



**Improving food security in West Africa through revitalizing irrigation systems
performance and productivity and promotion of agricultural water and small-scale
irrigation**

WAIPRO

Work Plan

October 2009 - September 2010

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Version 11 September 2009

1. Introduction and justification

This project aims to improve the performance and productivity of selected irrigation schemes through identifying and implementing targeted interventions in two West African countries, namely Burkina Faso and Niger. The interventions will be implemented through a consortium of relevant institutions involving National Agricultural Research and Extension Systems, irrigation management institutions, and NGOs with expertise capable of revitalizing existing irrigation systems under the leadership and support of the Comité Inter-Etats de Lutte contre la Sécheresse au Sahel (CILSS) and the International Water Management Institute (IWMI).

Plans will be developed and implemented in Burkina Faso and Niger, with the intention that the lessons learned are up-scaled and out-scaled both within the project countries and throughout the West Africa region. It will help these countries to address the growing food insecurity and poverty crises by systematically identifying impediments to irrigated agricultural productivity and efficiency of irrigated crops (mainly rice).

The project aims to achieve of four interconnected objectives. These are:

Objective 1: Diagnostic activities involving scoping study, participatory analysis of constraints and opportunities of existing irrigation systems.

Objective 2: Based on the insights obtained from **Activity 1**, develop intervention plans, and implement the same in pilot irrigation systems in Burkina Faso and Niger.

Objective 3: Capacity building, synthesis, dissemination and communication of the lessons learned and the experiences gained from the pilot implementation.

Objective 4: Promotion of agricultural water and small-scale irrigation in the Sahel

More intervention areas will be defined following participatory diagnosis of constraints and opportunities but the following **priority interventions** are already identified through engagement with partners:

- Improving water conveyance and distribution systems and in-field water management
- Strengthening Water Users Associations
- Enhancing linkages with support services

It will incorporate a strong element of ensuring solutions are environmentally and economically sustainable. The project's success will be built upon the strong leadership of the Comité Inter-Etats de Lutte contre la Sécheresse au Sahel (CILSS), supported by the International Water Management Institute (IWMI) in collaboration with CORAF stakeholders: Institut National de Recherche Agricole du Niger (INRAN), and the Institut de l'Environnement et de Recherches Agricoles (INERA) in Burkina Faso.

The project is carried out according to the letter of execution IL 11 between CILSS and the USAID, wherein CILSS is responsible vis-a-vis USAID for the attainment of the objectives of the program. , CILSS will ensure the technical and financial coordination and monitoring of the project.

Implementation of this project will be done by the Direction des Aménagements et du Développement de l'Irrigation (DADI) in Burkina Faso and the Direction Générale du Génie Rural (DGGR) and the Office National des Aménagements Hydro-Agricoles (ONAHA) in Niger.

Dissemination will be carried out by the Association Régionale pour l'Irrigation et le Drainage (ARID) and the Réseau des Organisations Paysannes et des Producteurs Agricoles de l'Afrique de l'Ouest (ROPPA) through their national focal points and ECOWAS. IWMI will consult with the Africa Rice Center (WARDA) and IFDC regarding the use of best agronomic practices. Farmers will be full partners in the process. Given the gender imbalance of African smallholders, attention will be given to partnering with women farmers. Finally dissemination will also be facilitated thanks to the CILSS network and the strong links the Executive Secretariat of CILSS maintain with the National Departments of Agriculture or Irrigation through the CONACILSS

Project's vision

The project's vision is to enhance the capacity utilization of existing irrigation systems, increase irrigated crop yields, increase farmers' income, reduce farmers' vulnerability to droughts, reduce consumers' vulnerability to current food price hike, and enhance national governments foreign exchange reserve through boosting domestic rice production and sustain water management.

Thus, the project contributes to the Initiative to End Hunger in Africa (IEHA), specifically programmatic areas related to agricultural sector productivity and agricultural sector enabling environment.

The project will also contribute to the CILSS objective of promoting the development of small scale irrigation in the Sahel and in West Africa, focussing particularly on the two target countries (Burkina Faso and Niger) but with implications for all nine (9) CILSS member countries. Activities under Objective 4 will analyze the policies and programs on small scale irrigation in the two countries of the project in order to ensure that they are compatible with those of ECOWAS and UEMOA, as well as with the ECOWAS agricultural policy (ECOWAP). This analysis will be extended to the other seven (7) CILSS member countries. This set of activities will also enable the identification of priority small scale irrigation projects in the two target countries and the 7 other CILSS member countries in order to disseminate the best current water control practices including the results obtained from activities under objectives 1, 2 and 3, as there is a strong complementarity among activities under all 4 objectives. For example, the

agricultural farms targeted in activity A2 relate to the national agricultural production systems as well as the regional strategies for the development of water for agriculture, hence the need to ensure coherence of these national strategies with the regional strategies in order to support the countries in their small scale irrigation policies. The results obtained in the two target countries will be shared with the officials in charge of small scale irrigation policies throughout the nine (9) member countries.

2. Roles and responsibilities of partners

The project is based on real interventions in irrigation schemes in both Niger and Burkina Faso.

In order to ease the project implementation, it has been agreed during the inception workshop that the irrigation services (DADI and DGGR) will act as the focal points of the project under the supervision of CILSS and IWMI.

