This Gross National Product is increasing a little bit every year, but as the population continue increasing even that the production unit area has still not been changed, the GNP per inhabitant tends to become lower from year to year.

Table 2.3 (1) Gross National Product of Niger (2002-2004)

	2002	2003	2004
GDP (Billions of CFA)	1,439.53	1,466.27	1,474.91
GDP/inhabitant (CFA)	126,000	124,236	120,976

Source : NIGER IN NUMBERS (Government booklet)/ National Statistics Institute (2005)

The commercial balance of Niger is suffering from a chronic deficit which denotes itself by the amounts of importations that double the amounts for exportations, this deficit is only rising with years. More than half of importations concerns machineries, firstly cars and kerosene but also cereals representing about 20% of the total amount.

Table 2.3 (2) Commercial balance (billions CFA)

	2002	2003	2004
Exportations	117.5	116.1	123.9
Importations	275.1	287.2	338.7
Balance	-157.6	-171.1	-214.9

Source : NIGER IN NUMBERS (Government booklet)/ National Statistics Institute (2005)

Though the large majority of Nigeriens live of incomes from the primary industries, uranium represents more than half of exportations and primary industries represents only 27% of total exportations. The most important amounts in terms of exportations from the primary industries come from livestock rising which reaches 18.2% of the total with 22 billions and 569 millions CFA and cattle alone represent 8.3% of total exportations. Agriculture represents only 9% of the total with an amount of 11 billions and 214 millions CFA that come from onions, cowpea and cotton in descending order of importance. Productions from primary industries are always getting used to satisfy the national demand notably because of climatic variations and increase in population; that is why the amount of exportations is decreasing with years.

Table 2.3 (3) Main exportations (millions CFA)

	2002	2003	2004	(%)
Uranium	62,456	65,620	70,140	56.6
Animal raising	27,378	26,701	22,569	18.2
(Cattle)	9,326	11,077	10,281	8.3
Agricultural products	17,630	16,354	11,214	9.0
Cowpea	2,054	1,619	2,059	1.7
Onions	13,089	12,628	8,125	6.6
Cotton	0.216	0.039	0	0
Others	10,071	7,480	19,987	16.1

Source : NIGER IN NUMBERS (Government booklet)/ National Statistics Institute (2005)

(2) Economy of regions in the study area

The main economic activities in regions within the study area are agriculture and live stock raising, table 2.3 (4) gives the situation of economic activities for every region. The regions present the following particularities:

- Onions cultivation is developing in Tahoua region, and is sold in the entire country but also exported.
- Horticultural productions are highly developed in Niamey region
- Wet fields rice cultivation practiced along the Niger river is progressing in Tillabery
- Dosso region is the region in Niger that benefit of the most abundant quantity rainfall and the agricultural productions of sedge, sesame, sweet potato, sugar cane etc. are also abundant
- In terms of farming income, Maradi region is first. This is due to favorable conditions of production and distribution, and the fact that the region borders Nigeria which is an important market for exportations count enormously.
- Aviculture is developing these recent years in Dosso, Maradi and Niamey regions
- Continuous grazing is being actively practiced in the north of Tahoua region with the presence of Touareg.
- Migration is being generalized in Tillabery and Tahoua regions. This is because desertification is common in these two regions in difference with the other regions, this involve a decrease in yields and difficulties of seeking for new agricultural land.
- Fishing tends to develop where it is possible in all regions
- Industries highly differ from one region to another.

Table 2.3 (4) Situation of economic activities region by region

	Niamey region	Tillabery region	Dosso region	Tahoua region	Maradi region
Agriculture	<ul style="list-style-type: none"> - Millet - Sorghum - Wet field rice - Cowpea - Vegetables - Fruits 	<ul style="list-style-type: none"> - Millet - Sorghum - Wet filed rice - Cowpea - Groundnut - Sesame - Sorrel - Voandzou- nut - sedge - Vegetables - Fruits 	<ul style="list-style-type: none"> - Millet - Sorghum - Wet field rice - Cowpea - Groundnut - Sesame - Sorrel - Voandzou- nut - Sedge - Fonio - Maize - Cotton - cassava - Sweet potato - Sugar cane - Vegetables - Fruits 	<ul style="list-style-type: none"> - Millet - Sorghum - Cowpea - Cotton - Onions - Tomatoes - Sweet potato - Vegetables 	<ul style="list-style-type: none"> - Millet - Sorghum - Cowpea - Cotton - Groundnut - Sedge - Sesame - Sorrel - Vegetables - Fruits
Livestock raising	<ul style="list-style-type: none"> - Cattles, goats, sheeps, camels, donkeys, poultry 	<ul style="list-style-type: none"> - Cattles, goats, sheeps, camels, donkeys, poultry 	<ul style="list-style-type: none"> -Cattles, goats, sheeps, poultry 	<ul style="list-style-type: none"> - Continuous grazing in the north -Cattles, goats, sheeps, camels, horses, donkeys 	<ul style="list-style-type: none"> - Bovines, caprins (red hair), ovins, camels, donkeys, poultry
Migration		<ul style="list-style-type: none"> - Generalized (Contribution to household budget) 	<ul style="list-style-type: none"> - Concerns one part of inhabitant of the region 	<ul style="list-style-type: none"> - Generalized (because of food deficit) 	
Other economic activities	<ul style="list-style-type: none"> - Increase in the utilization of raw materials (cupper, vegetables) - Collection and re-utilization of resources - Presence of many factories and industrial productions basis. 	<ul style="list-style-type: none"> - Underground resources (gold, cupper, iron, phosphor, marble) - Extraction of gold - Art craft products - River network of 400 km - Touristic zone 	<ul style="list-style-type: none"> - Production rock salt and exportation to other regions and abroad (Nigeria, Benin) -Commercial node for wood in Tahoua region and animal meat in Tillabery region. - Exportation of cowpea, onion, poultry and skin to Nigeria and Benin. 	<ul style="list-style-type: none"> - Reserves of charcoal, phosphorous, limestone - Production of cement - Filatures - Basketwork, art craft, cutlery work - sale of millet and vegetables to other regions - Animal and vegetable Exportation (onions, tomatoes) to Ivory Coast, Nigeria, Ghana, Algeria. 	<ul style="list-style-type: none"> - Niger economy center - Commercial Basis for other regions and Nigeria - Fishing that recent year in Madarounfa lake and in some ponds.

Sources : Temporary report of studies on the advanced diagnostic and analysis agro-sylvo-pastoral production system in the frame of the implementation of the RDS October 2004, and the news paper "Building Africa"/Hors Serial N° 004/ June-July-august 2004.

2.4 Primary industries

2.4.1 Agriculture

(1) Millet and Sorghum

Agricultural lands in Niger are limited to the southern part of the country and only 12% of the territory can be utilized. Millet and sorghum are the main agricultural products that occupy the two third of the total agricultural lands (15 million hectares). To cover the rapid increase in population which is over the annual rate of 3%, yields are increasing due to the extension of unit area, as shown in table 2.4 (1). However, as rainfed agriculture is dominating, yields depend on

rainfall. For instance in 2004 a small drought caused a drastic diminution of planting area and yields.

Table 2.4 (1) Evolution of planting areas for the main speculations as the years go by 5 years back

Years	Planting area (hectares)	Total yields (tones)
2000	11, 686,912	2, 468,649
2001	11, 731,089	3, 651,839
2002	12,168 ,786	4, 126,120
2003	12, 708,799	4, 317,110
2004	11, 080,539	3, 212,459

※ Main speculations : 13 speculations: Millet, Sorghum, corn, rice, fonio, cowpea, groundnut, sesame, Sedge, Voandzou- nuts, Roselle, sorrel, onions.

Source: Definite results Agricultural campaign 2000-2004 /MDA DCV

Fundamentally the agricultural practice is family type carried out using traditional skills which requires man's labor force therefore leading to low productivity. The mean surface area of an economic unit is 5 hectares, and the number of labor force employed is 6. The low application of organic matter, the reduction of fallow periods and clearing of non fertile lands induce the extension of water and wind erosion therefore reducing their productivity. Planting areas for rainfed agriculture that are being fertilized using chemical fertilizers represent less than 4% only.

Irrigated agriculture is generally practiced on small scale surface area. Agricultural field area goes from 0.25 to 0.50 hectares per family. These lower areas result from inheritance succession which makes it more difficult to ensure the farming cost - effectiveness. Moreover, insufficiencies in terms of community water management and difficulties in equipments management are the obstacles for the long lasting of irrigation systems.

Consequently, to maintain or to increase the productivity in the view point of food security in Niger, it is urgent to increase the rainfed agricultural productivity per unit area and to extend irrigated agriculture.

Table 2.4(2) gives the Farming areas and yields of the main speculations in the 5 regions concerned by the study. This table will help to understand that if the rate of farming area in relation to the total area of Dosso and Maradi is large, it is however low in Tahoua and Tillabery because of variations in rainfall and topography.

Table 2.4 (2) Farming areas and yields of the main speculations in the 5 regions (2004)

Region	①Total area (ha)	②farming area (ha)	②/① (%)	③ Yield (kg)	③/② (kg/ha)
Dosso	3,100,000	1,681,109	54%	632,266,000	376
Maradi	4,176,900	2,598,655	62%	769,598,000	296
Niamey	23,900	-	-	-	-
Tahoua	11,337,100	2,111,420	18%	544,047,000	258
Tillabéry	9,290,800	1,887,006	20%	471,062,000	250

Harvest and yields differ with crops and the totals mentioned her are indicative and not considered as data.

Data concerning Niamey are not reliable since 2002 so are not mentioned.

Main speculations: 13 crops: Millet, sorghum, corn, rice, fonio, cowpea, groundnut, sesame, Sedge, Voandzou-nut, Roselle, okra, and onions.

As shown in Table 2.4 (3), it gives the evolution for the main crops harvests in the 5 regions concerned by the study. For all regions, year to year disparities are important, but particularly in 2004, where in addition to low quantity rainfall, differences in rainfall from one locality to another and its distribution in time caused succession of punctual droughts which led to low harvests.

