AFB/PPRC.10/7
3 December 2012

Adaptation Fund Board
Project and Programme Review Committee
Tenth Meeting
Bonn, 11-12 November 2012

PROPOSAL FOR NIGER

I. Background

1. The Operational Policies and Guidelines for Parties to Access Resources from the Adaptation Fund, adopted by the Adaptation Fund Board, state in paragraph 41 that regular adaptation project and programme proposals, i.e. those that request funding exceeding US$ 1 million, would undergo either a one-step, or a two-step approval process. In case of the one-step process, the proponent would directly submit a fully-developed project proposal. In the two-step process, the proponent would first submit a brief project concept, which would be reviewed by the Project and Programme Review Committee (PPRC) and would have to receive the approval by the Board. In the second step, the fully-developed project/programme document would be reviewed by the PPRC, and would finally require Board's approval.

2. The Templates Approved by the Adaptation Fund Board (Operational Policies and Guidelines for Parties to Access Resources from the Adaptation Fund, Annex 3) do not include a separate template for project and programme concepts but provide that these are to be submitted using the project and programme proposal template. The section on Adaptation Fund Project Review Criteria states:

> *For regular projects using the two-step approval process, only the first four criteria will be applied when reviewing the 1st step for regular project concept. In addition, the information provided in the 1st step approval process with respect to the review criteria for the regular project concept could be less detailed than the information in the request for approval template submitted at the 2nd step approval process. Furthermore, a final project document is required for regular projects for the 2nd step approval, in addition to the approval template.*

3. The first four criteria mentioned above are:
   1. Country Eligibility,
   2. Project Eligibility,
   3. Resource Availability, and
   4. Eligibility of NIE/MIE.

4. The fifth criterion, applied when reviewing a fully-developed project document, is:
   5. Implementation Arrangements.

5. In its 17th meeting, the Adaptation Fund Board decided (Decision B.17/7) to approve "Instructions for preparing a request for project or programme funding from the Adaptation Fund", contained in the Annex to document AFB/PPRC.8/4, which further outlines applicable review criteria for both concepts and fully-developed proposals.

6. Based on the Adaptation Fund Board Decision B.9/2, the first call for project and programme proposals was issued and an invitation letter to eligible Parties to submit project and programme proposals to the Adaptation Fund was sent out on April 8, 2010.

7. According to the paragraph 41 of the operational policies and guidelines, a project or programme proposal needs to be received by the secretariat not less than nine weeks before a Board meeting, in order to be considered by the Board in that meeting.

8. The following project concept titled "Enhancing Resilience of Agriculture to Climate Change to Support Food Security in Niger, through Modern Irrigation Techniques" was submitted by the West African Development Bank (BOAD), which is a Regional Implementing

Entity of the Adaptation Fund. This is the first submission of the project concept. It was received by the secretariat in time to be considered in the 19th Adaptation Fund Board meeting. The secretariat carried out a technical review of the project proposal, assigned it the diary number NER/RIE/Food/2012/1/PC, and filled in a review sheet.

9. In accordance with a request to the secretariat made by the Adaptation Fund Board in its 10th meeting, the secretariat shared this review sheet with BOAD, and offered it the opportunity of providing responses before the review sheet was sent to the Project and Programme Committee of the Adaptation Fund.

10. The secretariat is submitting to the Project and Programme Review Committee the summary and, pursuant to decision B.17/15, the final technical review of the project, both prepared by the secretariat, along with the final submission of the proposal in the following section.

II. Project Summary

Niger – Enhancing Resilience of Agriculture to Climate Change to Support Food Security in Niger, through Modern Irrigation Techniques

Implementing Entity: *BOAD*
Project/Programme Execution Cost: USD 435,000
Total Project/Programme Cost: USD 9,135,000
Implementing Fee: USD 776,000
Financing Requested: USD 9,911,000

Project/Programme Background and Context: Variability and climate change are major constraints for the development of Niger, insofar as they have a direct impact on food security of the country, especially in rural areas. Food crises in Niger are in fact the result of deficits in cereal production as a result of constant and repeated rainfall deficits, combined with environmental factors, and human parasites. The country is characterized by a high variability both spatial and temporal climatic parameters, especially rainfall. This has recently led to rainfall deficits resulting in recurring droughts. Over the past forty years, the country has experienced seven droughts which impact on agropastoral production, food security and socio-economic life have been severe.

The main objective of the project is to enhancing resilience of agriculture to climate change to support food security in Niger, through promotion of modern irrigation techniques.

The specific objectives are:

1. Enhancing stakeholders capacity on climate resilient irrigation systems;
2. Promote the setting up of efficient technologies to sustainably manage water resources and preserve soils of irrigated perimeters;
3. Reduce energy charges for irrigation.
4. Support diversification of livelihoods to improve income of farmers.

To achieve these objectives, the following components were identified:

Component 1: Enhancing stakeholders' technical and institutional capacities (USD 700,000)

To increase the resilience of communities to climate change through water management for agriculture it is required to reinforce the capacity of stakeholders in the control and management of water. Indeed, the challenges faced by all those who are involved in irrigated agriculture in the above-described context in Niger are enormous: drying-up and water resources management, storage, and canalization and irrigation areas highlighted. In addition, we must take into account aspects related to storage of agricultural products. The project will at first enhance the capacity and skills of decentralized technical services of the State (Ministries in charge of agriculture and livestock, radix development...) to analyze the effects and threats of climate change, to enable them to mobilize and assist communities to undertake their own analysis of the impacts of climate change and adopt efficient techniques that will be identified. The project will also support strengthening the capacities of communities to enable them to prepare detailed adaptation plans, including plans for harmonized livestock, land, water management and overall use of natural resources, which will be integrated into their local

development plans. This will contribute to the desired effect No. 3 of the Initiative 3N on "*Improving the resilience of vulnerable groups to climate change.*" This is an important recommendation for which was identified as a guarantee of success for the implementation of adaptation measures in the Niger PANA.

Component 2: Development of irrigated perimeters (USD 6,500,000)

In Niger, 90% of the population is rural and derives most of its income from agricultural activities. Agriculture is mainly pluvial because only 1.86% of the arable land is irrigated or 1/3 of the identified irrigation potential in the country. However, pluvial agriculture has become uncertain owing to the scarcity of rainfall, its poor distribution and land degradation. Also to ensure a successful agricultural campaign, one uses irrigated agriculture. Between the two modes of production, i.e., pluvial and irrigated, the difference in crop yields ranges from simple to triple or even quadruple. Moreover, the irrigation allows several agricultural campaigns per year, regardless of the rainy seasons. Unfortunately, irrigation techniques commonly practiced requires a great deal of water and energy. And water sources (groundwater, ponds, and rivers) are often made use of while their survival is problematic because of the scarcity of rainfall and their solicitude.