CILSS executive secretariat is in charge of the overall administration of the programme and more specifically it will support IWMI in the implementation of this program through:

- Ensuring the general coordination of the program
- Ensuring the implementation of small-scale irrigation development activities

IWMI is managing several aspects including:

- The technical control of the intervention
- Research components and capacity building for NARS
- Dissemination

Indicative detailed work plans are given by countries in Annex.

The national committees on irrigation and drainage (ANID and CNID B) are in charge of the organization of participatory diagnosis and the preparation of action plans. They will mobilize a multi-disciplinary team in the field and report to the national monitoring committee and to the steering committee.

Research institutes (INERA and INRAN) will be in charge of three research activities:

- An analysis of profitability and productivity through collaboration with IWMI.
- Participatory tests on fertilizers in rural areas in collaboration with IFDC in order to identify formulations and appropriate doses to the selected schemes,
- Participatory varietal tests in rural areas in collaboration with WARDA, in order to promote the dissemination of efficient rice varieties.

This research will be accompanied by training of the extension officers and technicians.

The two national irrigation agencies will be responsible for the project's financial transactions in their respective countries and will also support the implementation of the action plans in the field including a) organization of specific training programs b) implementation of action plans for improving water distribution (this will encompass a wide range of actions: the purchase and rehabilitation of equipments, works with private companies, NGO interventions, group work with farmers etc.).

3. Main objectives and activities:

Objective 1: Participatory analysis of constraints and opportunities of existing irrigation schemes

Activity 1.1. Participatory rapid diagnosis and action planning for irrigated agricultural systems

Start of activity: August, 2009

Completion of activity: November, 2009

Responsibility: IWMI, SNRA, National committees of Irrigation and Drainage

Deliverables/Outputs:

- Consolidated report of six diagnostic and action plans studies in the two countries
- Consolidated report of one diagnostic in Burkina Faso (Mogtédo scheme)

Progress so far:

Initial reconnaissance survey was done in Niger where 4 schemes were selected (Daiberi, Chetimri, Djirataoua, Galmi) and Burkina Faso (Mogtedo, Talembika, Karfguela)
Reports for some irrigation schemes are attached files presenting pre-diagnostics of these schemes

Activity 1.2: Performance benchmarking

Start of activity: September, 2009

Completion of activity: September 2010

Responsibility: IWMI, National Committees of Irrigation, ONAHA

Deliverable/Output:

- A working paper, which will be disseminated to partners

Progress so far:

Site selection completed. 4 sites were selected in Niger (Daiberi, Chetimari, Djirataoua, Galmi) and 3 sites in Burkina Faso (Mogtedo, Talembika, Karfguela)

Activity 1.3: Analysis of the productivity and profitability of irrigated rice and vegetables

Start of activity: September, 2009
Completion of activity: September 2010
Responsibility: IWMI, NARS

Deliverable/Output:

- Identification of interventions for improving performance and productivity of irrigated rice systems

Objective 2: Implementation of interventions to improve productivity and performance of irrigation schemes

Activity 2.1: Improving water conveyance and distribution and management at the plot level

Start date: September, 2009
Completion date: February, 2010
Responsibility: DGGR (Niger), DADI (Burkina Faso), IWMI

Deliverables:

It is difficult to estimate at this stage precisely the exact content of the works to be done. Only the participatory diagnosis will permit such precise evaluation and decision will be taken with farmers on the priorities.

The budget allocated to the works is around 121497 US \$ for Burkina Faso and 220 000 US\$ for Niger. These figures were calculated by technical services (DADI and DGGR).

- Total area that will benefit from the rehabilitation works is 1605 ha (1155 + 450).
- Number and length of canal to be repaired : depending on the diagnosis
- Number of beneficiary farmers : 490

Activity 2.2: Strengthening water users associations

Start date: November, 2009
Completion date: September 2010
Responsibility: IWMI, DADI, DGGR, ONAHA, CNID-B

Deliverables/Outputs:

- Detailed reports on training
- Number of WUAs to be strengthened: 6

Activity 2.3: Participatory on-farm fertilizer trials to refine recommendations

Start date: October 2009
Completion date: February 2010
Responsibility: IFDC, NARES

Deliverable/Output:

- Detailed report on best practices

Activity 2.4: Participatory variety adaptation-cum-demonstration trials

Start date: October 2009
Completion date: February 2010
Responsibility: NARES, WARDA

Deliverable/Output:

- Detailed report on best practices

Activity 2.5: Enhancing linkages with support services

Start date: September 2009
Completion date: November 2009
Responsibility: Irrigation committees, NARES, WARDA, IFDC

Deliverable/Output:

- Report on the diagnosis of agricultural report services

Objective 3: Capacity building, synthesis, and knowledge sharing

Activity 3.1 Enhancing linkages with support services

Start date: September, 2009
Completion date: July 2010
Responsibility: IWMI and Partners (NARS, National Committees of Irrigation)

Deliverables/Outputs:

- Training manuals, reports,
- 38 technicians trained:
 - 14 on PRDA methods
 - 8 on rice cultivation (adapted varieties)
 - 12 on fertilizers (adapted methods)
- 6 producers' organisations reinforced
- A total of 490 producers concerned
- Female attendance: 20 to 30 %

Activity 3.2: Dissemination, synthesis, dissemination and communication

Start date: September 2009

Completion date: September 2010

Responsibility: IWMI, ARID, ROPPA, ECOWAS, FAO

Deliverables/Outputs:

- Newsletter, policy dialogues, reports, website

Activity 3.3: Workshops

Inception workshop: 21-22 July, 2009

Mid-term workshop: February 2010

Synthesis workshop: September 2010

Responsibility: IWMI, CILSS

Deliverables:

- Workshop proceedings

Progress:

Inception workshop completed including site visit to Mogtédou

Objective 4 : Program coordination and Supporting the development of small scale irrigation in the Sahel

Objective 4 is made up of two distinct components:

- Objective 4.1, Program coordination, monitoring and evaluation
- Objective 4.2 Supporting the development of small scale irrigation in the Sahel

Objective 4.1 Ensure the general coordination of WAIPRO

Activity 4.1: Coordination of implementation, monitoring and evaluation of the project

Start Date 01 June 2009

Completion date:– 30 September 2010

Responsibility : CILSS – PRA Water control

Deliverables/Outputs

- A meeting on a methodological start up is held
- The contractual documents are elaborated and signed by the parties
- IWMI and the other partners are supported in the preparation of the plans of action and other documents
- IWMI and the other partners are supported in the implementation of the project
- The accounting documents are updated and regularly sent to USAID
- The reports on the activities and the results are regularly sent to USAID
- Two steering committees are held
- A meeting to explain the procedures is held (complementary to the inception meeting for accountants recruited by DADI and DGGR)
- An evaluation of the program is carried out
- Follow up field missions are conducted on the improvements aimed at by IWMI

Objective 4.2 Support the development of small scale irrigation in the Sahel

Objective 4.2 is further sub-divided into three (3) specific sub-objectives as follows:

Sub objective 4.2:1 Aligning the national strategies for investments in water control with the regional policies

Sub Activity 4.2.1: Inventory and policy analysis

- Make an inventory and analysis of policies and water control strategies and investment in the small scale irrigation sector in Niger, Burkina Faso and in the other (7) seven CILSS member countries and identify the coherence with the sub-regional policies and strategies (ECOWAP and PAU).
- organize a workshop that brings together officials from the small scale irrigation policy so as to inform them of the gaps observed and support them in decision making.

Start Date November 2009

Completion date:– March 2010

Responsibility : CILSS – PRA Water Control

Partners and direct beneficiaries: National irrigation Departments of Niger, Burkina Faso and the other seven (7) CILSS member countries

Outputs

- Document on analysis of the national investment strategies on water control in small scale irrigation and their coherence with the regional policies (ECOWAP, PAU, West Africa water Policy)
- Information on national policies in respect of gaps observed

Sub Objective 4.2.2: To review the PRADPIS Programme in order to incorporate the small-scale irrigation priority

Sub Activity 4.2 2: review programme and advocate for funding

List and document the priority programs on small scale irrigation in the countries of the Sahel
Carry out advocacy for their funding at the financing institutions

Start Date November 2009

Completion date:– April 2010

Responsability : CILSS – PRA Water control

Partners and direct beneficiaries: ARID, National irrigation Departments in Niger and Burkina Faso and the other (7) CILSS and ECOWAS member countries.

Deliverables/Outputs:

- Guide on the priorities of investments in small scale irrigation
- Round table of donors on funding of small scale irrigation

Sub Objective 4.2.3.: To identify, analyze and disseminate best practices as regards water control for small-scale irrigation in the two project countries

Activity 4.2.3: Capitalize the good practices in the two target countries and disseminate results

Start Date November 2009

Completion date:– April 2010

Official : CILSS – PRA Water control

Partners and direct beneficiaries: ARID, National irrigation Departments of NIGER, BURKINA FASO and the other (7) seven CILSS and ECOWAS member countries

Output , deliverables :

- Guide Document on best water control for small scale irrigation
- Dissemination of the guide document to the producers and users of small scale irrigation in the (9) nine CILSS countries

4. Calendar

			2009						2010										
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
			<i>month</i>			7	8	9	10	11	12	1	2	3	4	5	6	7	8
Objective 1 Diagnosis	Activity 1.1	Diagnoses						M1											
	Activity 1.2	Benchmarking									M2							M2	
	Activity 1.3	Productivity									M3							M3	
Objective 2 Action plans	Activity 2.1	Water distribution									M4								
	Activity 2.2	Water associations																M5	
	Activity 2.3	Fertilizers trials																	
	Activity 2.4	Rice trials									M8								
	Activity 2.5	Support services							M8										
Objective 3 Capacity building	Activity 3.1	Training								M10								M10	
	Activity 3.2	Communication						M11										M11	
	Activity 3.3	Workshops	A1															A3	
Objective 41. Coordination																			
Objective 42 . Small irrigation	Activity 421	Alignment																	
	Activity 422	PRADPIS review																	
	Activity 423	Best Practices																	