Table 2.4 (3) Evolution of main crops harvests in the five (5) regions

(Unit: Tone)

Region	2000	2001	2002	2003	2004
Dosso	383,890	636,709	723,736	656,587	632,266
Maradi	634,446	791,494	998,994	1,074,497	769,598
Niamey	4,716	6,038	13,313	11,175	14,691
Tahoua	439,650	680,736	691,637	831,092	544,047
Tillabéry	332,901	652,697	716,453	761,352	471,062

※ Main crops : 13 crops: Millet, Sorghum, Corn, Rice, Fonio, Cowpea, groundnut, Sesame, Sedge, Voandzou-nuts, Roselle, Okra and Onions.

Source : Definit Results Campagne Agricole 2000-2004 / MDA DCV

(2) Wet field rice cultivation

In Niger, rice is the third cereal crop in terms of area and production after millet and sorghum. However, the National production estimated to 70,000 tons of paddy covers only one third of consumption needs. Importations (3.3 billions CFA in 2002) tend to rise from one year to another notably because of the high demography rate of 3.1%/ annum (Statistics institute 2001). Rice annual consumption per inhabitant passes from 12 kg in 1989 to 17.6 kg in 2002. Intensification efforts have been already consented by the State who managed thousands of hectares for rice cultivation coupled with a total water control and facilitated the popularization of improved varieties (D5237, IR529, DR54, IR8, BG90) in 80s. These varieties over a period of time showed their low productivity quality and sensitivity to biotic and abiotic factors prevailing in the region.

In 1997, other two varieties WITA 8 and WITA 9 were popularized. In addition to the increase in yield, these varieties showed their performance (10% to 15%) and were more resistant to rice mottle virus disease (most severe rice disease in Niger) than the local varieties. Despite their agronomic performance today, these varieties are being rejected by farmers.

(a) There are three wide forms of rice cultivation

- Traditional rice cultivation practiced under flood condition, along rivers or ponds. It is rainfed and requires high amount of rainfall. Area for this form of cultivation is about 10,000 ha with means yield in the order of 0.7 t/ha.
- Irrigated rice cultivation carried out on projects with total water control, considered today as the best system. If the cropping system is intensive, labor manually carried out, a part from plowing practiced using animal trained equipments (the use of tractors being firstly rejected) farming area may be of 8,000 ha during 2 seasons, that is a production of about 54,000 tones of paddy/ annum; which represents 83% of the total production in the country. Yield varies from 4 to 5 t/ha.
- Small scale private rice cultivation with individual pumping equipment, this includes mostly narrow scantily managed farming area where rice is cropped during rainy season followed by tobacco and legume cultivation during the dry season. Total farming areas are estimated to 1,500 ha and average yield of 3t/ha are obtained.

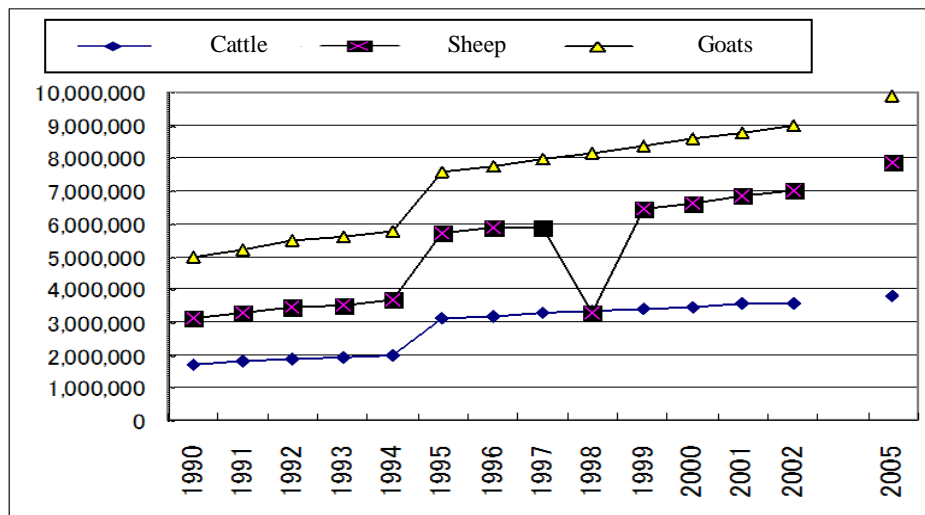
(b) NERICA variety in Niger

In 2004, evaluations of 70 inter and intra specific varieties of rice were carried out in many countries members of WARDA (Mali, Burkina Faso, etc) Niger included. The experimentations were conducted in Niger on two rice sites of rice cultivation Sibery and Bonfeba. After two years of experimentation (2004 and 2005) 6 varieties were selected by the selection program of NIARN.

The global evaluation (agronomy, socio economic, technologic and organoleptic qualities) of the 6 best inters and intra specific varieties done in collaboration with PAFRIZ in 2006 and 2007, permitted to select two NERICA varieties: NERICA-L-49 and NERICA-L-39 and on intra specific: TGR -48.

2.4.2 Live stock

In Niger, this sector represents constantly every year 10% of the GDP and contributes well to the country's finances and economy through local national tax. Figure 2.4 (1) shows that the stock is increasing these recent years.



NB: Sectorial data for 2002 and 2003 are not yet available

Sources : Rural Development Strategy /Secretariat of the RDS (2003)

NIGER IN NUMBERS (government booklet)/ National Statistics Institute (2005)

Figure 2.4 (1) Evolution of live stock in Niger

Fundamentally live stock practice can be classified into 3 types

① Transhumant livestock

During rainy season animals are placed on a grazing land close to farm land. Animals graze freely on this land from June to October and occupy the farm land after harvest in November, passing through fields and fallows consuming food stuffs.

② Nomadic livestock

This is a type of live stock in which specialized herders (Touareg and Fulani) rear their animals year round.

③ Sedentary livestock

This is practiced by settled breeders and peasants possessing only small number of animals. They are raised in fallows, in farm lands close to the village and on non agricultural land, etc.

The extensive forms of livestock are of common practice in Tahoua and Tillabery regions whereas the semi-intensive forms are practiced in the other regions.

The number of animals possessed, as a mark of power for herders, they prefer the increase in number of animals instead of increasing their income by selling the animals. When farmers possess a financial margin they prefer to save by buying more animals instead saving money. The increase of the animal stock these recent years makes the access to fodder from grassland difficult and induces a competition for fodder between breeders and for frictions with farmers.

2.4.3 Forests

(1) Situation of forest resources

Looking at table 2.4(4): Situation of forest resources in Niger, the total area of classified forests for the 5 regions within the study area represents 82 % of all classified forests in Niger, of which Tillabery region alone occupies 61 %. Tillabery region is crossed through and through by the Niger river valley and the annual rainfall ranges from 200 to 800 mm inducing a wet environment best required for its abundant vegetation. Consequently, government marked 4.0 % of the area of Tahoua region into classified forest and thoroughly ensures their protection.

The area of restoration zones in the 5 regions represents almost 100% of the total area for these zones in Niger. The 5 regions are relatively favored in terms of vegetation, but this vegetation is gradually being degraded by desertification. This phenomenon is particularly pronounced in Tillabery and Tahoua regions. Government uses all his efforts in these two regions for restoration, but the restoration zones represent less than 1% in terms of area.

Table 2.4 (4) Situation of forests in Niger (2004)

	Classified forests (hectares)	Percentage of classified forests in relation to area of concerned zone	Area of restoration (hectares)	Percentage of restoration area in relation to area of concerned zone
Niger	637,658	0.5	16,505	0.013
Total de la zone de l'étude	520,967	1.8	15,157	0.053
Niamey	17,204	0.5	153	0.005
Tillabéry	100,874	2.4	206	0.005
Dosso	225	0.9	0	0
Tahoua	11,659	0.1	7,399	0.065
Maradi	391,005	4.0	7,399	0.076

Source : National Statistics Institute (2005)

(2) Forest resources utilization

Forest plant residues like wood, fruits, leaves are currently utilized in daily life of populations. Particularly fire wood utilized as domestic fuel for food preparation is essential to population's day life. Table 2.4 (5) gives the rate of fire wood utilization(wood and charcoal) as domestic fuel which reaches 92% in urban zones and 96.1% in villages.

Table 2.4 (5) Domestic fuel utilized for food preparation

	Electricity	Gas	Kerosene	Charcoal	Fire wood	Other	Total
Town	1.1 %	2.1 %	1.1 %	2.4 %	89.6 %	3.7 %	100 %
Villages	0.1 %	0.1 %	0.1 %	0.2 %	95.9 %	3.6 %	100 %

Source : MICS 2000

Based on results of a study carried out conjointly by ICFDS and Sahel Club in 1981, the annual wood consumption is estimated to 1.156 steres. A document established by the implementation comity of RDS has been evaluating the forests area needed for wood production and forests area also needed for wood production In the 5 regions concerned by the study.

Results indicate that the quantity of fire wood that may be needed in year 2015 will be about 2.01 millions steres, and the forests area required for wood collection will be about 1.09 millions ha, this will represent 165% of the total area of classified forests within the study area.

Table 2.4 (6) Gives the demand for wood forests and required forests area for its production in the 5 regions concerned by the study

Year	Population	Demand for fire wood (stere)	Required forests area for firewood production (ha)
2001	1,106,291	1,278,872	691,432
2002	1,142,799	1,321,075	714,249
2003	1,180,511	1,364,671	737,819
2004	1,219,468	1,409,705	762,167
2005	1,259,710	1,456,225	787,319
2006	1,301,281	1,504,280	813,300
2007	1,344,223	1,553,922	840,139
2008	1,388,582	1,605,201	867,864
2009	1,434,406	1,658,173	896,503
2010	1,481,741	1,712,892	926,088
2011	1,530,638	1,769,418	956,649
2012	1,581,149	1,827,809	988,218
2013	1,633,327	1,888,126	1,020,830
2014	1,687,227	1,950,435	1,054,517
2015	1,742,906	2,014,799	1,089,316

2.4.4 Fishing

In November 2006, Niger adopted a new development strategy about fisheries. The contents of this new strategy conform to the Rural Development Strategy (RDS), notably “Professional organization and paths development”. This new strategy defines the new orientations concerning fishing and fish farming. It has the objective of giving fishermen the responsibility of fisheries conservation and management in respect to the ecologic system and biodiversity so as to struggle against food insecurity and poverty.