Outcome 3: 3. Support to the diversification of livelihoods and improvement of the farmers income (USD 1,500,000)

The project will promote access to credit to enable farmers' beneficiaries of the project to have the financial capacity to invest in and adopt the proposed techniques. On the other hand, people from Niger receive from natural ecosystems supplements food and cash incomes that are not to be overlooked in the search for nutritional security and resilience to climate change and other disasters. Hundreds of plants, herbaceous or woody species are subjected to more or less intensive exploitation for food, social or economic ends. In urban centers, the marketing of non-timber forest products allows women and children to earn money and to part of the workforce to create jobs. In some rural communities, the income from the marketing of non-timber forest products represents up to a third off-farm income. The project will support generating income activities in each locality recipient to enable farmers to diversify their livelihoods to increase their resilience capacity to climate change effect. Activities to be undertaken will be related to the needs expressed by women's and youth's groups. They will be implemented with technical services depending on their areas of expertise. Finally, the project will contribute to the dissemination of drying techniques which outperform traditional drying, such as solar dryers with low-cost, for domestic or semi-industrial use in beneficiaries' communities. In rural areas where there are few opportunities to sell agricultural surplus at a good price and where transportation costs are high, the dried products can be a significant source of revenue and the promotion of solar drying an economic development tool for these remote areas

ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: Regular-sized Project Concept

Country/Region: **Niger**
Project/Programme Title: **Enhancing Resilience of Agriculture to Climate Change to Support Food Security in Niger, through Modern Irrigation Techniques**
AF Project ID: **NER/RIE/Food/2012/1/PC**
NIE/MIE Project/Programme ID: Requested Financing from Adaptation Fund (US Dollars): **9,911,000**
Regular Project/Programme Concept Approval Date (if applicable): Anticipated Submission of final RP document (if applicable):
Reviewer and contact person: **Daouda Ndiaye** Co-reviewer(s): **Minna Kononen**
NIE/MIE Contact Person: **Mawuli Komi Amegadje**

Review Criteria	Questions	Comments on October 30, 2012	Comments on November 14, 2012
Country Eligibility	1. Is the country party to the Kyoto Protocol?	Yes.	
	2. Is the country a developing country particularly vulnerable to the adverse effects of climate change?	Yes. Niger is characterized by a high variability of both spatial and temporal climatic parameters, especially rainfall, and increased temperature. This results in recurring periods of drought and flood. **CR1:** Please provide references for the projected increase in temperature by 2020 to 2049. **CR2:** Please provide projections of rainfall periods and intensity.	**CR1:** Addressed. **CR2:** Addressed.
Project Eligibility	1. Has the designated government authority for the Adaptation Fund endorsed the project/programme?	A letter dated 5 October 2012 was signed by the Director of CNEDD in Niger. However, our records do not show that Niger has nominated a Designated Authority. **CR3:** Please provide us with the letter of a government representative at the Ministry level nominating Mr Kamaye Maazou, Executive Secretary of CNEDD, as the AF Designated Authority for Niger.	**CR3:** Addressed.

	2. Does the project / programme support concrete adaptation actions to assist the country in addressing adaptive capacity to the adverse effects of climate change and build in climate resilience?	Yes. The project promotes the use of modern irrigation techniques in order to enhance the resilience of agriculture to climate change to support food security in Niger. It will do so through (i) the reinforcement of technical and institutional capacities of the adherent parties; (ii) strengthening and building of irrigated perimeters; and (iii) support to the preservation of the agricultural products and diversification of means of survival of the target populations. However, while the planned activities are important to achieve the described objective, the target area and number of beneficiaries is only vaguely described ("…nationwide but with interventions in areas of high concentrations and agricultural potential. The target group consists of poor people (women, youth) organized groups and cooperatives exploiting rice growing areas and to be rehabilitated mixed-farming areas"). This information is highly relevant for an assessment of the project's lack of duplication with other interventions in Niger. There are currently several initiatives aiming at increasing the resilience of communities and agriculture to climate change and variability (see section below, on duplication). **CR4:** Please describe the project target area and number of beneficiaries, to better assess the potential duplication with other initiatives. Also, the link between the drip irrigation system to be developed under output 2.1.1 and the solar pumping systems under 2.2.1 should be more clearly established, in terms of investments. Will AF money be funding part of the drip irrigation system or will it be entirely funded by BOAD funding? Or will BOAD funding only cover the solar pumps of the drip irrigation? If yes, what is covered by AF funds? **CR5:** Please specify how the investment from BOAD in irrigation systems is complementary to the one requested from AF funding. Also, please explain the timeframe of approval of BOAD's funding relative to the approval of the AF full proposal, to avoid delays in project implementation.	**CR4:** Addressed. **CR5:** Addressed.

	3. Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations?	Yes. However, the description of the benefits should be backed with information on the number of beneficiaries and among them, the proportion of vulnerable communities, including gender consideration. **CR6**	**CR6:** Addressed.
	4. Is the project / programme cost effective?	Not clear. In overall, proposed project activities overlap with several on-going initiatives in Niger, throughout its components 1-3. However, the concept note does not mention any possible synergies or coordination measures with other projects and thus does not seem cost effective. More specifically, **CR7:** Please clarify how Component 1 will be coordinated with other on-going activities in Niger, most notably with Niger Community Action Project for Climate Resilience-project by the World Bank (under Climate Investment Fund). Activities 1.1.-1.3. of the proposed project are almost identical with the WB project. **CR8:** African Development Bank has several on-going projects (also under Climate Investment Fund) focusing on small scale irrigation in communities, yet these initiatives are not mentioned. Please clarify how the activities under Component 2 will build on the existing experience and clarify if there are any duplication risks. **CR9:** Please provide justification for the USD 1,5Million AF grant for the micro-credit program under Component 3.1**.**	**CR7:** Addressed. At the full proposal stage, a clear mapping of project interventions should be established, showing the complementarities and lack of duplication between this and other interventions. Clear mechanisms of coordination should be outlined. CR8: **CR9:** Partially addressed. There is reference to a grant system that would be distributed through local micro-credit institutions, but in the clarifications provided there is a mention of a short and medium term loan system. It is not clear if the funding from the AF will be delivered in the form of grant or loan. At full proposal stage, the partner micro-credit institutions(s) will have to be identified and a clear plan for providing micro-credit to the target beneficiaries should be developed. Also, the rationale for the implementation of this activity should be provided.

	5. Is the project / programme consistent with national or sub-national sustainable development strategies, national or sub-national development plans, poverty reduction strategies, national communications and adaptation programs of action and other relevant instruments?	Yes. However, please provide more information on the Initiative 3N. **CR10**	**CR10:** Addressed.
	6. Does the project / programme meet the relevant national technical standards, where applicable?	Yes.	
	7. Is there duplication of project / programme with other funding sources?	Not clear. The requested information was not provided. There are several initiatives related to food security and adaptation of the agricultural sector to climate change in Niger. The capacity building component (1) should take particularly into account the existing projects, which will provide support to relevant government and community institutions to mainstream adaptation into the relevant policies and plans. These include the above mentioned World Bank implemented CAPCR project, as well as the PROMOVARE project by the AfDB, both under the umbrella of the Niger PPCR program (with a grant of 50 million USD and concessional loan of 60 million USD, with IBRD, AfDB and IFC as main implementing partners http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/PPCR%206%20SPCR%20Niger%20nov2010.pdf). For other projects/programmes implemented in Niger, please see Tables 10a and b of the SPCR document mentioned above. These include GEF/LDCF projects.	

		CR11: Please explain more clearly, by providing the project target areas and communities, how the project will not duplicate with current initiatives. Please explain the synergies and complementarities that will be expected with the existing projects/programmes. **CR12:** Also, please describe how the project will build from previous experiences, including the performances of small-scale irrigation development in the fight against poverty and food insecurity through the PPIP program and PIP2 in Niger and the FAO Food Security projects and other small-scale irrigation initiatives financed by various multilateral sources (FAO, IFAD, EU).	**CR11:** Partly addressed. There are many more initiatives currently underway in Niger, as outlined in Tables 10a and 10b of the SPCR document previously mentioned. At the full proposal stage, please describe more clearly the complementarities, synergies with current initiatives, and lessons to be drawn from past projects and programmes. **CR12:** Partly addressed. The lessons from past projects and programmes should be taken into account in the design of the activities in the full proposal.
	1. Does the project / programme have a learning and knowledge management component to capture and feedback lessons?	Yes.	
	2. Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including gender considerations?	Not clear. **CR13:** Please provide a list of consulted stakeholders.	**CR13:** Barely addressed. A list of individual members of grassroot organizations is provided. However, the document does not state who else have been consulted, i.e. ministries, NGOs, local governments, extension services, private sector, donors etc.
	3. Is the requested financing justified on the basis of full cost of adaptation reasoning?	Not clear. **CR14:** Please provide the justification for funding requested, focusing on the full cost of adaptation reasoning.	**CR14:** Addressed.
	4. Is the project / program aligned with AF's results framework?	Yes.	