A1 to A3 = workshops; M = reports

5. Global budget (US \$)

	NIGER	BURKINA	IWMI	ARID	ROPPA	CILSS	Total
A1: Constraints and Opportunities Analysis							
A1.1: Rapid Appraisal of Irrigation Systems	22 000	19 156	137 403	3 000			
A1.2: Performance Benchmarking			63 455	2 000			
A1.3: Analysis of productivity and profitability and rice chains	4 000	4 110	91 960				
A2: Implementation of Interventions							
A2.1: Improving water conveyance and distribution systems	220 000	121 497	34 473				
A2.2: Strengthening Water Users' Associations	22 000	19 000	63 323				
A2.3: Participatory on-farm fertilizer trials	45 000	60 846	54 823				
A2.4: Participatory variety selection-cum-demonstration	44 000	53 000	25 199				
A2.5: Enhancing decentralized services	23 000	8 000	33 699				
A3: Capacity building, synthesis, dissemination and communication							
A3.1: Targeted Training for support services	23 000	19 689	21 570	4 000	3 000		
A3.2: Synthesis, dissemination and communication	5 000	1 635	59 620	8 000	5 000		
A3.3: Workshops and monitoring	9 000	23 067	154 475	6 000	2 000		
A4: Promotion of AWM & small-scale irrigation in the Sahel							
A4.1 General Coordination of the project						143 276	
A4.2 Promotion Small scale irrigation							
A4.2.1 Alignment of strategies in CILSS countries						109 743	
A4.2.2 Review PRADPIS						111 385	
A4.2.3 Promotion of Best practices						85 596	
Overhead						50 000	
Total	397 000	330 000	740 000	23 000	10 000	500 000	2 000 000

ANNEX 1

Tentative Workplan for Burkina Faso

September 2009 - August 2010

1. Introduction

WAIPRO is a project that aims at improving the performance and productivity of selected irrigation schemes through the identification and implementation of targeted interventions in two West African countries.

An inception workshop took place in Ouagadougou, Burkina-Faso, on July 20-21st 2009. The main project partners (mainly from Niger and Burkina Faso) met during two days and a field visit was organized on July 22nd.

A series of discussions and meetings were held in August in Burkina Faso with the main partners of the project: CILSS, IWMI, DADI, CNID-B and INERA. During these meetings, a draft MoU (protocol) concerning the project activities 1, 2 and 3 (see section 5) was prepared and submitted to the partners. The following document is the workplan for the first year of activity in Burkina Faso,

2. Specific Activities

The project will be implemented in three middle size irrigation schemes:

1. Talembika (located in the Plateau Central) and Karfguela (located in the region of the Cascades) for a full intervention: diagnosis and action plan, benchmarking, productivity analysis and tests with INERA.
2. A third irrigated scheme: Mogtedo (located in the Plateau Central) that will only be the object of a participatory diagnosis, allowing the measure of the impact of an on-going external intervention (by the African Development Bank).



Four types of activities are scheduled:

- Participatory diagnoses in three irrigation schemes and preparation of action plans with farmers
- Implementation of an action plan in two irrigation schemes. These action plans will be based on including equipment and training
- Research activities on:
 - o water management (benchmarking) and socio economics
 - o fertilizers
 - o rice varieties
- Capacity building

3. Justification

With high demographic rate, erratic rainfall exacerbated by climate change, high level of dependency on rice imports, a country like Burkina Faso is concentrating substantial efforts on the agricultural water sector. A National Strategy has been prepared and an Investment Plan has been proposed with the creation or rehabilitation of thousands of hectares.

At the moment the performance of irrigation schemes is not satisfactory. The project will concentrate on middle size irrigation schemes (twenty to few hundred ha) in order to boost the production by identifying the problems and putting forward concrete solutions. Research action on fertilizers and varieties will bring also solutions for intensification.

The project is building on a successful IWMI project in East Africa (APPIA) and on an existing know-how of West African partners in terms of participatory diagnosis.

4. Partners

Partners of the project know each other well. What is new is the simultaneous intervention of several partners on the same irrigation schemes: researchers (INERA, IFDC, WARDA, IWMI), government agencies (DADI, decentralized agencies) and professional organizations (CNID-B, ARID, ROPPA).

In order to ease the project implementation, it has been agreed during the inception workshop that DADI will act as the project focal point for Burkina Faso and will transfer the funds received from CILSS to the two main other partner institutions: CNID-B and INERA.

- **CNID-B**

CNID-B will be responsible for the organization of participatory diagnosis and the preparation of action plans. CNID-B will mobilize a multi-disciplinary team (an agricultural engineer, an agronomist, a socio-economist, a researcher (from INERA) and a member of ROPPA).

CNID-B will deliver the diagnosis reports and the proposed action plan report. These reports will be sent to DADI for validation and reviewed by IWMI in collaboration with INERA.

CNID-B, supported by IWMI, will also lead the benchmarking activity in the selected irrigation schemes. CNID-B will work with ARID on these issues but also on communication (through ARID web site).

Finally, CNID-B will also play an active role through targeted training for the private sector (training of technical operators, maintenance, after sales service).

- **INERA**

INERA's main tasks will be related to the following three research activities:

- Analysis of the profitability and productivity of the irrigated schemes in collaboration with IWMI.
- Participatory tests on fertilizers in collaboration with IFDC in order to formulate appropriate fertilizers applications to the selected schemes,
- Participatory rice variety tests in collaboration with WARDA, in order to promote the dissemination of efficient rice varieties, including NERICA type developed by INERA.

Finally, INERA will offer targeted trainings on general aspects of irrigated rice cultivation and trainings on issues identified as important during the participatory diagnoses.