In the area of water resources, the main rivers that have a high fishing potential in Niger are presented as follows: Table 2.4(7)

Table 2.4 (7) Main rivers that have a high fishing potential in Niger

Region	Rivers	Length in km	Volume (millions of m3)
	<u>Niger River</u>	550	32,400
<u>Tillabéri Region</u>	Googol (tributary)	105	322
	Dargol (tributary)	142	160
	Sirba (tributary)	100	697
	Goroubi (tributary)	210	160
	Dyamangou (tributary)	50	100
	Tapoa (tributary)	42	40
	Mékrou (tributary)	100	923
<u>Diffa Region:</u>	Komadougou (river)	160	501
<u>Maradi Region:</u>	Goulbi N'Maradi (river)	-	218
	Goulbi N'kaba	-	173
<u>Tahoua Region:</u>	Maggia	-	20
<u>Zinder Region:</u>	Korama	-	200
<u>Dosso Region:</u>	Dallol Maouri	-	250
	Dallol Bosso	-	200
	Total		36,364

Source: MWRFE/FAD (1999)

In addition to these rivers, there are lakes, permanent and semi permanent ponds suitable for fish farming.

In Niger, fishermen's organizations have been created from 1990 to our present days in regions with a high fish breeding potential (Tillabery, Tahoua, Maradi, Zinder and Diffa):

AFN: Association of Fishermen of Niger

AFWN: Association of Fish Wholesalers of Niger

AFTN: Association of Fish Traders of Niger

NFFPA: National Federation of Fish Path Associations

Many cooperative and united cooperatives or groups of fishermen, fish wholesalers

However, fish production essentially composed of individual fishing has varied between 1972 and 1996; this production tends to rise due to the intensification of fishing around the lake Tchad (62 to 78% of the national production).

Fish production distribution according to region is presented as follows: Table 2.4(8)

Table 2.4 (8) Fish production distribution according to region

Year Department	1996	1997	1998	1999	2000	2001	2002	2003	2004
Agadez	-	-	-	-	-	-	-	-	-
Diffa	148.5	200.0	1,201.0	4,443.0	10,370.0	12,962.5	15,000.0	47,300.0	47,300.0
Dosso	1,141.0	864.0	1,006.0	1,262.0	1,871.0	2,495.0	2,994.0	2,994.0	2,994.0
Maradi	21.0	69.5	65.5	145.0	146.0	182.5	42.0	42.0	42.0
Niamey	1,039.0	1,095.0	566.0	597.0	606.0	757.5	306.0	306.0	306.0
Tahoua	1,072.0	2,501.0	2,716.5	2,730.5	2,000.0	2,500.0	3,000.0	3,000.0	308.0
Tillabery	597.0	1,500.0	1,267.0	1,686.5	1,380.0	1,725.0	2,070.0	2,070.0	456.0
Zinder	138.5	112.0	198.0	150.0	147.0	176.5	108.0	108.0	60.0
Total Controlled National Production	4,157.0	6,341.5	7,020.0	11,014.0	16,520.0	20,799.0	23,520.0	55,820.0	51,466.0

Source: MWRFE/FAD (2005)

In other part the national fish consumption is of the order of 2.1 kg per inhabitant per annum, which relate an annual demand of 23,000 tons against a production of 9,000 tones coming from The Niger River, ponds and reservoirs. This leads to high quantity fish importations from neighboring countries (Nigeria, Mali, Senegal, Benin and Ivory Coast etc.).

Fishing area occupies 50,000 persons (according to DFPP (Direction de la Faune, de la pêche et Pisciculture)/MWRFE/FAD in 2006). The average annual income of a fisherman in the Niger River basin is 250,750 CFA, whereas at Tabalak (Tahoua region) for 5 to 7 months of fishing, it ranges from 150,000 to 800,000 CFA.

Concerning the trade of fish, according to a study conducted by the Direction of Fauna, Fishing and Fish farming from January 2006 to June 2006, the monthly income of a woman fish trader varies from 128,150 CFA (for seller) and 331,080 CFA (for a dealer).

This shows the importance of fishing in the family income.

2.5 Strategies and national policies in terms of rural development

The Development plan at national level placed at the top of the action plan established by this study is the Poverty reduction strategy which has the objective of reducing the number of Nigeriens living under the poverty line from 66% to less than 50% in 2015. Downstream of this strategy, strategies/ development plan were established in different sectors (see figure 2.5(1)) and the upper level plan in direct relation with this study is the Rural Development Strategy (RDS).

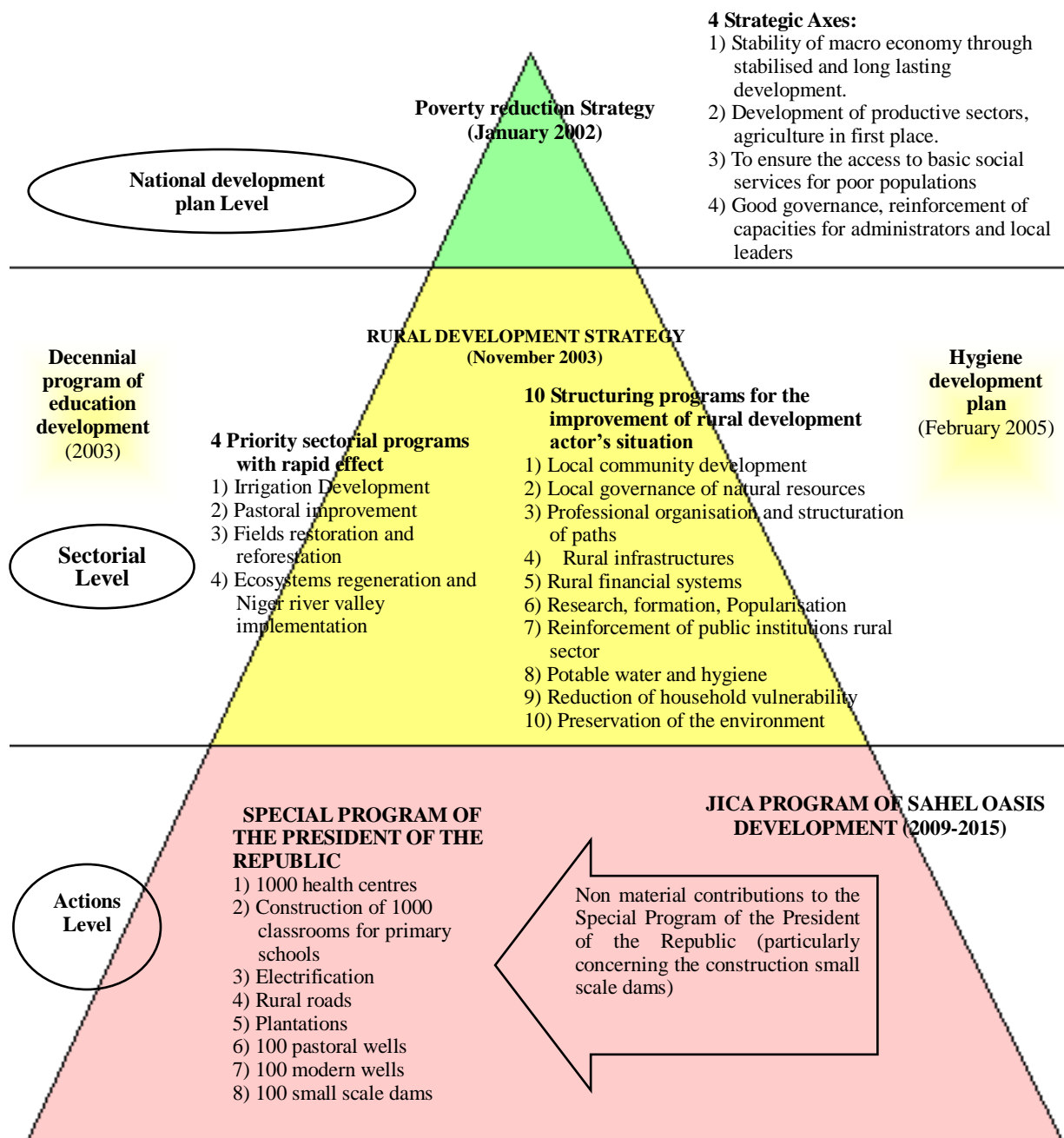


Figure 2.5 (1) Relationship between the action plan and the upper level plans and programs

A part from the Rural Development Strategy, there is also the “Decennial Plan for Education Development” and the “Health Development Plan” that are indirectly in relation with our study. In addition, our study considers the rational utilization of small reservoirs constructed within the framework of the Special Program of the President of the Republic (SPPR) as a way for reaching the action plan objectives, and it is classified that this action plan as the non material part contributing to material part of the construction of small scale reservoirs by the SPPR. These are the great lines of the “Poverty Reduction Strategy” and that of the “Sectorial Development Plan”.

2.5.1 Poverty Reduction Strategy

The commitment of Niger government in the deep review of Poverty Reduction Strategy led to the development of the Accelerated Development Strategy for Poverty Reduction (ADSPR) in 2007 for a period of 2008 to 2012. For this review it has been taken into consideration the different annual reports giving the situation of the implementation of the Poverty Reduction Strategy (PRS) from 2002 to 2006, the reports of progress following up for meeting the Millennium Development Goals (MDGs), results of joint reviews in the scopes of education, health, access to potable water, Fight against desertification and the evaluation reports of the Special Program of the President of the Republic (SPPR) that evidence the progress accomplished for meeting the objectives of struggle against poverty.