	5. Has the sustainability of the project/programme outcomes been taken into account when designing the project?	Yes, especially through the outcomes related to capacity building, micro-financing and income-generating activities. However, the information on sustainability is not provided in the document. **CR15:** In the relevant section, please explain how the sustainability of the project/programme outcomes has been taken into account when designing the project.	**CR15:** Addressed.
Resource Availability	1. Is the requested project / programme funding within the cap of the country?	Yes.	
	2. Is the Implementing Entity Management Fee at or below 8.5 per cent of the total project/programme budget before the fee?	Yes.	
	3. Are the Project/Programme Execution Costs at or below 9.5 per cent of the total project/programme budget (including the fee)?	Yes.	
Eligibility of NIE/MIE	4. Is the project/programme submitted through an eligible NIE/MIE that has been accredited by the Board?	Yes. BOAD is an accredited implementing entity.	
Implementation Arrangement	1. Is there adequate arrangement for project / programme management?	n/a (Not required at Project Concept stage).	
	2. Are there measures for financial and project/programme risk management?	n/a (Not required at Project Concept stage).	
	3. Is a budget on the Implementing Entity Management Fee use included?	n/a (Not required at Project Concept stage).	
	4. Is an explanation and a breakdown of the execution costs included?	n/a (Not required at Project Concept stage).	

	5. Is a detailed budget including budget notes included?	n/a (Not required at Project Concept stage).	
	6. Are arrangements for monitoring and evaluation clearly defined, including budgeted M&E plans ?	n/a (Not required at Project Concept stage).	
	7. Does the M&E Framework include a break-down of how implementing entity IE fees will be utilized in the supervision of the M&E function and sex-disaggregated data, targets and indicators?	n/a (Not required at Project Concept stage).	
	8. Does the project/programme's results framework align with the AF's results framework? Does it include at least one core outcome indicator from the Fund's results framework?	n/a (Not required at Project Concept stage). *Please note that as of the 14th AFB meeting, fully developed project/programme proposals are required to provide a table indicating alignment of project/programme objectives with the AF results framework. A template will be available on the AF website*.)	
	9. Is a disbursement schedule with time-bound milestones included?	n/a (Not required at Project Concept stage).	

Technical Summary	Niger is a landlocked and Sahelian country located in one of the most vulnerable areas to adverse effects of climate change, characterized by recurring droughts and a heavy dependence on rain farming. The objective of the project is to enhance resilience of agriculture to climate change to support food security in Niger, through promotion of modern irrigation techniques. It will do so through enhancing the capacity of stakeholders on climate resilient irrigation systems, promoting the development of efficient technologies to sustainably manage water resources and preserve soils of irrigated perimeters and reduce energy charges for irrigation. Finally, it will support the diversification of livelihoods to improve the income of farmers. While the suggested activities are very relevant to achieve the project's objective, the initial technical review found that a number of points needed to be clarified, including the lack of specification of the target area, the justification of the adaptation reasoning, the need for additional information on the consultative process, the lack of climate

	projections (intensity and length of rainy periods) and, more importantly the lack of information on the current adaptation projects/programmes especially in the sector of agriculture. Also, there was both institutional and financial risk associated in the investments for solar energy water pumps. There were also risks associated with microcredit schemes. A number of clarification requests were made and the proponent submitted a revised document, adequately addressing most of the comments from the technical review. Therefore the secretariat is recommending this proposal for endorsement. The proponent should consider to address the following issues when submitting a full proposal: a) A clear mapping of project interventions and targeted beneficiaries should be established, showing the complementarities and lack of duplication between this and other interventions. Clear mechanisms of coordination should be outlined; b) The partner micro-credit institutions(s) will have to be identified in the full proposal and a clear plan for providing micro-credit to the target beneficiaries should be developed. Also, the rationale for the implementation of this activity should be provided and the design of such activity should build on the experience from previous or current microcredit schemes; c) A clear description of the complementarities, synergies with current initiatives should be provided, and lessons drawn from past projects and programmes should be taken into account in the design of the activities in the full proposal; d) The removal or mitigation of the different barriers and risks to the use of solar power systems as a source of energy for the irrigation systems should be demonstrated, taking into account current and previous attempts to promote such systems; e) Detailed information on the stakeholders who have been consulted (i.e. ministries, NGOs, local governments, extension services, private sector, donors etc.) should be provided and a stakeholder involvement plan should be presented.
Date:	20 November 2012

DAPTATION FUND

DATE OF RECEIPT:
ADAPTATION FUND
PROJECT/PROGRAMME ID:
(For Adaptation Fund Board Secretariat Use Only)

PROJECT/PROGRAMME PROPOSAL

PART I: PROJECT/PROGRAMME INFORMATION

PROJECT/PROGRAMME CATEGORY:	**ORDINARY PROJECT**
COUNTRY/IES:	**NIGER**
SECTOR/S:	
TITLE OF PROJECT/PROGRAMME:	**ENHANCING RESILIENCE OF AGRICULTURE TO CLIMATE CHANGE TO SUPPORT FOOD SECURITY IN NIGER, THROUGH MODERN IRRIGATION TECHNIQUES**
TYPE OF IMPLEMENTING ENTITY:	**REGIONAL**
IMPLEMENTING ENTITY:	**BANQUE OUEST AFRICAINE DE DEVELOPPEMENT (BOAD)**
EXECUTING ENTITY/IES:	**MINISTRY IN CHARGE OF AGRICULTURE**
AMOUNT OF FINANCING REQUESTED:	**9.911.000** (IN U.S Dollars Equivalent)

NB: THIS IS A PROJECT CONCEPT NOTE. THE FULL PROJECT WILL BE PREPARED AFTER THE APPROVAL OF THIS PROJECT CONCEPTBY THE ADAPTATION FUND BOARD

PROJECT / PROGRAMME BACKGROUND AND CONTEXT:

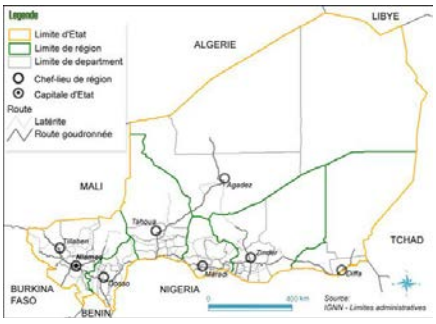

Figure 1. Régions administratives du Niger (Source : Vierri, T., 2004)

As a landlocked and Sahelian country whose nearest point to the sea is at about 600 km, Niger covers an area of 1,267,000 km^2. Itis located between longitudes 0°16 and 16° East, and latitudes 11°1 and 23°17 North. About ¾ of the country is covered by deserts among which is the Tenere desert which counts among the most famous ones in the world.