- **DADI**

DADI will be responsible for the project's financial transactions and will also support the implementation of the action plans in the field. To do so, DADI will mobilize its decentralized services to implement the following two main tasks:

- Organization of specific trainings: DADI will train its technicians based in its regional services which in turn will provide training to its extension officers located in the irrigation schemes.
 - Implementation of action plans for improving water distribution. This will be based on the outcome of the field diagnoses and could include a wide range of actions: the purchase and rehabilitation of equipments, works with private companies, NGO interventions, groups work with farmers, etc.
- ARID and ROPPA will participate indirectly to the work plan in Burkina Faso through separate agreements with CILSS and IWMI. Their activities will be the following:

- ARID will bring information from its previous projects and be able to consolidate data from Niger and Burkina Faso (through the benchmarking).

- ARID will disseminate information through its network of National Committees in West Africa (with its newsletter, website, workshop)

ROPPA and its national representations will participate to the diagnosis. Its main involvement will be in the dissemination of the project results as well as a possibility of training its members. This training will be decided depending on the identification of the needs during the diagnosis.

5. Timeline for implementation

The activities (diagnoses) are planned to start in September and implementation of the action plans immediately after.

			2009				2010								
			9	10	11	12	1	2	3	4	5	6	7	8	9
Main Activities															
Objective 1 Diagnoses	Activity 1.1	Diagnoses			R										
	Activity 1.2	Benchmarking					R						R		
	Activity 1.3	Productivity and profitability of irrigated rice and vegetables													
Objective 2 Action Plans	Activity 2.1	Water works						R							R
	Activity 2.2	Water users associations' training							R					R	
	Activity 2.3														
	Activity 2.3.1	Fertilizers trials						R							R
	Activity 2.3.2	Rice variety trials						R							R
	Activity 2.4	Capacity building						R							

Legend: Colors CNID-B Blue, INERA green, DADI red. R = report
Activity 3 consists in trainings and monitoring activities that will be spread over the year.

6. Travel plans

Travels will mainly take place in Burkina Faso but should mobilize time and efforts of technicians and farmers.

Every three months, a technical monitoring committee will meet in Ouagadougou under the responsibility of the CONACILSS.

Every six months, the steering committee of the project will meet either in Burkina Faso or Niger.

7. Deliverables

The project will identify the main constraints and opportunities in three irrigation schemes.

The second objective is to enhance the performances of irrigation schemes through training, action-research, and equipment or rehabilitation.

Outputs in terms of reporting will be:

1. Reports on diagnosis (3)
2. Reports on action plans (2)
3. Reports on impact of action plans (2)
4. Research reports on productivity analysis (1)
5. Benchmarking report (1)
6. Action research report on rice variety tests (1)
7. Action research report on fertilizers trials (1)
8. Report on capacity building

The following logical framework is proposed:

Intervention		Means	Deliverable	Responsible	Indicators
Specific Objective Action 1 : Identifying constraints and opportunities for revitalizing performances et and productivity of irrigated schemes				IWMI	
Action 1.1 PRDA				IWMI	
Action 1.1.1	Participatory rapid diagnosis	Field visits with team	2 diagnoses Talembika and Karfguela 1 simplified diagnosis (Mogtedo)	CNID B with IWMI DADI control	3 Reports
Action 1.1.2	Planning of interventions	Visit by the team and agreement with producers DADI , IWMI and CILSS meeting	Two action plans		2 action plans prepared
Action 1.2 Performances <i>benchmarking</i>					
		Field visits during diagnosis and after Choice of indicators Bibliography	On the 3 schemes Comparison with other schemes Managers able to monitor their schemes	CNID-B with IWMI	Database Bibliography Comparative analyses Report by scheme

Action 1.3 Analyzing productivity and profitability of rice and horticulture				
	Field surveys Bibliography, Compilation	3 schemes	INERA with IWMI	Reports
Specific objective Action.2: Action plans implementation			DADI, IWMI	
Action 2.1 Improving water conveyance and distribution systems				
	Purchase equipment Works with farmers and enterprises	2 schemes	DADI	Evaluation of works quality
	Training by DADI and CNID B	Training in administrative and financial management of water schemes and cooperatives	DADI CNID B	Number of people trained
Action 2.3 Participatory on-farm fertilizer trials				
	Site selection training	20 farmers in Karfguéla and 10 in Talembika	INERA	Reports
Action 2.4 Participatory variety adaptation-cum-demonstration trials				
	Site selection Training	50 farmers in Karfguéla (350 ha) and 20 in Talembika (100 ha)	INERA	Reports - Articles
Action 2.5 Strengthening links with national support to agriculture				
	Needs assessment. Cascade training by DADI	Deconcentrated means for regional monitoring	DADI	Number of persons trained at PRDA
Objective of action 3: The capacities of the irrigation scheme managers and partners are strengthened				
	Evaluation of the levels and needs Targeted training	2 schemes and their leaders Workshops	IWMI DADI	Number of training Training materials External evaluation

8. Budget estimates

	DADI		CNID B		INERA	
	USD	FCFA	USD	FCFA	USD	FCFA
A1: Analysis of constraints and opportunities						
A1.1: Participatory rapid diagnosis						
A1.2: Performance Benchmarking			19 156	8 620 200		
A1.3: Analysis of productivity and profitability					4 110	1 849 500
A2: Implementation of interventions						
A2.1: Improving water conveyance and distribution systems	121 497	54 673 650				
A2.2: Strengthening Water Users Associations	19 000	8 550 000				
A2.3: Participatory on-farm fertilizer trials					60 846	27380700
A2.4: Participatory variety adaptation-cum-demonstration trials					53 000	23 850 000
A2.5: Reinforcing decentralized services	8 000	3 600 000				
A3: Capacity building, synthesis, and knowledge sharing						
A3.1: Enhancing linkages with support services			3 689	1 660 050	16 000	7 200 000
A3.2: Synthesis, dissemination and communication			1 635	735 750		
A3.3: Management, workshops and brainstorming sessions	21 734	9 780 300	1 333	599 850		
Total US \$ = 330, 000	170 321	76 644 450	25 813	11 615 850	133 956	60 280 200