Niger is engaging itself to meet by 2015 the Millennium Development Objectives and consequently to improve significantly all socio economic indicators by 2012. So the following targets are expected:

- Economic growth rate of less than 7% per annum
- Individuals poverty rate of 42%
- Malnutrition rate (Weight insufficiency) of 24%
- Primary school enrolment rate of 94%
- Adults literacy rate of 45% considering sexual parities
- Death rate infant and juvenile of 108‰
- Death rate at delivery to 200 per 100,000 alive births
- HIV AIDS prevalence rate maintained under 0.7%
- Coverage of 50% rural zones and 100% urban zone with electric connection
- Medicated mosquito net utilization rate of 35% for children and pregnant women
- Synthetic fecundity rate of 6 children per woman
- Protected area at least equal to 8% of the national territory
- 100% coverage of national needs for cereals

To favor the achievement of these objectives the ADSPR is declined according to (7) strategic axes

Axe 1: Research of a strong, diversified, long lasting and employments creative growth

Axe 2: Impartial access to social services

Axe 3: Control of population growth

Axe 4: Inequalities reduction and the reinforcement of the social protection of vulnerable groups

Axe 5: Infrastructures development

Axe 6: Good governance

Axe 7: The implementation of the Poverty Reduction Strategy

The ADSPR prioritizes the consideration of regions specifics. In particular, the implementation of the Rural Development Strategy (RDS) at region and local levels is in keeping, together aim at minimizing the regions and intra regions imbalances, controlling rural migration, favoring the rational exploitation of national resources and better valuing regions potentials.

The regions potentials for development will be done according to economic opportunities, notably the agriculture, stock raising and sylviculture potentials, mining, crafts, tourist and cultural resources (see table 2.5.(1)).

Table 2.5 (1) Regions potentials and priority scopes of intervention

Regions	Potentials	Advantages comparative potentials
Agadez	Onion, Garlic, Irish potato, Date, Grape, Citrus, Salt, Big livestock, Uranium, Charcoal, Kerosene, Craft and Tourism	Mining, Irrigation, Exportation of big livestock, Art craft and Tourism
Diffa	Onion, Arabic gum, Green pepper, Fish, Rice, Maize, Sorghum, Kerosene, Big livestock, Natron, Date, Craft and Tourism	Irrigation, Fishing, Big livestock, Art craft and Tourism
Dosso	Fish, Rice, Corn, Ground nut, Sugar cane, Arabic gum, Cotton, Small ruminant, Poultry, Art craft and Tourism	Irrigation, Cotton, Ground nut, Maize, Sesame, Fishing, Aviculture, Art craft and Tourism
Maradi	Ground nut, cotton, Sedge, Sesame, Arabic gum, Palm by-product, Tobacco, Small ruminant, Iron	Irrigation, Groundnut, Sedge, Cotton, Sesame, Exportation of small ruminant, Art craft and tourism
Tahoua	Onion, Cotton, Fish, Big livestock, Arabic gum, Phosphate, Gypsum, Calcareous, Charcoal, Craft and Tourism	Irrigation (onion), Cotton, Exportation big livestock, Mining, Art craft and Tourism
Tillabéri	Arabic gum, Rice, Fish, Sugar cane, Sedge, Big livestock, Iron, Gold, Phosphate, Charcoal, Hydraulic electricity Art craft and Tourism	Irrigation (Sugar cane, rice), Hydraulic electricity, Sedge, Fishing, Apiculture, Mining, Art craft and Tourism
Zinder	Ground nut, Sugar cane, Arabic gum, Big livestock, Gold, Craft and Tourism	Irrigation(Sugar cane), Groundnut, Apiculture, Exportation of big ruminant, Mining, Art craft and Tourism
Niamey	Arabic gum, Rice, Fish, Small ruminant, Poultry	Irrigation, Fishing, Aviculture, Art craft and Tourism

Source: Regions contributions to the PRS

The preference actions plan defined in the implementation of the ADSPR estimates the financial needs requirement to about 1,267.5 billions CFA (equivalent of \$2,531 billion) as mean annual over the period, of which 810.1 billion CFA (equivalent of \$1,062 billions) of outside resources to be mobilized per annum. This ADSPR caused the meeting in October 2007 between Niger and technical and financial partners in Brussels Belgium.

2.5.2 Rural Development Strategy

Adopted in November 2003, the Rural Development Strategy (RDS) devotes itself to the reduction of poverty advocated by the PRS in the limits of rural zones. It takes place up of the action plan established by our study concerning the rural development sector, comprises of 5 ministries in charge of rural sector, the Ministry of Territory Arrangement and Community Development (MTA/CD), the Ministry of Agriculture Development (MAD), the Ministry of Environment and Fight Against Desertification (ME/FAD), the Ministry Live stock raising and Animal Industries (MLAI), and the Ministry of Water Resources (MWR). In addition to these we have: the Ministry of Trade, Industry and Normalization (MTIN), the Ministry of Economy and finances (ME/F), the High Commissariat to Management of Niger Valley (HCMNV) and the Prime Minister's Cabinet (PMC) through the National Council of Environment for Sustainable Development (NCESD) for the sustainability of the Food Crisis Unit and the Unit of Precocious Alert and Disaster Management (UPA/DM) for the prevention of alimentation crisis.

In addition, government provided a specific system comprised of:

- **An Inter-ministry Steering Committee (ISC);** This committee consists of ministries charge of sector (MTA/CD, MAD, ME/FAD, MWR, MTIN, and ME/F): It decides on the operation and coordination; it drives the process of implementing the RDS and reports to the Government.
- **Two technical organs**
 - (a) A consultation structure between all rural development actors, RDS promoting and advice actors: Rural Development Technical Committee (RD-TC)
 - (b) A structure of coordinating the implementation of the RDS, of its follow up and evaluation and of the preparation of wished institutional and operational evolutions: The RDS Executive Secretariat (RDS-ES).
- **State/Technical and Financial partners consulting committee;** Who's set up is provided by the adoption of formal agreement involving the different partners and the State and also the set up of a piloting committee for the supervision of the mobilization of funds allocated for the coordination of strategies and programs implementation.

To make the implementation easier and to ensure the “populations alimentation security” and the “long lasting management of natural resources”, the RDS equips itself of three strategic axes declined into (10) structuring programs and four (4) preference sectorial programs ranged into programs and sub-programs presented in table 2.5 (2) below:

Table 2.5 (2) Key points of the Rural Development Strategy

Rural area problems analyzed in the RDS	
<ul style="list-style-type: none"> • Agro-sylvo-pastoral productions do not cover the demand, and the food supply situation is unstable. • Competition for the utilization of natural resources is source of conflicts. • Mines resources development involves the degradation of environment. • Cereal crops productions do not sufficiently increase to meet the increase in population. • The market is not yet developed; this blocks the competition principle to work efficiently. • The economic environment is not stable. • Professional organisms do not efficiently fulfill their role. 	
Strategies and objectives	
<p>1st strategic axe: To improve the access to economic facilities for rural farmers, permitting the long lasting economic growth in rural area.</p> <ul style="list-style-type: none"> ① Reinforcement of concerned organizations ② Improvement of access to financial services ③ Adoption of excellent techniques, and respond to population's need ④ Improvement of agro-sylvo-pastoral sale conditions ⑤ Diversification non agricultural economic activities <p>2nd strategic axe: To prevent risks, improve food security and long last management of natural resources for securing the life conditions of populations.</p> <ul style="list-style-type: none"> ① Water resources development for a diversified production ② Actions of preventing food crisis and natural catastrophes ③ Improvement of rural household food quality in the nutrition and heath view points ④ Edification of a long lasting management of natural resources ⑤ Ensuring the rural area development and protecting the environment <p>3rd strategic axe: To reinforce institutions and rural organisms capacities for the improvement of rural sector management.</p> <ul style="list-style-type: none"> ① Reinforcement of rural organisms capacities ② Reinforcement of rural sector information system ③ Reinforcement of the coordination and participation of concerned structures during the RDS implementation ④ Reinforcement of state services capacities in relation with the RDS implementation 	
Structuring programs	
<ul style="list-style-type: none"> • These programs promote the private initiative. For instance, support to good governance, decentralization, local development, professional organizations, support to distribution. • Programs contributing to the improvement of the situation of all actors for rural development. Provision of basic services. 	
Program	Main contents
1. Local and community development program	Importance allowed to communes
2. Natural resources (land property,	Application of code rural

water, vegetation, fauna) local governance program	Set up of land property commissions
3. Professional organization and paths structuring program	Funds for paths development Set up and supports to farmers association Supports to storage and conservation of cereals, market management Reinforcement of the private sector and support to distributors
4. Rural infrastructures Program	Transport facilities (road) information facilities, electrification
5. Financial system Program	Legislative measures, support to rural financial organisms Possibilities study of financing for extremely poor populations
6. Research- training- popularization Program	Research on highly needed techniques, and popularization of research findings Edification of an agricultural research system Establishment a training system (production techniques, management, distribution, villages development, literacy, etc.)
7. Program for the reinforcement of rural sector public institutions	Definition of roles of each service and that of each state service worker, their capacities reinforcement. Establishment of the rural sector information systems
8. Potable water and hygiene program	Construction and rehabilitation small scale water supply facilities Facilities management by populations Set up of health facilities
9. Household vulnerability reduction Program	Prevention and management of crisis and natural catastrophes (cereal banks, etc.) Health : Information activities, education and communication Support to extremely poor populations
10. Program of the environment preservation	Anti-erosive actions Production diversification Information, education and communication on the consideration of environment in the scopes of agriculture, livestock raising and energy
Preference sectorial programs	
The four preference sectorial programs aim at the realization of important investments, through a voluntarism approach so as to obtain quickly results, but coherent with that of the structuring programs.	
1. Irrigation program	Rehabilitation of existing water resource facilities, and management of new ones Investments in the small scale irrigation Water management, land property management Diffusion of production tools Improvement of production quality Markets development Fish farming
2. Program of pastoral zones management and protection of pastoral systems	The set up of animal watering facilities, maintenance. Inventory of corridors for animals, materialization, inventory of pastoral zones. Application of laws on agricultural land (grassland) Maintenance of market functionality , maintenance of prices Information system on grassland resources
3. Program of soil restoration and tree plantation.	Water and soil conservation activities by recipients Technical support and input support from the local administration, examination of land property problems Creation of a stimulating mechanisms for tree plantation The set up of public and private nurseries
4. Kandadji (Program of restoration and the implementation Niger river valley ecosystems)	Construction of a dam on the upstream Niger river to permit the production of electric power and irrigation