Between 1988 and 2011, the population of Niger almost doubled, moving from 7,256,626 to 15,203,822 inhabitants (INS, 2010) of which more than 80% are rural. With an average population growth rate of 3.45% between 1990 and 1999, one of the highest in the world, the average demographic growth exceeds by large the rate of the agricultural growth of the country, estimated at 2.2% during the past years. The average density of population is low (6.5 per km2), but this value masks differences, most of the population (about 75%) is concentrated in some 12% of the territory, south axis Niamey - Zinder, creating a significant population pressure on the reputed fragile agro-pastoral environment. The country's economy is dominated by the agricultural sector contributes to GDP and employs about 40% to 90% of the workforce. It is the main economic activity of the country, it provides some 16% of exports. Although relatively diversified, it remains dependent on the internal and external isolation and is penalized by high population growth,

ecological environment more austere, limited resources, widespread poverty and high exposure of the country to the negative impacts of the variability and climate change.

ISSUE OF CLIMATE CHANGE AND FOOD INSECURITY IN NIGER

Variability and climate change are major constraints for the development of Niger, insofar as they have a direct impact on food security of the country, especially in rural areas. Food crises in Niger are in fact the result of deficits in cereal production as a result of constant and repeated rainfall deficits, combined with environmental factors, and human parasites.

The country is characterized by a high variability both spatial and temporal climatic parameters, especially rainfall. This has recently led to rainfall deficits resulting in recurring droughts. Over the past forty years, the country has experienced seven droughts which impact on agropastoral production, food security and socio-economic life have been severe.

With significant food deficits, Niger cannot provide adequate nutrition for its people and is heavily dependent on imported grain and food aid. In 2005 and recently in 2010, the population faced a severe food crisis, following a decline of about 13% of agricultural production in 2009 due to drought in 2004 and 2009 (malnutrition affecting approximately 32% of the population).

This increases the vulnerability to climatic and Niger may seriously jeopardize its future. Despite significant efforts by the government and its partners to overcome this problem, it is clear that the results remain weak. Evidenced by the food crisis experienced by the country in 2009-2010, which is compounded by the recent floods. Moreover, this situation contributes to the resurgence of agricultural and pastoral practices inappropriate, abusive use of bush fires, agricultural colonization of 'buffer zones' to pastoral or reduction of fallow in the context of agriculture more extensive

Climate variability/change and trends

The country's climate is tropical semi-arid, characterized by two main seasons: a dry season from October to May and a rainy season from June to September. Besides the fact that they are unevenly distributed throughout the year, the average annual rainfall is also unevenly distributed across the country are very low in the North, and more abundant in the South, and they help define overall four agro-Climate.

- The Sahel Sudan, which represents about 1% of the total area of the country receives 600 to 800 mm of rain per year on average, is conducive to crop and livestock production.
- The Sahel region, which covers 10% of the country receives 300 to 600 mm of rain per year on average, is conducive to agro-pastoralism.
- The Sahel Saharan Africa, which accounts for 12% of the land area receives 150 mm and 300 mm of rain per year on average), is conducive to pastoralism.
- In the Sahara, which covers 77% of the country receives less than 150 mm of rain in an average year, we practice irrigated agriculture and nomadic pastoralism.

The vast majority of the population lives in the two areas Sahelian and Sudano-Sahelian (about 75%) practicing a system of agricultural production (mainly rainfed, irrigated crops, but also in the valley of the River Niger and the Dallols) and agro-pastoral farming with dominance. The rest of the population (over 20%) practice different forms of agro-pastoralism (with pastoral dominance) in the Sahel-Saharan Africa (over 20%), and nomadic pastoralism in both areas Sahel-Saharan and Saharan .

According to studies in the NAPA framework, the evolution of the average temperature differences compared to the annual average for the period 1961-2007 indicates an increasing trend since 1993 in terms of maxima (Figure 2), and since 1986, what is the minimum (Figure 3).

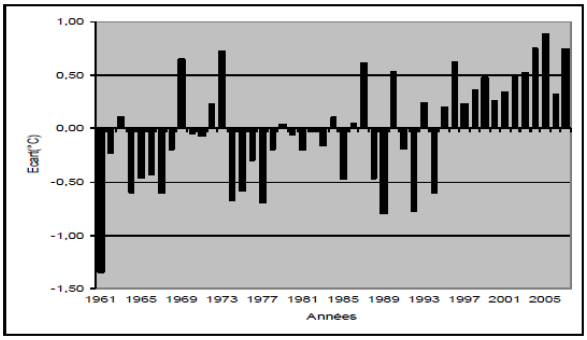

Figure 2 : Evolution of the annual maximum temperature differences under shelter compared to the average over the period 1961 to 2007 in Niger Source: Direction of National Meteorology, 2008:

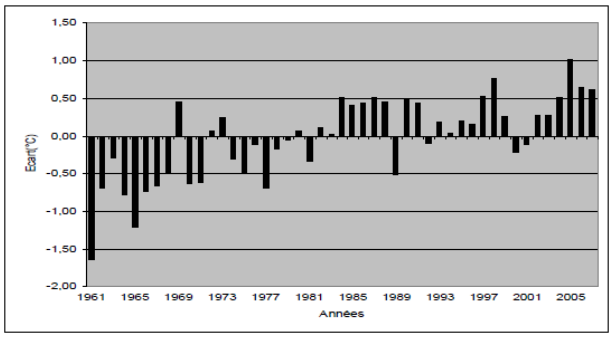

Figure 3 : Trends in differences in the annual minimum temperature under shelter compared to the average over the period 1961 - 2007 in Niger. Source: Direction of National Meteorology, 2008.

Projections indicate an increase in average maximum temperatures up to 2.5 ° C by 2020 to 2049. It is observed on all stations that such increased daily maximum temperature is less pronounced in the months of June, July, August and September corresponding to the rainy season. Minimum daily temperatures will also experience an increase of up to 3.5 ° C on some stations.

As for rainfall, studies based on data from 59 stations from 1961 to 2004 show a downward trend over the past three decades. The development of deviations from the average compared to the average over the period 1961-2007 (Figure 4) shows a clear increase in the frequency of years of losses since 1970, with seven major drought years and three episodes deficit framework (1969-1974), (1981-1988) and (1995-1999).

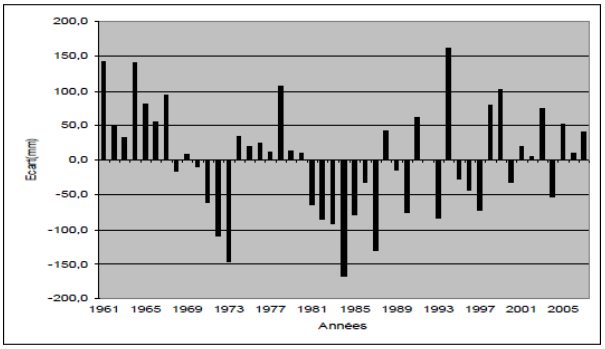

Figure 4 : Trends in differences in annual rainfall compared to the average over the period 1961 - 2007 in Niger Source: National Directorate of Meteorology, 2008

In the context of current climate, there has been a trend towards a reduction in rainfall and an increase in temperature, as well as minimum maximum leading to: depletion of the rainy season (in the Saharan area), a shortening of the rainy season (especially in the Sahelian zone); severe flooding (especially in the Sudano-Sahelian), and in any area confused, an accentuation of climate variability (spatial and temporal) and unusual frequency of violent sandstorms (lithometeors).

Climate change projection

In terms of climate projections, there are currently two dissenting opinions. While the first opinion predicts a gradual desiccation of the entire Sahel region over the next decades, the second opinion suggests that a constant humidification process should lead to increased vegetative cover within the Saharan region.[1] However, according to a recent study carried out by the AGHRYMET regional center, the gradual desiccation

[1] IPCC/AR 4

of the western Sahelian zone has to be distinguished from the humidification of the eastern Sahelian zone[2]. Given the strong correlation between summer temperatures and precipitations, we can expect decreased rainfall concomitant with increased temperature in the horizon 2020-2049[3].