Rate 450 FCFA = 1 USD

9. Estimation of funding needs for partners in Burkina Faso

September 2009	Diagnosis and organization of research	30 000
1 st Quarter (October, November, December 2009)	Validation and start of action plans	60 000
2 nd Quarter (January, February, March 2010) :	Equipment, works and training, trials	120 000
3 rd Quarter (April, May, June 2010):	Training and consolidation, trials	80 000
4 th Quarter (July, August, September 2010)	Evaluation, capitalization	40 000
		US \$ 330 000

10. Global Food Security Response Indicators (Burkina Faso - First year)

General Performance Indicators

IR - Enhanced Productivity of Smallholder-Based Agriculture

Sub-IR - Expanded Development, Dissemination, and Use of New Technology

- Target technologies research milestones
 - Technologies/Methods available for transfer
- A) IWMI PRDA Method tested and adopted
- B) Rice varieties selected in the field
- C) Fertilizers application methods and practices adopted in the field

- Adoption of target technologies
 - Area under new technology: 450 ha
 - Number of farmers who have adopted target technologies: 40 producers for A, 70 B, 30 for C

Sub-IR - Enhanced Human and Institutional Capacity for Technology Development, Dissemination, and Management

- Institutional capacity: 18 persons
 - PRDA Team: 4 persons trained
 - Capacity in 2 provinces PRDA: 6 persons
 - Capacity on rice B: 4 extension officers
 - Capacity on fertilizers C: 4 extension officers

Sub-IR - Enhanced Capacity of Producer Organizations

- Institutional capacity (organizations):
- 2 producers' organisations reinforced
- ROPPA staff reinforced

IR - Reduced Agricultural Trade and Transport Barriers

Sub-IR - Strengthened Capacity of Basic Market Structures

Identification of commercialization problems / + validated report

Export from Mogtédou Success story detailed / + validated report

Sub-IR - Enhanced Competitiveness of Smallholder-Based Agriculture

Enhancement of production and exchanges for small scale horticultural farmers

IR - Sound Market Based Principles for Agriculture [indicative, to be developed further]

Sub-IR - Increased Capacity of Regional Organizations

- Institutional capacity (organizations): ROPPA, ARID, CILSS reinforced

Sub-IR - Implementation of Sound Agriculture & Food Policies [

- Policy progress milestones
 1. Analysis: review and/or proposal of a policy
Review of national irrigation strategy with WAIPRO vision and inputs in the national policy (through DADI)
 2. Public debate and/or consultation with stakeholders

- Two public restitutions with farmers and DADI
- Results dissemination at national level
- Enhanced Human and Institutional Capacity for Policy Formulation, Governance and Implementation
 - Institutional capacity (policy): capacity of DADI and its services reinforced

IR - Accelerate the Participation of the Ultra Poor in Rural Growth

Output Indicators

- Number of rural households benefiting directly from interventions: 140
- Number of vulnerable households benefiting directly from interventions: 30
- Number of partner organizations: 6
- Number of agriculture-related firms benefiting directly from interventions: 6
- Female attendance at training: 20%
- Number of producer organizations, water users associations, trade and business associations, and community-based organizations assisted: 5

ANNEX 2

Tentative Workplan for Niger

September 2009 - August 2010

11. Introduction

WAIPRO is a project that aims at improving the performance and productivity of selected irrigation schemes through identifying constraints and opportunities and implementing targeted interventions in West African countries.

An inception workshop took place in Ouagadougou, Burkina-Faso, on July 20-21st 2009. The main project partners (mainly from Niger and Burkina Faso) met during two days and a field visit was organized on July 22nd.

A series of exchanges took place in August with the main partners of the project: CILSS, IWMI, DGGR, ANID and INRAN.

The following document should be considered as the plan of work for the first year of activity in Niger.

12. Specific Activities

The project has selected four small to middle size irrigation schemes:

Irrigation scheme	Developed area (ha)	Area in use (ha)	Number of farmers
Dayberi (Tillabéri)	350	309	660
Chetimari (Diffa)	55	55	212
Djirataoua (Maradi)	500	530	2120
Galmi (Tahoua)	250	250	845

Chétimari and Daybéri are rice irrigation schemes, Galmi and Djirataoua are for horticulture.



Four types of activities are scheduled:

- participatory diagnoses in four irrigation schemes and preparation of action plans with farmers
- implementation of action plans in four irrigation schemes. These action plans will be based on the diagnoses and will include equipment, works and training
- research activities on
 - o fertilizers
 - o rice varieties
 - o water management (benchmarking) and socio economics
- capacity building

13. Justification

The government of Niger has put huge efforts in the recent past in the irrigation sector in order to both resist to food crisis (such as the event of 2005) and respond to high food demand. The sector is well organized with a Rural Development Strategy with strong irrigation component.