2.5.3 Other policies relative to the rural development

(1) The decennial program of education development

The weakness of the school attendance rate and literacy rate is an important obstacle in the implementation of actions of villages' development by villagers. Furthermore, government in the PRS, allocated an important role to education in terms of poverty reduction, and established the

Decennial Program for Education Development whose execution began in 2003. These are the key points of this plan

Table 2.5 (3) Decennial Program for Education Development

Upgrade Objective
Contributing to the improvement of access and accessibility to basic education by an increase and a best education supply
Objective
Improvement of the access to basic education (public schools and "informal")
Improvement of the quality of the basic education (public schools and "informal")
Improvement of central and local services, and responsabilization of local communities
Composites
Access: Rationalization of human and material resources Importance agreement for part time teachers Construction of school facilities with local tools Promotion of the maintenance of infrastructures and schools equipments
Quality: Reform on the training of teachers (public schools and "informal", and training on working area, reinforcement of the follow-up evaluation) Enrichment of pedagogical booklets and school books. Set up of well established following up modes
Improved organization: Affectations movements of personnel Reinforcement of human resources and their management Reinforcement of financial and material resources, and their management Reinforcement of capacities in terms of planning Reinforcement of capacities and responsibilities of School Management Committees (SMC))
Objective and expected results of the literacy program
Access: Objective: To rise the literacy rate which was of 19,9 % in 2000 to 38 % in 2013 Expected results: 200.000 persons are literates. It is also prospected for this to raise the number of workers in charge of literacy to 30 persons.
Quality: Objective: To rise the percentage of students passing exams during the literacy program from 47% in 2002 to 75 % in 2013 (in particular to rise this rate for women). This literacy program is held on in a participative manner (making to do) by actors from private sector sponsored by the State. The State determines the curricula and programs, and the private actors execute these programs. The Training Centre of Literacy Workers (TCLW) produces the private actors. The National Technical Committee establishes the curricula.

It is also mentioned in the policies related to agriculture, notably in the Rural Development Strategy, the necessity of reinforcing the capacities of literacy actors involved in rural development. This study, which established an action plan aiming at making the populations themselves to plane, execute and manage actions for village development, considers also that it is important to improve the "capacities in terms of literacy", notably the "capacities in terms of planning and management of actions" or the "capacities in calculation" of populations again. For this, it is necessary to gaze especially at the trend of the Program of Non Formal Education Development (PRONFED), which is the program for literacy in the frame of the Decennial Plan for the Development of Education.

(2) Health Development Plan (HDP) 2005-2009

In Niger, the situation in terms of nutrition, access to clean water, hygiene, is bad, and the importance of improving the sanitary situation is notably underlined in the Poverty Reduction Strategy. The Health Development Plan (HDP) (2005-2009), was established in February 2005, on the base of the Poverty reduction Strategy, of the Managerial Plan of the United Nations for the Assistance to development, and of 2002-2011 strategy of the Ministry of public health and struggle against Endemic diseases. The plan exposes the strategies to be implemented, the preference actions, and the necessity of global financing. These are the outlines of this Health Development Plan:

Table 2.5 (4) Outlines of the Health Development Plan

Upgrade Objective	
The main orientation HDP is the improvement of the efficiency and quality of the sanitary system considering the actual potentials. This will permit to reduce to ¼ the death rate at delivery between 1990 and 2015, and to reduce to 2/3 the infant-juvenile death rate between 1990 and 2015.	
Expected Results	
To meet these objectives in terms of health defined in the PRSP, the 8 objectives below have been retained :	
①	To improve the accessibility of populations to quality healthcare services
②	To reinforce Health and Reproduction activities
③	To reinforce the process of decentralization in the scope of health
④	Participation of Communities to local policies for health
⑤	To reinforce the management capacities and the institutional competencies of the Ministry of Public Health and Struggle Against Endemic diseases
⑥	To compensate for the qualitative and quantitative insufficiency of personnel
⑦	Effectiveness and efficiency of managing infrastructure and material resources
⑧	To increase the availability of essential medicines and quality pharmacy in health centers.
Activities	
For each of the above expected results, an activity plan and a budget were established. The Ministry of Public Health and Struggle Against Endemic diseases prospect a budget of 18 billions 480 millions CFA to meet these objectives.	

In this plan, the activities with deep relation with this study are the “sensibilization activities (information, education and communication, mentalities changes)” and the “participation of populations to health activities”. The plan directly at the top of this study, the Rural Development Strategy, keep the improvement of sanitary situation as an important element contributing to the improvement of the environment, this orientation must be considered.

The other policies contributing to the rural development are currently being executed through the Decennial Program for the Development of Education (DPDE) 2003-2013 and the Health Development Plan (HDP) 2005-2009. The national policy document in terms of Local and Community Development has been valid but is willing to be adopted by government.

2.5.4 Special Program of the President of the Republic

(1) Outlines

The Special Program of the President of the Republic was established to implement the “Poverty Reduction Strategy” and to raise the rural population’s standards of living. It is executed with the funds from the initiative for the reduction of debts from Heavily Indebted Poor Countries (HIPC). 17.5 billions CFA was invested in the first phase in 2001 and 2002, and for the second phase in 2003 and 2005 the amount invested was 30 billions. It mainly consisted of the construction of infrastructures in 2005; the following actions have already been realized in the whole country:

- Construction of 713 classrooms
- Construction of 1681 health centers
- 31 animal health centers
- 105 pastoral wells
- 219 modern wells
- Construction of 121 small scale dams, reservoirs, hydro-agricultural perimeters
- 163 deep wells
- 1588 agricultural equipments (mills, thresher, motor pump, tractors, etc.)
- 52 electric powered localities

Among these realizations, the “reservoirs” composite which has the objective implementing agricultural land, the extension of irrigated zones, and the improvement of food autonomy, is one of the greatest composites of the SPPR.

(2)The executive unit

(a) The national level

① Deciding organ

The national committee for piloting the program is composed of the National Coordinator of the program, Advisers of the President of the Republic, region executive managers and the representatives of technical ministries concerned by the program. All the strategic orientations are taken by the National Piloting Committee, notably in terms of the approval of projects and programs established and submitted by regions, and that of reorientation of the program.

② Function of whole coordination

The SPPR comprises a national coordinator who is the main presenter of the program. This coordination function is devolved to the deputy Director of the President of the Republic Cabinet. In addition to the national coordinator, an Adviser of the Republic President focus of the Special Program ensures the coordination and the regular follow up of activities of the SPPR in the region of his responsibility.

③ The unit of control and monitoring of activities

A team composed of an adviser from the Presidency and technical ministries representatives ensured the follow up and the periodic control of execution on the field. For instance, concerning the composite “100 dams”, the directorate of Installations and Rural Agricultural Equipments (DIERA) of the Ministry of Agriculture played the main role and hold on the monitoring and control of works.

(b) At region level

Some piloting committees driven by region governors comprised of the regions technical managers and commander in chief of the department were set up. Each committee presents the summary of projects established at department level as a project for region program to the National Committee, attributes the contracts and provides some missions for the monitor and control of actions. The regions water resources, civil engineering and urbanism departments, etc are included in these committees, and bring their advising supports to population in their scopes of specialization.

(c) At the department level

Some department piloting committees driven the commander in chief of department comprised of technical services and a customary authority were set up. Each department committee established a program project submitted to the Region piloting committee.

(3)Finance

The Ministry of Community Development is the administrative supervision of the SPPR and the Minister of Community Development is the ruler. A focus is designated in the Ministry of Economy and Finance for the treatment of financial operations from the regions.

The settlement of almost the whole contracts, start cash advance and deductions, is done in Niamey by the general account department. At the beginning the management of financial resources was decentralized. So each region payment department ensured the settlement of local contracts: payment of cash advance (30%) at the beginning of works, and different deductions established by the competent technical services according to the evolution of works.

It gets into its third phase with the realization of new activities while executing those started during the first and second phases. Concerning new activities, these are land restoration and protection, the transformation of local health centers into Integrated Health Centers (IHC), surgical operations, micro credit and “milking cattle” operation. The last two activities are allocated to Female associations only. The Special Program of the President of the Republic (SPPR) evaluation reports evidenced progress accomplished in the way to meet the objective of poverty reduction. Concerning the implementation of sectorial policies, the priority given to sectors notably those of health, education, rural development and infrastructures, the interventions of different development partners and the execution of different section of the Special Program of the President of the Republic (SPPR) have permitted to equip particularly the rural zones of basic socioeconomic infrastructures.

2.6 Ministries concerned by the rural development

2.6.1 Ministries concerned by the rural development

The government of Niger actually comprises in addition to the Republic Presidency and the Prime Minister Cabinet, 32 ministries among which five(5) ministries in charge of rural development and two associated (2) ministries compose the International Piloting Committee of the RDS. The two (2) associated ministries are the ministry of Trade, Industry and Normalization (MTIN) and the Ministry of Economy and Finances (ME/F). The five (5) ministries in charge of the rural sector are:

- The Ministry of Territory Arrangement and Community Development (MTA/CD)
- The Ministry of Agricultural Development (MAD)
- The Ministry of Water Resources (MWR)
- The Ministry of Environment and Fight Against Desertification (ME/FAD)
- The Ministry of Livestock and Animal Industries (MLAI)

This study therefore considers these five (5) ministries as the ministries in relation with the villages' development. In addition to these ministries there are other structures attached to the Prime Minister's Cabinet who plays an important role in the rural development, these are:

- High Commissariat of Kandaji Dam
- Executive Secretariat of National Council of Environment for a Sustainable Development (ES/NCESD)
- Food Crisis Unit
- Unit of Precocious Alert and Disaster Management (UPA/DM)

2.6.2 Budget

The budget of the Ministry of Agriculture is presented in table 2.6(1), for 2006 year. The investments part includes the funds of the national and the financial contribution of the contributing investors for the whole sector projects.