Major climate projections concern an increase in average maximum temperatures of about 2.3° C (B2 scenario) and up to 2.6° C (scenario A2) over the 2020-2049 period, and a small increase in rainfall, with intensification of heavy rains and their possible consequences[4].

Climate change impact on agriculture and water resources

The main direct and indirect impacts anticipated (2025) variability and climate change on development have been identified mainly in the PANA (2006) and confirmed in the Second National Communication (SNA 2009). On agriculture and water, we note:

- Agriculture: In the future, it will be difficult for agricultural production can ensure food security, given the fact that there is a clear gap between the food needs of a growing population and agricultural production likely.
- Water Resources: Climatic factors have an impact on: the lower flows, increased erosion, changes in the hydrological regime of the Niger River and its tributaries, the lower volume of water impoundments and dams as well as the decrease in groundwater recharge, increasing the magnitude and frequency of flooding and the deterioration of water quality.

Unfortunately, demographic projections which estimate the rise of people living in the country from 9 million in 2001 to more than 13 million in 2015, and the climatic ones that foresee a minimal daily temperature rise under shelter going up by 3.5° C in some stations by 2020-2049, give signs of a yet darker future. It is likely that permanent food insecurity and an increase in poverty will mar the future if the observed climatic trends persist.

OPTION TO ENHANCE RESILIENCE OF AGRICULTURE TO CLIMATE CHANGE TO SUPPORT FOOD SECURITY IN NIGER

As part of the participatory assessment of vulnerability and adaptation needs priority, the intensification of irrigated agriculture has been identified as the most common adaptation option within eight (8) regions in terms of food security.

However, the vulnerability of water resources presented above pose significant challenges to the control of irrigation water. Thus, irrigation is the alternative to mitigate the effects of climate variability and climate change is also facing problems with drainage.

In general, the methods of drainage water for irrigation in Niger are either human-powered or electric-powered (using motorized pumps or electric). For both, the challenges / constraints identified are mainly related to the high costs of operating costs (fuel costs). Indeed, for small-scale irrigation, difficulties / constraints identified include: (i) fetching water drainage due to the depth of the well, due to the drawdown of groundwater (recharging difficult due to the decrease of rainfall), or drying of surface water (pond ...) as and as the dry season advances due to evaporation, and (ii) the high operating costs for pumps (hourly consumption ranges from 0.75 to 1 liter with an average of daily operation of 10 hours). Producers reported a decline in groundwater level has a direct impact on the fuel consumption of motor pumps. In general, the share of the cost of water for irrigation motor is between 40% and 60% of total expenses. Costs for fuel and lubricants and repairs are the main items of expenditure to operate a pump. However, these costs should be as low as possible so that the producer has the necessary liquidity to meet daily to these expenses. These constraints / difficulties still do not mobilize the required amount of water for crop needs (some groups pumps are off). On the other hand, forecasts for the vulnerability of water resources does not seem conducive to the practice and development of irrigated agriculture as the main option for adaptation to climate

[2] Ali et al. 2008
[3] Second National Communication, 2009
[4] IPCC/AR 4.

change, where the interests of research solutions aimed primarily: (i) the implementation of good management and water control in the plot, and (ii) the reduction of energy costs while making it accessible everywhere on the site. From this point of view, innovative technologies related to irrigation (such as drip) based solar solutions seem to be adaptive.

It is in this context that the present project. It aims to the development of peri-urban and village market gardens and grain equipped with water-efficient irrigation system (drip-drop ...) made of solar energy.

PROJECT / PROGRAMME OBJECTIVES:

The main objective is to enhancing resilience of agriculture to climate change to support food security in Niger, through promotion of modern irrigation techniques.

The specific objectives are:

5. Enhancing stakeholders capacity on climate resilient irrigation systems;
6. Promote the setting up of efficient technologies to sustainably manage water resources and preserve soils of irrigated perimeters;
7. Reduce energy charges for irrigation.
8. Support diversification of livelihoods to improve income of farmers.

These objectives are in good line with those announced by Adaptation Funds[5] seeking to "reduce the vulnerability and increase the adaptation capacity to palliate the impacts of climate change, including the variability at local and national levels".

The project claims to be an experimental operation at the national level in the different regions of the country and is articulated around the following components: (i) Reinforcement of technical and institutional capacities of the adherent parties; (ii) Strengthening and building of irrigated perimeters; and (iii) Support to the preservation of the agricultural products and diversification of means of survival of the target populations.

PROJECT / PROGRAMME COMPONENTS AND FINANCING:

PROJECT COMPONENTS	EXPECTED OUTCOMES	EXPECTED CONCRETE OUTPUTS	AMOUNT (US$)	
			FA	**BOAD**
1. Enhancing stakeholders' te chnical and institutional capacities	1.1. The government decentralised technical services capacities are enhanced in order to analyze effects of climate change on food security in various areas of the country and to support the activities of the rural poor population	1.1.1. Enhancement of government local services on climate change and their impact on food security. 1.1.2. Training of the government local development officers on the use of technologies such as GIS, piezometric check-up devices etc , for monitoring changes in landscape and of water table level .	0,7 M	

[5] "Project Level Results Framework and Baseline Guidance Document" (AFB/EFC.4/3), proposed by the AF Ethics and Finance Committee in its 4th Meeting (Bonn March 16, 2011)

	1.2. The ability of communities to master and adopt agricultural practices and modern irrigation techniques to climate change is enhanced.	1.2.1. Sensitization and training of rural communities on threats related to climate change and the means of adaptation and resilience on food security 1.2.2. Training farmers in agricultural practices likely to secure sustainable soil and water resources. 1.2.3. Training of local technicians in installation and repair of modern irrigation systems (drip kits, Californian network ..) and photovoltaic systems 1.2.4. Development of adaptation plans integrated into local development plans and the signing of an agreement with the target communities ensuring an efficient use of both land and water		
	1.3. Lessons learned from the project as useful to local policies, are replicated at the national level and globally disseminated.	1.3.1. Documentation of lessons learnt and best practices in the framework of the project on adaptation to lower groundwater levels, and increased aridity in agro-ecosystems (agricultural ecosystems) of the selected sites (in the form of documents or multimedia). 1.3.2. Initiating dialogue with local municipalities, focusing on local best practices for efficient use of water in order to cope with the impacts of Climate Change. 1.3.3. Exchange of information and experiences through programs on community radio stations.		
2. Development of irrigated perimeter	2.1. The water management is strengthened and activities on soil conservation as well as water resources are established	2.1.1. Development of 80 new peri-urban and villagers gardening areas amounting to 20 ha each through the setting up of an irrigation network and the adequate equipment 2.1.2. Identification of pilot sites and planting varieties of utilitarian trees which better resist to climate in order to improve the system of local agro forestry	6,5M	
	2.2. Energy charges for irrigation are reduced	2.2.1. Equipment of new perimeters with solar pumping systems		6M

3. Support to the diversification of livelihoods and improvement of the farmers income	3.1. Access to agricultural credit is facilitated and activities generating extra-agricultural income are promoted	3.1.1. Support given to the beneficiaries of the first agricultural credit in the form of grants from local micro-finance institutions 3.1.2. Support to activities generating income identified in the target communities	1,5 M	
	3.2. Farmers' income is improved thanks to a better preservation of agricultural products	3.2.1. Distribution of equipment for conservation by solar system (solar dryers, solar cookers)		1M
Subtotal 7M 8.7M			8,7 M	7M
Cost for the project / program carrying out (5%)			0,435M	0,35 M
Total cost of the project / program (Adaptation Fund)			9,135M	
Costs of management of the cycle of the Project requested by the implementing institution (8,5%)			0,776M	
Financing plan	**Adaptation Fund**		**9,911M**	
	BOAD			**7,35M**
Total cost			**17,261M**	

Target areas and Beneficiaries

The target zones of the project were chosen according to the following criteria: (i) vulnerability in terms of food security (ii) the absence of other stakeholders on the field and (iii) the existing potential in mobilizing and irrigable land. On the basis of these criteria the intervention area determined, include the most vulnerable such as Boboye and Falmey in the Dosso region, Keita and Bouza in Tahoua region, Mirriah in the Zinder region and Kawar et Arlit in Agadez region. For a better impact of the project, efforts will be based in areas of high concentration of irrigated crops.