The performances of many irrigation schemes are still not very satisfactory. The project will concentrate on small to middle size irrigation scheme in order to improve the production of the schemes, by identifying problems and putting forward concrete solutions, and through action research on fertilizers and varieties.

The project is building on a successful IWMI project (APPIA) and on an existing network of partners having a good know-how in Niger terms of participatory diagnoses of irrigation schemes.

14. Partners

Partners of the project know each other quite well. What is new in this action research project is the simultaneous intervention of several partners on the same irrigation schemes: researchers (INRAN, IFDC, WARDA, IWMI), government agencies (DGGR, ONAHA), professional organizations (ANID, ARID, ROPPA).

In order to ease the project implementation, it has been agreed during the inception workshop that DGGR will act as the focal point of the project for Niger. DGGR will receive the funds from CILSS and transfer to the three main partner institutions in Niger: ANID, ONAHA and INRAN.

- **ANID**

ANID will be responsible for the organization of participatory diagnosis and the preparation of action plans. ANID will mobilize a multi-disciplinary team (a rural engineer, an agronomist, a socio-economist, a researcher (from INRAN) and a member of the ROPPA).

ANID will deliver the diagnosis reports and the proposed action plans report. These reports will be sent to DGGR for validation and reviewed by IWMI in collaboration with INRAN.

ANID, supported by IWMI, will also lead the benchmarking activity in the selected irrigation schemes. ANID will work with ARID on these issues but also on communication (through ARID web site). ANID will meet once a month to follow the activities of the project.

- **INRAN**

INRAN's main tasks will be related to the following three research activities:

- An analysis of profitability and productivity through collaboration with IWMI.
- Participatory tests on fertilizers in rural areas in collaboration with IFDC in order to identify formulations and appropriate doses to the selected schemes,
- Participatory varietal tests in rural areas in collaboration with WARDA, in order to promote the dissemination of efficient rice varieties.

Finally INRAN will offer targeted trainings on general aspects of irrigated rice cultivation and trainings on issues identified as important during the participatory diagnosis.

- **ONAHA**

ONAHA will be associated to the diagnoses. They will get seed funding to work on benchmarking methods. ONAHA will be able to act in the action plans through training water users associations.

- **DGGR**

DGGR will be responsible for the project's financial transactions and will also support the implementation of the action plans in the field. To do so, DGGR will mobilize both ONAHA and its decentralized services to implement the following two main tasks:

- Organization of specific trainings:

DGGR will train technicians of its regional services which in turn will provide training in the irrigation schemes.

- Implementation of action plans for improving water distribution.

This could include a wide range of actions: the purchase and rehabilitation of equipments, works with private companies, NGO interventions, group work with farmers etc.

ARID and ROPPA will participate indirectly to the work plan in Burkina Faso through separate agreements with CILSS and IWMI. Their activities will be the following:

- ARID will bring information from its previous projects and be able to consolidate data from Niger and Burkina Faso (through the benchmarking).
- ARID will disseminate information through its network of National Committees in West Africa (with its newsletter, website, workshop)

ROPPA and its national representations will participate to the diagnosis. Its main involvement will be in the dissemination of the project results as well as a possibility of training its members. This training will be decided depending on the identification of the needs during the diagnosis.

15. Timeline for implementation

The diagnoses are planned to start in September and implementation of the action plans immediately after.

			2009				2010								
			9	10	11	12	1	2	3	4	5	6	7	8	9
Main Activities															
Objective 1 Diagnoses	Activity 1.1	Diagnoses			R										
	Activity 1.2	Benchmarking					R							R	
	Activity 1.3	Productivity						R							
Objective 2 Action Plans	Activity 2.1	Water works						R							R
	Activity 2.2	Water Associations training							R					R	
	Activity 2.3														
	Activity 2.3.1	Fertilizers trials						R							R
	Activity 2.3.2	Rice variety trials						R							R
	Activity 2.4	Capacity building						R							

Legend: Colors ANID Blue, INRAN green, DGGR red. ONAHA yellow - R = report
Activity 3 consists in trainings and monitoring activities that will be spread over the year.

16. Travel plans

Travel will be mainly inside Niger but should mobilize time and efforts of technicians and farmers.

Every three months at technical monitoring committee will meet in Niamey under the responsibility of the CONACILSS.

Every six months a steering committee of the project is scheduled and meetings will take place either in Burkina-Faso or in Niger.

17. Deliverables

The project will in the short time identify the main constraints and opportunities of four irrigation schemes.

The second objective is the enhance the performances of irrigation schemes through different ways (training, action research, equipment or rehabilitation)

Outputs in terms of reporting will be

9. Reports on diagnosis (3)
10. Reports on action plans (2)
11. Reports on impact of action plans (2)
12. Research reports on productivity analysis (1)
13. Benchmarking report (1)
14. Action research report on rice variety tests (1)
15. Action research report on fertilizers trials (1)
16. Report on capacity building

The following logical framework is applicable:

Intervention		Means	Deliverable	Responsible	Indicators
Specific Objective Action 1 : Identifying Constraints and opportunities for revitalizing performances et and productivity of irrigated schemes				IWMI	
Action 1.1 PRDA				IWMI	
Action 1.1.1	Participatory Rapid Diagnosis	Field visit with team Visit by the team and agreement with producers	4 Diagnosis 4 Action plans	ANID with IWMI DGGR control	3 Reports 2 action plans prepared
Action 1.1.2	Planification of interventions	DGGR , ONAHA IWMI and CILSS meeting			
Action 1.2 Performances <i>benchmarking</i>					
		Field Visits during diagnosis and after Choice of indicators Bibliography	On the 4 schemes Comparison with other schemes Managers able to monitor their schemes	ANID with IWMI And ONAHA	Database Bibliography Comparative analyses Report by scheme
Action 1.3 Analyzing productivity and profitability of rice and horticulture					
		Field surveys Bibliography Compilation	4 schemes	INRAN with IWMI	Reports
Specific objective Action.2 Action plans implementation				DGGR, IWMI	
Action 2.1 Improving water conveyance and distribution systems					
		DGGR Mission to confirm the costs Desk work for procurement	Evaluation of needs and preparation of procurement documents (DAO)	DGGR	Reports
		Purchase equipment Works with farmers and enterprises	4 schemes	DGGR	Evaluation of works quality
		Training by ONAHA with DGGR	Training in administrative , financial management of water schemes and cooperatives	ONAHA	Number people trained
Action 2.3 1 Participatory on-farm fertilizer trials					
		Site Selection training	With farmers	INRAN	Reports

Action 2.3.2 Participatory variety adaptation-cum-demonstration trials				
	Site selection Training	With farmers	INRAN	Reports - Articles
Action 2.4 Strengthening links with national support to agriculture				
	Team building during a national inception workshop (50 persons)	Explanation on PRDA methods Evaluation of level of regional services Installation of the national technical committee of monitoring	DGGR, ANID	Number of persons trained at PRDA Report on human resources for PRDA Monitoring rules established
Objective of action 3 / The capacities of the irrigation scheme managers and partners are strengthened				
	Evaluation of the levels and needs Targeted training	2 schemes and their leaders Workshops	IWMI DGGR	Number of training Training materials External Evaluation

18. Budget estimates

	DGGR		ANID		INRAN		ONAHA	
	USD	FCFA	USD	FCFA	USD	FCFA	USD	FCFA
A1: Analysis of constraints and opportunities								
A1.1: Participatory rapid diagnosis								
A1.2: Performance Benchmarking			20000	9000000			2000	900000
A1.3: Analysis of productivity and profitability					4000	1800000		
A2: Implementation of interventions								
A2.1: Improving water conveyance and distribution systems	20 0000	90000000						
A2.2: Strengthening Water Users Associations							22000	9900000
A2.3: Participatory on-farm fertilizer trials					45000	20250000		
A2.4: Participatory variety adaptation-cum-demonstration trials					44000	19800000		
A2.5: Reinforcing decentralized services	23 000	10350000						
A3: Capacity building, synthesis, and knowledge sharing								
A3.1: Enhancing linkages with support services			5000	2250000	18 000	8100000		
A3.2: Synthesis, dissemination and communication			5000	2250000				
A3.3: Management, workshops and brainstorming sessions			9000	4050000				
Total	223 000	100350000	39 000	17550000	111 000	49950000	24 000	10800000
Total US \$ = 397 000								

Rate 450 FCFA = 1 USD

19. Estimation of funding needs for partners in Niger

September 2009	diagnosis and organization of research	30000
1 st Quarter (Oct November December 2009)	validation and start of action plans	80000
2 nd Quarter (January, February, March 2010) :	equipment, works and training, trials	200000
3 rd Quarter (April May, June 2010) :	training and consolidation, trials	70000
4 th Quarter (July, August, September 2010)	Evaluation, capitalization	17000
		US \$ 397 000

20. Global Food Security Response Indicators (Niger - First year)

General Performance Indicators

IR - Enhanced Productivity of Smallholder-Based Agriculture

Sub-IR - Expanded Development, Dissemination, and Use of New Technology

- Target technologies research milestones
 - Technologies/Methods available for transfer
- A) The DPRP Method IWMI DPRP tested and adopted
- B) Rice variety selected in the field
- C) Fertilizer methods adopted in the field
- Adoption of target technologies
 - Area under new technology 1155 ha
 - Number of farmers who have adopted
80 producers for A, 70 B, 100 for C

Sub-IR - Enhanced Human and Institutional Capacity for Technology Development, Dissemination, and Management

- Institutional capacity 30 persons
 - PRDA Team 10 persons trained
 - Capacity in 4 provinces PRDP: 8 persons
 - Capacity on rice B: 4 extension officers
 - Capacity on fertilizers C: 8 extension officers

Sub-IR - Enhanced Capacity of Producer Organizations

- Institutional capacity (organizations):
- 4 producers' organisations reinforced
- ROPPA staff reinforced

IR - Reduced Agricultural Trade and Transport Barriers

Sub-IR - Strengthened Capacity of Basic Market Structures

Identification of commercialization problems / + validated report

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- Results dissemination at national level
- Enhanced Human and Institutional Capacity for Policy Formulation, Governance and Implementation
Institutional capacity (policy): capacity of DGGR and its services reinforced

IR - Accelerate the Participation of the Ultra Poor in Rural Growth

Output Indicators

- Number of rural households benefiting directly from interventions 400
- Number of vulnerable households benefiting directly from interventions 80
- Number of partner organizations 7
- Number of agriculture-related firms benefiting directly from interventions 6
- Female attendance at training 20 %
- Number of producer organizations, water user associations, trade and business associations, and community-based organizations assisted 8