Table 2.6 (1) Budget of the Ministry of agriculture

Year	Total budget	Investments	Transfers (subventions)	Functionality	Salaries
2006	39,329,446,000	34,671,007,000	1,605,863,000	1,478,970,000	1,373,606,000

(Unit: FCFA)

2.6.3 Attributions

(1) Ministry of Territory Arrangement and Community Development (MTA/CD)

The Ministry of Territory Arrangement and Community Development was created in November 2002, reorganizing many directions of the older Ministries of Plan, Economy and Finances therefore that of Equipment and Territory Arrangement. These attributions are: (a) The establishment and

the implementation of National Policy for Territory Arrangement, (b) The establishment and the application of regulation in terms of Territory Arrangement, (c) The establishment and the implementation of development strategies, programs and projects in terms of Territory Arrangement and (d) The establishment and the implementation of the National Policy for community Development. Its role consists to establish all over the country a synergy between the Territory Arrangement and the community development. These attributions concretely result in:

- The mitigation of inter and intra regions disparities
- The harmonic settlement of population over the national space
- The restructuring of the urban frame
- The reduction of rural migration
- The opening up of the country
- The planning of African sub regions
- The struggle against poverty
- The population essential needs coverage
- The management of land resources
- The preservation of environment and natural factors of production
- The balance between natural resources and population settlement
- Optimization of energetic policy
- The application of orientations in the National Scheme for Territory Arrangement by the implementation of sectorial, regions, zones schemes, directing schemes for planning, territory management and land property development

(2) The Ministry of Agricultural Development (MAD)

Since independence in 1960, the competent ministry of agricultural development has experienced the following restructuring and changes in noun: Ministry of Agriculture, Water and Forests → Ministry of Rural Economy → Ministry of Rural Development → Ministry of Agriculture and Environment → Ministry of Agriculture and Live stock Raising → Ministry of Agricultural Development. The present Ministry of Agricultural Development was created in February 2005; it has the mission of establishing, implementing and executing the monitoring of the national policy in terms of agricultural development. Its concrete attributions are as follows:

- The conception and implementation of policies and strategies in terms of agriculture and the monitoring of agricultural organizations particularly the contribution to the implementation of the Rural Development Strategy (RDS)
- The establishment, implementation, monitoring and evaluation of projects and programs for agricultural development, of agricultural organization and supervision
- Establishment and implementation of agricultural extension programs
- Establishment and implementation of programs for animation, training, information and communication, supervision and support to agricultural area
- Establishment, application and control of rules and regulations in terms of agriculture, rural cadastre and organization of agricultural area
- Establishment and the implementation of regulation governing the cooperative movement
- Establishment and the implementation of food security policy in relation with other concerned ministerial departments and structures
- Establishment and the implementation of programs for the improvement of agricultural production systems and crop protection
- Realization and execution of agronomic research programs
- Mastering of contacting authority and works of infrastructures and rural agricultural tools
- Technical support on public institutions, state companies and companies of mixed economy in its area of competence
- Management of relations with national organisms intervening in its field of competency

- Relations with international organizations and institutions intervening in its field of competency in relation with the Ministry of international Affairs, Cooperation and African Integration
- Contributing to the implementation of national strategy for micro finance

(3) The Ministry of Environment and Fight Against Desertification (ME/FAD)

The Ministry of Environment and Fight Against Desertification is the result of the split of the Ministry of Water Resources, Environment and Fight Against Desertification in June 2007. It is in charge of the establishment, the implementation and the monitoring of the national policy in terms of environment and Fight against desertification. Its concrete missions are:

- The definition and the implementation of policies and strategies in terms of adjustment and management of natural resources, preservation of the environment and fight against desertification
- The establishment and the application of legislative rules and regulations in terms of forests, fauna, fishing, fight against desertification and preservation of the environment
- the establishment , implementation monitoring and evaluation of projects and programs for the fight against desertification and preservation of the environment

(4) The Ministry of Water Resources (MWR)

The Ministry of Water Resources is the result of the split of the Ministry of Water Resources, Environment and Fight Against Desertification in June 2007. It is in charge of the establishment, the implementation and the monitoring of the national policy in terms of water resources. Its reel missions are:

- The definition and implementation of policies and strategies in the scope of water resources and arrangement
- The establishment of rules and regulations in terms of water resources
- The establishment, the implementation, the monitoring and evaluation of programs and projects of water resources development

(5) The Ministry of Livestock Raising and Animal Industries (MLAI)

The Ministry of Livestock Raising and Animal Industries follows the change in noun of the Ministry of animal resources in June 2007. It is in charge of the establishment, implementation and the monitoring of the national policy in terms of animal resources. Its reel missions are:

- The conception and the implementation of policies and strategies in terms of live stock raising
- The establishment, implementation, monitoring and evaluation of programs and projects of livestock development
- The zootechnics and veterinary research
- The improvement of animal production systems
- The establishment, application and control of regulations in terms of livestock raising
- The establishment and the application of regulations governing herder's organization
- The establishment and execution of support programs to herders
- The organization of the exploitation and the follow up of the management of pastoral water supply facilities
- The mastering of works, equipments and infrastructures in terms of live stock raising
- The control of biological product for veterinary use
- Mastering and protection of the stock
- The promotion of the production, processing and marketing of animal products in relation with the concerned Ministries
- Technical support on public institutions, state companies and companies of mixed economy in its area of competence

- relations with international organizations and institutions intervening in its field of competency in relation with the Ministry of international Affairs, Cooperation and African Integration

2.6.4 Directorates concerned by the rural development

The ministries systems of organization joining the rural development all experience reorganization during 2007 year except for the Ministry of Territory Arrangement and Community Development. At this present stage, the situation of these reorganizations defining at the central level of ministries, the directorates in charge of extension missions related to the rural development is as follows:

- Ministry of Agricultural Development: 2 General Directions (Agriculture and Rural Engineering) and 14 National Directions.
- Ministry of Environment and Fight Against Desertification: General Direction of Environment and waters and forests and its seven (7) national directions
- Ministry of Water Resources: Direction of Rural water resources, Direction of Urban and Semi Urban Water Resources and Direction of Water Resources
- Ministry of Livestock Raising and Animal industries: Text on examination by Ministers meeting.

At the devolved level, regions and department directions agents of these different ministries execute the extension missions on field. Of all these Ministries only that of agriculture comprises in its unit, representations closer to villagers that is the agricultural districts occupied by the heads of districts who are the extension agents.

2.6.5 Human resources for the rural development

Table 2.6 (2) to 2.6 (6) present the situation of workers in the ministries struggling for the rural development. In terms of human resources, a category of the ministries workers is as follows: senior executives (category A), middle manager (category B), technical agents (category C), support technician (category D) and the auxiliary.

The middle managers (B1, B2) and the technical agents (C1) are responsible extension in rural area. Here is for each of the ministries in charge of the rural development, the total number of middle managers (B1, B2), and that of technical agents (C1) with the percentage of workers in relation to the total number of workers of all categories:

- Ministry of Territory Arrangement and Community Development: 129 workers (39.4 %)
- Ministry of Agriculture: 345 workers (45.8 %)
- Ministry of Environment and Fight against Desertification: 238 workers (26.2%)
- Ministry of Water Resources: 156 workers (41.2 %)
- Ministry livestock Raising and Animal Industries: 547 workers (48.4 %))

The total number of workers in direct relation with the extension at the basis in the 5 ministries is 1415 workers. But the percentage of extension workers varies from one ministry to another. That is why this percentage is of 48.4 % for the Ministry of Livestock Raising and Animal Industries, 45.8 % for the Ministry of Agricultural Development, 42.1 % for the Ministry of Water Resources, 39.4 % for the Ministry of Territory Arrangement and Community Development and 26.6 % for the Ministry of Environment and Fight Against Desertification, but the ministry that has the large number of extension workers at the basis is the Ministry of Livestock Raising and Animal Industries.

Table 2.6 (2) Situation of workers from the Ministry of Territory Arrangement and Community Development

Categories Field of action (specialty)	A1	A2	A3	B1	B2	C1	C2	D1	D2	TOTAL
General Administration	27	14	-	-	1	2	-	2	-	46
Human Promotion	12	52	-	89	4	12	-	2	-	171
Statistics/information processing	2	2	-	8	-	11	-	3	-	26
Other Contributions (Taxes)	-	-	52	-	-	-	-	-	-	52
Secretariat	-	-	-	-	2	-	1	15	1	19
Treasure	2	-	-	-	-	-	-	-	-	2
Teaching	-	7	-	-	-	-	-	-	-	7
Information	-	1	-	-	-	-	-	-	-	1
Topography and cadastre	3	-	-	-	-	-	-	-	-	3
Total	46	76	52	97	7	25	1	22	1	327

Source : Direction of Administrative and Financial Affairs, MTA/CD Dec 2005

Table 2.6 (3) Situation of workers of the Ministry of Agricultural Development

Categories Structures	A1	A2	A3	B1	B2	C1	C2	D1	D2	Auxiliary	Total
Central Portion	63	16	10	18	12	11	-	-	-	65	195
DRE/NI Niamey	1	-	3	5	-	7	-	1	-	14	31
DRE/MI Maradi	8	3	10	30	1	34	-	3	-	24	113
DRE/ZR Zinder	7	3	11	26	1	27	-	-	-	27	102
DRE/DA Diffa	3	2	2	10	1	5	-	-	2	3	28
DRE/AZ Agadez	4	-	-	8	2	7	-	-	1	13	35
DRE/TA Tahoua	4	2	6	32	1	25	-	4	-	24	98
DRE/DO Dosso	8	3	4	26	2	13	-	-	-	21	77
DRE/TI Tillabéry	8	2	5	24	5	12	-	-	-	18	74
Training	-	-	-	-	-	-	-	-	-	-	-
Exceptional position	-	-	-	-	-	-	-	-	-	-	-
Total	106	31	51	179	25	141	-	8	3	209	753

Source : Direction of Administrative and Financial Affairs, MTA/CD Dec 2005

Table 2.6 (4) Situation of workers of the Ministry of Environment and Fight Against Desertification