The project will directly affect approximately 3,000 producers directly and indirectly 30,000 people of which 51% are women.

Project's added value and synergy in relation to other initiatives in the country

This project will develop a holistic approach to address recurring problems that are faced by poor rural communities in terms of resilience to climate change in the context of growing food insecurity. These problems are related to: (i) the availability and management of water resources for irrigation and (ii) the cost of the drawing of water, which is a major factor limiting development of irrigation. Indeed, in a country under energy dependence, operating expenses related to the drawing water are important. In addition, electricity is not everywhere and the price of fuel continues to rise.

In this context, the approach proposed by this project through one hand promoting drip irrigation which consumes little water and provide the necessary amount of water needed for culture is adapted to limit the solicitation of groundwater and its recharge which is climate change problematic resulting from the decline in

rainfall and its unequal distribution in time and space. On the other hand, the diversification of the energy source that focuses on solar energy is a guarantee for the operation and solves the thorny problem of acquiring fuel. The use of this energy source anticipates the risk of non-operating perimeters due to uncontrolled costs of fuel prices constantly increasing.

This project is a pilot project to strengthen the resilience of populations and fight against what might be termed "ill-adaptation." Indeed, if the problem of expenses related to drawing water is not addressed concurrently with the management of water resources in a country where the cost of energy (electricity and fuel) remains prohibitive for the producers, kits and irrigation systems may not be used effectively.

In addition, the project will seek for synergy with other on-going projects in the country and benefit from their approaches.
To date, two major programmes in the field of building climate resilience of the population in order to increase food security are underway:

- the Community Action Project for Climate Resilience (CAPCR), approved in November 2011, which objective is to improve the resilience of the populations and of production systems to climate change, in order to increase national food security, and
- The PROMOVARE project by the AfDB, approved in September 2012

The proposed project will be implemented under the supervision of the Ministry of Agriculture and Livestock, which will ensure strategic coordination of all on-going activities related to irrigation, with the aim to avoid any duplication but merely to support synergy and complementarities among all activities in the selected areas.

These projects can have synergy with the present project. Its pursue a common goal of improving the resilience of people and agricultural production systems to climate variability and climate change. The activities take place in different localities. Ultimately, all these projects are complementary.

The table below shows some synergies with other initiatives

Activities of the AF project	**Possible synergies with PROMOVARE of AFdB and CAPCR of WB**			
	Enhancing stakeholders' technical and institutional capacities	Development of irrigated perimeters	Support to the diversification of livelihoods and improvement of the farmers income	Project Management
• Enhancing the government decentralised technical services capacities in order to analyze effects of climate change on food security and to support the activities of the rural poor population	X			
• The ability of communities to master and adopt agricultural practices and modern irrigation techniques to climate change is enhanced.	X		X	X
• Lessons learned from the	X			

project as useful to local policies, are replicated at the national level and globally disseminated				
• The water management is strengthened and activities on soil conservation as well as water resources are established		X		X
• Energy charges for irrigation are reduced				
• Access to agricultural credit is facilitated and activities generating extra-agricultural income are			X	
• Farmers' income is improved thanks to a better preservation of agricultural products			X	X

PROJECTED CALENDAR:

MILESTONES	EXPECTED DATES
Start of Project/Programme Implementation	October 2013
Mid-term Review (if planned)	October 2015
Project/Programme Closing	April 2018
Terminal Evaluation	October 2018

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Project components

COMPONENT 1. ENHANCING STAKEHOLDERS' TECHNICAL AND INSTITUTIONAL CAPACITIES

To increase the resilience of communities to climate change through water management for agriculture it is required to reinforce the capacity of stakeholders in the control and management of water. Indeed, the challenges faced by all those who are involved in irrigated agriculture in the above-described context in Niger are enormous: drying-up and water resources management, storage, and canalization and irrigation areas highlighted. In addition, we must take into account aspects related to storage of agricultural products ... To meet these challenges requires the acquisition of basic skills in this field by the beneficiaries. Also, new production techniques preserving the climate seem unfamiliar to people. When promoted, they must be transferred onto the beneficiaries through learning and special training which will enable them to appropriate the said technologies. Moreover, the implementation of such a project must be provided with all the efficiency and effectiveness required by stakeholders to be mobilized for this purpose. this part of the project answers to this purpose and aims first of all to enhance the capacity and skills of decentralized technical services of the State (Ministries in charge of agriculture and livestock, radix development...) to analyze the effects and threats of climate change, to enable them to mobilize and assist communities to undertake their own analysis of the impacts of climate change and adopt efficient techniques that will be identified.

For the reinforcement of the capacities of various stakeholders, two stages are recommended, we have the first stage which concerns the direct beneficiaries (farmers) through direct support and their umbrella organization and the second one which consists of technical supervision through the decentralized technical services. Various forms of support will be provided and training will be given accordingly. As far as supervision is concerned, a team of experts and private consultants will be consulted and decentralized services of technical ministries will be resorted to.

On the other hand, this part of the project will support the reinforcement of capacities of communities to enable them to prepare detailed adaptation plans, including plans for harmonized livestock, land, water management and overall use of natural resources, which will be integrated into their local development plans. This will contribute to the desired effect No. 3 of the Initiative 3N on "*Improving the resilience of vulnerable groups to climate change.*" This is an important recommendation for which was identified as a guarantee of success for the implementation of adaptation measures in the Niger PANA[6] (CNEDD, 2005).

Effect 1.1. The capacity of decentralized technical services of the government are reinforced

The technical services of the Ministry of Agriculture will be reinforced to enable them to analyze the effects of climate change in association with food security, livelihoods and vulnerability indicators. This will allow them to monitor local development, mobilize and support communities.

To do this, training and sensitization will be organized at local and national levels. At national level, the plan will be based on the participation of public and non-governmental organizations (NGOs, associations of grassroots development ...). The training will focus on the need to harmonize the methods and approaches to irrigation in different localities, reinforce coordination between the different actors, and improve the outcomes. The project will reinforce approaches taking into account the characteristics of different agro-ecological zones, the density and spatial distribution of the population (including the rate of poverty) and the capacity of the State to react at regional and local levels.

Actually, according to the management strategy, potential beneficiaries submit their projects to the communal project selection Committee. It is the local Committee that sends the selected projects to the national structure of Coordination. When the beneficiaries of the present project will be in the same zone with the World Bank and the AfDB funding ones, they will follow the same procedures to avoid duplicates. Discrimination criteria will bring projects eligible for the adaptation fund. For example, these criteria could be the high cost paid by the beneficiary for the drainage of the water, the failure of the recipient to buy fuel to ensure the drainage of the water, the irregularity in the availability of fuel for the gasoline pumps. In this case, the coordination unit of the present project can control the complementarities of the project submitted before financing it.

The project will also back up the reinforcement of capacities of State agents in the use of tools for checking-up changes in resources (land, water ...) such as technologies SIG, the level of water table piezometric check-up devices etc.. Indeed, the objectives set by the Initiative 3N in this, and the related plans and strategies, require technical capacity to collect, analyze and use relevant and updated information, including at local level. This is particularly important for local services of the State which must communicate with communities, mobilize and provide them expert services in the sustainable management of natural resources and preservation of the environment.

Effect1.2. The ability of stakeholders to understand and adopt agricultural practices and modern irrigation techniques to climate change is enhanced.

The trained technical services of the State will elaborate and implement a public awareness campaign to inform communities of the threats of climate change and some adaptation options. They will work with local communities through participatory workshops, will pay a particular attention to the threat climate change poses to production systems, management of water and food security and nutrition. A gender perspective will be integrated into all sensitization campaigns and training. The project aims to ensure that at least 50 percent of community members trained are women.

[6] CNEDD : Synthesis of the adaptation measures, September 2005

Farming techniques and extension themes will focus on the use of hybrid maize and crops with high added value (market gardening are to be maintained), the establishment of a production plan setting out right from the beginning of the agricultural season the allocation of the cultivable surface on the basis of the targeted speculation, the respect of the farming season planning as well as crop rotations recommended and rational use of organic manure and fertilizers.

Effect 1.3. Lessons learned from the project are useful to local policies, replicated at the national level and disseminated globally.

Interesting results are expected from the implementation of the project with respect to the techniques and adaptation to climate change. The effects of climate change will affect all sectors and constitute a serious impediment to the development of Niger. It is also important to spread the benefits of this project on policy plans, programs and projects related to agriculture. In the framework of this project which is initiated as a pilot operation at the national level, a wide documentation of lessons learned and best practices will be available and dispatched to all decision-making levels (local, municipal, regional, national) in order to take into account climate change in the formulation of national and local policies and strategies.

An ongoing dialog with the local authorities, based on local best practices for efficient use of water will be initiated in order to cope with the impacts of climate change. The information will be disseminated and shared experiences through programs on public and private media (including community radio stations).

COMPONENT 2. DEVELOPMENT OF IRRIGATED PERIMETER

In Niger, 90% of the population is rural and derives most of its income from agricultural activities. Agriculture is mainly pluvial because only 1.86% of the arable land is irrigated or 1/3 of the identified irrigation potential in the country. However, pluvial agriculture has become uncertain owing to the scarcity of rainfall, its poor distribution and land degradation. Also to ensure a successful agricultural campaign, one uses irrigated agriculture. Between the two modes of production, i.e., pluvial and irrigated, the difference in crop yields ranges from simple to triple or even quadruple. Moreover, the irrigation allows several agricultural campaigns per year, regardless of the rainy seasons. Unfortunately, irrigation techniques commonly practiced requires a great deal of water and energy. And water sources (groundwater, ponds, and rivers) are often made use of while their survival is problematic because of the scarcity of rainfall and their solicitude.

In the current context of high climate variability, achieving Goal No. 1 of the Millennium Development Goals (MDG 1) of reducing extreme poverty and hunger necessarily requires the effective management of water for agriculture. Also, the control of water has become a major objective in Africa-wide and sub-regional with PDAA / NEPAD, ECOWAP and PAU. Food crises of 2005, 2010 and those that lie ahead for the future reinforce the awareness-raising of the authorities and people of Niger on the importance of irrigation. It is for this reason that the project aims to promote through this component efficient techniques of irrigation in terms of water and energy.

Effect 2.1. The water management is reinforced and activities of soil conservation and water resources are established

The project aims at reinforcing water resources management through the deployment of appropriate irrigation systems. Experience has shown that when the technology is mastered by the producer who remains at the last resort master of decisions related to his/her initial investment and who freely decided of the production cycle, the performance of irrigation, whether formal or informal, is the best. Performances of small-scale irrigation development in the fight against poverty and food insecurity have been proven in the past by the PPIP program and PIP2 in Niger and the FAO Food Security projects through the development of small-scale irrigation financed by various multilateral sources (FAO, IFAD, EU).

In terms of technology, as it is often the case in most of these initiatives, the system of drip irrigation and

variances seem more appropriate to be introduced. The promotion of drip irrigation which is water-saving and by so doing brings the necessary quantity of water required by the culture to the farming needs is adapted to limit the request of groundwater of which the recharge is problematic due to climate change resulting from the decline and poor rainfall distribution in time and space. It offers the following advantages: (i) water saving due to the contribution of the quantity of water needed by the plant contrary to furrow irrigation / flooding where water is supplied at will depending on its availability without any control. A saving of 2/3 of the quantity of water can be made, what reduces the request / levy of groundwater / water source, (ii) ensuring the sealing off of the farming cycle even in years of poor rainfall (iii) the appropriate composition of the fertilizer which has a direct effect on the environment because of its solubility which does not allow the formation of breastplate (due to crusting interspaces between plants), (iv) energy savings due to the reduction of the amount of water needed, and (v) control of the system of putting under grass, which saves time for women, time that can be devoted to other economic and social activities.

The project proposal includes two types of adjustments composed of community polycoles perimeters equipped with drip systems for maize and horticulture with a cropping intensity of 3 and irrigated rice and mixed farming for rice-growing perimeter and other cereals and horticulture in double campaigns (cropping intensity 1.8). The irrigated rice and mixed-farming perimeter will be powered by direct pumping from the river Niger and / or reservoirs. As far as the community perimeters are concerned, they will be supplied from deep wells, boreholes and wells gardeners. Irrigation techniques are flooded plots with total control of the water in terms of rice growing and mixed farming and drip on the community perimeters. Varieties of rice and other recommended crops will be those grown at similar perimeters. The hybrid variety of corn will be recommended in rotation with cowpea. Horticulture, crops hold by region and season will be in rotation with groundnuts. In rice-growing, the farming calendar will be spread over two seasons and farming techniques and themes to advocate extension will be among other things on the use of selected rice varieties with high yield, respect of farming calendar, the rational use of mineral fertilizers and organic manure if possible, weeding. As far as horticulture and maize growing are concerned, the farming calendar will run over three (03) campaigns.

Besides the levy limitation of surface water, interventions to mitigate the decline in groundwater levels involve the implementation of close protection measures of the sites of production. The project also aims at promoting, according to the necessity on beneficiaries' sites, activities of restoration of degraded lands to promote water infiltration into the soil and recharge groundwater through agro forestry practices, half-moons ... that have proven themselves in the past. On the other hand, the delimitation of protection areas around reforested ponds and the perimeters' protection through the wire fence reinforced by forest species are all planned actions that contribute to the preservation of ponds and gardening areas of silting. Reforestation and delimitation of protected areas ponds will be conducted by the beneficiaries under the supervision of both branches of rural engineering and the environment. The plants will be provided by groups of young women / private nurseries supported by the services of the environment.

Effect 2.2. Energy bills linked to the dry up of water are reduced

The diversification of energy source which favours solar energy is a guarantee for the exploitation of all developed areas and by the same token solves the thorny problem of acquisition and transportation of fuel, the major constraint optimal exploitation of the irrigated areas. The use of this energy source anticipates the risk of non-operating perimeters due to uncontrolled costs of fuel prices constantly increasing. The solar energy is suitable for continuous operation of pumping equipment. This energy has the following advantages: (i) Niger possesses solar energy with effective sunshine time 10 hours daily, (ii) it eliminates costly transportation due to the size of the country, (iii) maintenance and operation costs are virtually reduced to nothing, (iv) the supply of energy is permanent and crop cycles are brought to term; also energy supply disruptions due to fuel and / or pump generating set breaks down also is zero, what guaranties the agricultural campaign (v) the throwing out of gas which heats the air is avoided. In total, solar equipments, in addition to the economic benefits they offer, contribute to the reduction of gas emissions contributing to global warming.