Categories Structures	A1	A2	A3	B1	B2	C1	C2	D1	D2	Auxiliary	Total
Central portion	43	12	4	26	3	10	-	-	30	38	168
DRE/NI Niamey	2	2	-	10	1	7	-	-	16	21	59
DRE/MI Maradi	5	5	1	24	2	19	1	-	19	18	104
DRE/ZR Zinder	3	6	2	21	1	11	-	-	26	13	83
DRE/DA Diffa	1	2	-	5	1	2	-	-	16	10	37
DRE/AZ Agadez	1	2	-	6	-	2	-	-	20	7	38
DRE/TA Tahoua	2	5	2	31	-	21	-	-	32	25	118
DRE/DO Dosso	3	5	1	31	-	10	-	-	22	21	94
DRE/TI Tillabéry	5	3	5	25	2	23	-	-	31	28	123
Training		4	2	20	1	3	-	-	-	-	31
Exceptional position		5	-	13	3	1	-	-	2	-	54
Total		51	17	212	15	11	1	-	224	182	909

Source : Direction of studies and planning, Ministry of Water Resources, Environment and Fight Against Desertification 2005

Table 2.6 (5) Situation of the workers of the Ministry of Water Resources

Categories		A1	A2	A3	B1	B2	C1	C2	D1	D2	Auxiliary	Total
Structures												
DRH/NI	Niamey	65	10	11	25	15	3	2	1	5	34	171
DRH/MI	Maradi	2		1	9						3	15
DRH/ZR	Zinder	4	1	1	7			1			3	17
DRH/DA	Diffa	3	1	1	21	1	1	2		1	9	39
DRH/AZ	Agadez	7	1	1	21	1	2	1	3		8	45
DRH/TA	Tahoua	2			19		1			1	4	27
DRH/DO	Dosso	2	2	1	12					1	5	23
DRH/TI	Tillabéry	3	2	3	19	1			2	2	7	39
Training		-	-	-	-	-	-	-	-	-	-	-
Exceptional position		-	-	-	-	-	-	-	-	-	-	-
Total		88	18	19	131	18	7	6	6	10	73	376

Source : : Direction of studies and planning, Ministry of Water Resources, Environment and Fight Against Desertification 2005

Table 2.6 (6) Situation of workers of the Ministry of Livestock raising and Animal Industries

Categories Structures		A1	A2	A3	B1	B2	C1	D2	Auxiliaries	Total
Central portion		43	8	2	62	7	34	7	46	209
DRE/NI	Niamey	8	2	-	10	3	23	1	52	99
DRE/MI	Maradi	7	2	-	44	6	27	8	39	133
DRE/ZR	Zinder	5	3	-	19	12	43	8	70	160
DRE/DA	Diffa	2	4	1	13	-	17	1	39	77
DRE/AZ	Agadez	1	-		10	1	5	1	10	28
DRE/TA	Tahoua	8	2	-	27	21	31	4	73	166
DRE/DO	Dosso	5	3	1	35	3	28	11	34	120
DRE/TI	Tillabéry	4	3	-	31	2	33	6	60	139
Total		83	27	4	251	55	241	47	423	1 130

Source : Direction of Administrative and Financial Affairs, Ministry of Animal Resources 2005

Some problems common to the five (5) ministries are:

- The insufficiency of human resources in number and in quality
- The insufficiency of budget in terms of investments as well as the functionality to ensure the supervision missions in the rural area
- The deterioration of equipment and vehicles, the amortization of materials
- The complexity of procedure for partnership actions, and the lack of synergy.

In 2007, 3,000 workers were recruited and shared by ministries and the prolongation of the retiring age to 60 years old. In 2008, the recruitments were undertaken but at this time individually ministry. This has increased the number of human resources for all the ministries.

2.7 The actual tendency of financial donors and NGOs in the rural sector

2.7.1 The actual tendency of financial donors

(1) Main external financial donors

The main external financial donor's assistance concerning the rural development is as follow: In the rural development sector, the external financial assistance is 426,676 million for the period of 2001 to 2006. There is an increase every year from 2001 to 2004. The difference between the financial assistance of 2001 and 2004 is 34,800 millions. This is due to the fact that the World Bank and the European Union (EU) who are the big donors increased their financial assistance. They

are followed by: UNICEF, JAPAN and the ADB. The volume of these financial assistances reached 85,860 millions in 2004 and kept the level of 80,000 millions the next year after 2004.

Table 2.7 (1) External assistances benefiting to the Rural development

	2001	2002	2003	2004	2005	2006	01-06	%
World Bank	6,418	6,023	12,639	23,779	18,883	21,883	89,626	21.0
UNICEF	6,133	6,620	6,801	7,524	15,317	15,403	57,797	13.5
EU	3,604	3,911	3,427	8,935	2,801	9,055	31,732	7.4
Japan	5,402	4,750	3,867	5,583	4,896	7,013	31,511	7.4
ADB	3,796	5,158	4,931	5,839	7,070	4,069	30,863	7.2
Germany	3,835	4,092	4,026	4,756	4,756	6,068	27,532	6.5
AFD	1,915	4,306	2,994	4,848	3,741	4,672	22,475	5.3
Swaziland	3,414	3,360	3,559	3,523	3,601	3,110	20,568	4.8
UNDP	3,667	2,715	3,059	2,089	2,770	3,543	17,844	4.2
FAO	3,669	3,464	2,911	2,636	2,646	2,500	17,827	4.2
WADB	289	2,198	1,863	4,282	3,153	510	12,296	2.9
Denmark	1,640	1,640	1,640	1,640	1,640	1,640	9,839	2.3
WFP	1,284	1,212	1,019	1,433	1,685	2,464	9,098	2.1
Others (United Nations)	1,835	1,732	1,456	1,318	1,323	1,250	8,913	2.1
Luxembourg	1,312	1,312	1,312	1,312	1,312	1,312	7,871	1.8
United States	1,468	1,386	1,165	1,055	1,058	1,000	7,132	1.7
Belgium	472	920	1,142	1,128	1,348	1,675	6,684	1.6
IFAD	1,408	1,636	1,138	725	197		5,105	1.2
SCAC (France)	837	786	810	941	763		4,137	1.0
Norway	656	656	656	656	656	656	3,936	0.9
OPEC		383	429	1,492	809	48	3,162	0.7
ABEDA			107	349	47	131	634	0.1
IsDB				19	77		96	0.0
Total	53,054	58,260	60,951	85,860	80,549	80,548	426,676	100.0

Source: Meeting of RDS Financial Donors (6 June 2007)

(2) Tendency of assistance modes and activities of main financial donors

Before, the financial donors support projects lonely. But assistance modes of main financial donors in the scope of rural development have changed now to support the sectorial programs of development. This tendency was fund after the adoption of RDS action plan in 2007. Each new project must conform to 1 or many of the fourteen programs of the RDS. Consultation meetings have been organized with the financial donors in the frame of the RDS; moreover, it has been planned some financial donors meeting which are hold for each program. To support each program of the RDS, The World Bank, the IMF, the UNDP, Belgium, Switzerland, Germany and France bring their financial assistance.

These support brought for rural development is enlarged to other sectors like education and hygiene. The meeting of financial donors is for each national sectorial development plan (the decennial program for education development, health development plan).

When analyzing the actual tendency of the financial donor's activities for the rural development, there is much assistance in the scopes cited above, particularly for the reinforcement of capacities of communities established in 2004. Also following the food crisis of 2005, many financial donors are undertaking activities in the scope of food security.

Table 2.7 (2) Definition of intervention scopes by project or by financial donors

Scopes	Content of the scope	Noun of the Project/Program or Financial donors
Capacities reinforcement	Reinforcement of rural development actors capacities (peasant organization, communities)	Practically all the financial donors
Decentralization	Support to communities through investment and training the local authority, establishment of communes development plans, and providing communities with local fund for investment	CTB, Switzerland cooperation, PCLCP, PAC, LUCOP, PADL Maradi, PADL Gaya, SNV
Food security	Cereal banks, extension of agricultural and animal production techniques. Irrigation, support in agricultural input and zootechnics.	Inputs Project, PSSA, EU, (CRS), (Africare), CTB, CADELT, PIP II, PSEAU, PADL Diffa, PADAZ
Management of natural resources and or environment protection	Fight against desertification, management of agro-sylvo-pastoral area, tree plantation and land restoration	FICOD, PADL Gaya, PAC, Project Keita, PADL Diffa, PADAZ
Improvement of living condition	Health, nutrition, hygiene, education and literacy	UNICEF, (Care International), (Plan International), (Africare), (Assistance and Action), CECI, (HKI)
Gender	Support to female associations	(Care International), CTB
Micro Finance	Loan, saving, Warrantage	(AQUADEV), (Care International), Project Keita, IFAD , (Africare), Inputs Project, Switzerland, World Bank
Village and pastoral Water supply facilities	Construction, Rehabilitation and maintenance of wells, deep wells and modern wells	Switzerland, EU, World Bank, CTB, Denmark, PADL Diffa

() international NGO

So, the results of opinion exchanges with the main financial donors which execute activities in the scope of “Village Development” through villagers initiative and the “valorization of dams” related to AP is presented in table on the next page. The investigation in 2006 conducted towards financial backers gave results for 21 programs and projects. The content of the investigation consisted of a general view of the activities, the administrative supervision of programs and projects, the execution period; the activity area, the number of sites, the total cost of the project and the organization of study trips. By the results of the investigation, there are more projects or program executed in Tillabery region or with support activities of promoting villagers participation: Planning through villager’s initiative and reinforcement of village organization.

Table 2.7 (3) Projects and programs with whom the study exchanged ideas

N O	Noun of the Project	Backers	Detailed activities	Supervi sory Ministry	Time and Period	NIM	DOS	IT	TA	MA	ZIN	DIE	AGZ	Number of concerned sites	Project Cost.	Visit on Field
1	PSEAU	AFD	Support to live stock raising and urban horticulture	MAR+MA	2003-2007	x								8	1million 500 thousands euro	
2	FICOD	KFW (Germany)	GRN participative	MA	2005 – 2007			x						About 140 terroirs	2million 100 thousands euro	
3	PSSA	FAO	Improvement of agricultural techniques, Irrigation, processing, fish farming, live stock raising etc.	MA	1995 – 2009 (forecasting)		x	x		x	x			-	1,700,000 US \$	x
4	PAC	World Bank	Planning at community level and cluster group	MA	2004 – 2007, 2nd phase on the way	x	x	x	x	x	x	x	x	All communities for 4 years.	43.83 millions US \$	x
5	PIP II	World Bank	Small scale private irrigation and reinforcement of peasant organizations capacities	MA	2002-2007	x	x	x	x	x	x	x	x	22200 cooperative members de 36 local executive committee	44 millions US\$	x
6	CADELT	Switzerland Cooperation	Reservoirs	MA	2001 – 2006			x						-	1 billions 690millions FCFA	x
7	PROPAN	AFD	Reinforcement of cooperatives capacities	MA	2003 – 2007	x			x	x	x		x	10 Peasant Organization	1billion 330millions FCFA	
8	Input Project	Belgium FAO	Reinforcement of peasant autonomy	MA	2004 – 2007 New phase (2008-2011) on preparation	x	x	x	x	x	x	x	x	1847 organizations	3,046,000\$U S	x
9	ICRISAT	-	Agricultural research	MA										-	-	x
10	Water mobilization of Maradi	ADB	Diagnostic and Identification of Sites	MA	2005-2006 (16months)					x				103 sites for the study and 36 sites for detailed study	759millions FCFA	
11	Water mobilization of Tahoua	ADB	Adjustment of hydro agricultural infrastructures and their valorization, Construction of social infrastructures	MA	2001 – 2006				x					5 sites	261 millions FCFA	
12	Project of Water valorization of Dosso and Tillaberi	ADB	Construction and maintenance of dams, construction of pastoral wells, support to peasant organizations	MA	2007-2012		x	x						Dams : 12 sites to be constructed + 10 sites to be arranged	11 800 Millio ns CFA	

N O	Noun of the Project	Backers	Detailed activities	Supervi sory Ministry	Time and Period	NIM	DOS	TI	TA	MA	ZIN	DIF	AGZ	Number of concerned sites	Project Cost.	Visit on Field
13	PADAZ	ADB	Construction of dams, wells, cereal Banks, Construction of agricultural roads, reinforcement of rural organizations capacities	MA	2003–2009							x		-	5198247 millions FCFA	
14	PCLCP	UNDP, FENU, Belgium Fund for survival	Participatory Planning by the VDC and by community	MEF	2004-2007			x		x	x	x		23 communities	-	x
15	Support to Crisis Prevention and local development	UNDP	Prevention of Crisis	High control of peace Restoration	Not sure									Not sure		
16	LUCOP	GTZ, KFW, DED	Participatory Planning and natural resources management by community	MEF	2004-2016			x	x					8 communities	-	
17	PCD	European Union	Participatory Planning at cluster group and communities levels	MTA/CD	2003-2007		x	x						All villages in 8 communities	7.15millions euro	X
18	ASAPI	EU	Establishment and Execution of Development Plan by peasant organizations (by requests)	MA	2001-2008				x		x			Zinder and Tahoua Regions (Departments of Madaoua and Bouza)	11 501.8 millions FCFA	
19	PADL Gaya	Switzerland Cooperation	Participatory Planning at village, cluster group and community levels	MTA/C D	2000–2006		x							240 villages	1 billionsds722 millions FCFA	X
20	PADL Maradi	Switzerland Cooperation	Participatory Planning at village, cluster group and community	MTA/C D	1996–					x				-	1 billions 539millions FCFA	
21	School for all	JICA	Reinforcement of COGES capacities	MEB1/A	2001–	x	x	x	x	x	x	x	x	9000 schools of Niger	-	x

2.7.2 Actual tendency of NGOs

The number of NGOs operating in the country was 80 in 1992. It passed to 366 in 2000 and to 783 in 2007 (Niger NGOs index, 2007 Edition). The percentage of local NGOs in relation to all NGOs in Niger is of 86.5 percent and that of international is of 13.5 percent. It shows that there are many local NGOs. The number of NGOs joining the area of activities is presented in the following table. The main NGOs interventions areas are the “integrated development” (248 organizations: 31.7 percent). The areas in which the local NGOs intervene more are in order: the integrated village development, rural development and social development. For the international NGOs their main area of intervention are in order: The rural development, the integrated village development and health/hygiene.

Table 2.7 (4) Number of NGOs by intervention area

Intervention area	National NGOs	International NGOs	Total	Percentage
Integrated development	224	24	248	31.7%
Social	87	27	114	14.6%
Rural development	99	13	112	14.3%
Environment	57	2	59	7.5%
Education/Training	53	6	59	7.5%
Health/Hygiene	31	20	51	6.5%
Female promotion	22	1	23	2.9%
Live stock raising	13	1	14	1.8%
Water resources	10	2	12	1.5%
Saving-Loan/enterprises promotion	11	1	12	1.5%
Agriculture	4	1	5	0.6%
Art craft/Culture	5	0	5	0.6%
Humanitarian	2	2	4	0.5%
Democracy/good Governance	3	0	3	0.4%
Children	3	0	3	0.4%
Youth	2	0	2	0.3%
Energy	1	0	1	0.1%
Transports	0	1	1	0.1%
Others	50	5	55	7.0%
Total	677	106	783	100.0%

Source: Niger Republic MDC-DONG/AD. List of NGOs accepted in Niger (2007).

The first international NGOs (CARE INTERNATIONAL, AFRICARE, SDSA, SOS SAHEL INTERNATIONAL, WORLD VISION, AQUADEV and AFRIQUE VERTE) installed, have executed projects in Africa; Some of them are polyvalent and supported by the bilateral cooperation, others are independent. However, in general many NGOs look for support from financial donors.

Some local NGOs disappear at the end of project, but others become performing operators. The local NGOs are placed under the administrative supervision of the Ministry of Territory Arrangement and Community Development after the deliverance of their approval by the Ministry of Interior.

The results of opinion exchange with the NGOs executing activities in the scope of “village’s development” through villager’s initiative and the “valorization of dams” related to AP are presented in the table on the next page. The investigation concerned a total of 21 organizations of which 9 International NGOs and 12 local NGOs. The local NGOs execute activities with the support of financial donors such as France, World Bank, EU and ADB. The local NGOs support the implementation of projects and programs at the local level.

Table 2.7 (5) Activities of NGOs in the scope of rural development

N o	Noun of the structure	Nationality	Scope of Intervention											Main activities	Main intervened projects	Intervention area							
			Dev.Rural	Food safety	Stock raising	natural resources	Education	Health	Decentralization	Capacity Develop.	Gender	Micro Finance	Other			NIM	DOS	TI	TA	MA	ZIN	DIF	AGZ
1	AQUADEV	Belgium	x	x	x	x				x		x		Microfinance tontine type	Projects Microfinance	x	x	x	x	x	x		
2	Care International	Belgium	x	x		x		x	X	x	x	x		Micro finance, female association, rural development	Important Projects in micro Finance								
3	CECI	Canada					x							Literacy	PRODINF	x	x	x	x	x	x	x	x
4	Africare	American	x			x				x		x		Improvement of agricultural production, Environment, Microfinance, health	Projects USAID (ISAN,BUILDIT,NED)		x	x			x		x
5	SNV	Switzerland	x							x				Decentralization support NGO									
6	Assistance and Action	France	x				x			x				Support to the participatory management of school	AFD		x				x		
7	Plan	Internation al	x				x	x		x			IGA	Training in the scopes of health, IGA, Reinforcement of organizations capacities	Project plan		x	x					
8	CRS	American	x	x			x	x		x		x		Support to village development committee, Support of agricultural techniques, education	Project CRS,USAID		x					x	
9	Doctors without border	France						x						Health, Nutrition, Reproduction health	European Union				x				
10	Democracy 2000	Niger	x				x		X	x				Community planning reinforcement of rural organization capacities	FCIL, PADEL, PADL, PAC, EPT		x		x			x	
11	SOS Civism	Niger	x							x				Support to decentralization									
12	ONEN	Niger	x							x				Support the participatory management of school	School for all, CONCERN, SOUTEBA	x	x	x	x		x		
13	APOR	Niger	x	x		x	x			x		x		Support to decentralization, terroir management	LUCOP, PAC, PCLCP, USAID,	x	x	x					
14	ADA	Niger	x	x			x	x		x	x	x		Rural development around water resources, Support to female associations	Projects of an NGO from Germany	x		x					
15	ABC	Niger	x							x				Support to village/community	PDLT, PAC, AZAPI,		x	x	x	x	x		

N o	Noun of the structure	Nationality	Scope of Intervention										Main activities	Main intervened projects	Intervention area										
			Dev.Rural	Food safety	Stock raising	natural resources	Education	Health	Decentralization	Capacity Develop.	Gender	Micro Finance			Other	NIM	DOS	TI	TA	MA	ZIN	DIF	AGZ		
	Ecology												planning/Support to agricultural techniques	to	PCD, PADL, PMET										
16	Karkara	Niger	x	x	x	x				x			Rural development, Support to decentralization, Reinforcement of capacities of sylvo-agro-pastoral organizations		PADL, PAPAK(Denmark), PSSP(AFD), PAGREN	x	x	x		x	x				
17	ANBEF	Niger	x					x		x			Awareness in the scope of health and hygiene		UNESCO, World Bank, PNUD etc.	x	x	x	x	x	x	x	x		
18	VIE	Niger	x				x			x			literacy		Project for literacy, Switzerland Cooperation, Plan Niger, Oxfam		x	x		x					
19	KOKARI	Niger	x									x	Microfinance		ADB					x	x	x			
20	ECO 21	Niger	x	x	x	x				x	x	x	Inputs Bank, Warantage		FAO, ADB	x	x	x	x	x	x	x	x	x	
21	GOMNI	Niger	x	x		x	x			x	x		Management of natural resources, Literacy		CCA, CECI-PRODENF					x					