The project consists of the arrangement of peri-urban and village market gardens as well as cereal perimeters equipped with water-efficient irrigation system (drip system ...) based on solar energy.

Solar Pump initiatives exist in Niger in particular on the hydro-agricultural perimeter of Karma and mini projects

of drinking water supply. Regarding solar pumping of Karma, it was a test to see how to reduce energy costs on large areas. The entire solar program has experienced difficulties due to:

Difficulties encountered	Measures in this project
1. Inaccessibility of equipment due to a relatively high share of the cost and their unavailability in the local market,	Many actors are being settled in Niger and the solar equipment market is under development. Calls for tenders will be launched at the international level for the supply of solar equipments.
2. the low capacity of actors to ensure the proper use and maintenance of such technology,.	Artisans will be trained at the national level for the installation and repair of solar equipment
3. Acts of vandalism perpetrated. It is mainly the theft of panels that led to the shutdown of several mini water supplies	An agreement will be signed with the groups to ensure continuous monitoring of equipments installed.

COMPONENT 3. SUPPORT TO THE DIVERSIFICATION OF LIVELIHOODS AND IMPROVEMENT OF THE FARMERS INCOME

Effect 3.1. Access to agricultural credit to adopt irrigation techniques is facilitated and promoted - activities generating income are developed off-farm

It is important that farmers' beneficiaries of the project have the financial capacity to invest in and adopt the proposed techniques. The Government of Niger has adopted a framework law on Public-Private Partnership (PPP), which should allow access to significant resources for investment in favor of modernization of agriculture. In addition to funds rising, the PPP can also promote the realization of investments, transfer of knowledge and technology, job creation and exploitation of natural resources. In this context, measures are being taken by the Government of Niger to support the micro-finance sector to improve its credibility and increase its capacity. On the other hand, the Agricultural Bank (BAGRI) represents an opportunity for livestock farms and agro-industrial units to have access to financing for infrastructure investments (land adjustment, facilities, rural infrastructure, etc...) or to increase funds turnover (purchases of inputs for producers and agribusiness units, marketing...). As part of the revival of agro-pastoral, the BAGRI granted in May 2011, a credit line of CFA Frs 1 billion to farmers and pastoral. This project intends to support efforts in place and facilitate access to agricultural credit to farmers. The credit is that of campaign which will be granted by microfinance institutions on their own resources. Given the limited financial capacity of operators, their contribution to the achievement of the first credit will be provided by the project in the form of grant through existing micro-finance institutions.

The analysis of the situation of access to financial services in the project intervention area, there are various financing schemes such as Micro Finance Institutions (MFIs) which have experienced significant growth in recent years. However, these MFIs concentrate their activities in urban areas and are poorly represented in rural areas. The most active are mainly: i) Asusu Cii Gaba ii) Movement of Credit Unions Savings and Credit (MCPEC) (iii) SICR-KOKARI and (iv) Kaani. It was reported a need to increase financial resources for lending in the short and medium term. This project aims to provide support in this direction. The micro –credit will be managed with the rural microfinance institutes. There wiil have contracts between these institutes and the project management unites. These contracts will specify how the total of reimbursement will be used to other microcredit to enhance adaptation activities after the end of the project.

On the other hand, people from Niger receive from natural ecosystems supplements food and cash incomes that are not to be overlooked in the search for nutritional security and resilience to climate change and other disasters. Hundreds of plants, herbaceous or woody species are subjected to more or less intensive exploitation for food, social or economic ends. In urban centers, the marketing of non-timber forest products allows women and children to earn money and to part of the workforce to create jobs. In some rural communities, the income from the marketing of non-timber forest products represents up to a third off-farm income.

The project will support generating income activities in each locality recipient to enable farmers to diversify their livelihoods to increase their resilience capacity to climate change effect. Activities to be undertaken will be related to the needs expressed by women's and youth's groups. They will be implemented with technical services depending on their areas of expertise.

Effect 3.2. Farmers' incomes have improved through better conservation of agricultural products

Farmers are often faced with the loss of crops and consequently their income for reasons of preservation. Also, drying remains one of the cheapest options for storing agricultural products. In Niger, many improvements are made to traditional drying systems to keep products longer, improve their quality and thus provide additional income to farmers. The project aims to contribute to the dissemination of drying techniques which outperform traditional drying, such as solar dryers with low-cost, for domestic or semi-industrial use in beneficiaries' communities. In rural areas where there are few opportunities to sell agricultural surplus at a good price and where transportation costs are high, the dried products can be a significant source of revenue and the promotion of solar drying an economic development tool for these remote areas.

B. Economic, social and environmental benefits, with particular reference to the most vulnerable communities, and groups within communities, including gender considerations.

The benefits expected from the implementation of this project are significant and diverse for communities:

From an environmental perspective: The request for water resources will be reduced; fertilizers will be brought to the roots of the plant in liquid form, what prevent the formation of crusts and soil saltiness. Moreover, discharges from waste oil and fuel during transport (in case of accidents) and emissions of greenhouse effect gas resulting from the use of fuel will decrease significantly (climate change mitigation). Reforestation of protected ponds areas, protection of mixed-farming perimeters of hedges and planting fruit trees are all actions that restore the flora. The diversification of crops including leguminous plants (groundnut, cowpea, maize) will help restore soil fertility.

In economic terms: The project will contribute at the micro level, to increase the productivity, production and the income from operations will significantly improve household food and lessen their money shortage; at the meso level, to the food availability at lower costs, what will inevitably improve the access of the poor to food; at the macro level, to stabilize the market and economic activity with the satisfaction of domestic and foreign demand in products derived from irrigation.

At the social level: Women and young people represent the largest component of vulnerable groups and are mainly involved in agricultural activities. On the one hand, focusing on motorized irrigation and the reduction of energy costs, the project will contribute to reduce the drudgery, time and financial resources devoted to solve the problems of water dry up. The clear weather will allow them to get involved in other economic activities and to focus on family responsibilities, the financial resources thus saved could be invested in children's education.

Gender consideration

Capacity building will be particularly beneficial to women and youth, offering them a privileged opportunity to participate in an activity as well as men and enhance their level of organization. Specific actions for women are well for garden crop, developed land, ovens and solar dryers, agricultural extension, mentoring groups, work on water conservation and soil and planting trees. Women's participation in management committees and structures in their groups will be better able to manage the technical development of soils CES / DRS, maintain rural infrastructure, to acquire inputs and commercialize products. The project will contribute to the security of land tenure for women by its actions to support the implementation of the management structures of rural land

C. Analysis of the cost-effectiveness of the proposed project

Several alternatives were analyzed during the preparation of the project. The results of these analyzes show that one of the major adaptation options to climate change envisaged by many young people living in rural areas is migration (rural exodus or migration) in search of a permanent or temporary job . Indeed, given the decline in rainfall, its poor distribution in time and space and also the decline in soil fertility, pluvial crops become random, uncertain and insufficient production from year to year to meet the growing needs of families. This extends to the lean period. As a solution to this critical phase of the year, families rely heavily on "exodus goers" who are now obliged to leave their communities earlier and to stay longer in order to have income. However, poverty is also increasing in urban areas and opportunities for employment and income are more and more becoming rare. In addition, opportunities to migrate and find employment abroad are too limited (notably due to economic difficulties in European countries) and the migrations are often undertaken illegally, exposing the lives of these migrants to danger. In addition, this deprives the country of a valuable labour force.

For those who stay back, the development of agriculture, particularly irrigation's innovative technologies seem to be the best adaptation option, in the light of feedback from experiences of some irrigation projects in developed countries in the past. This project, designed on the lessons learned from these past experiences, reveals a good relationship in terms of cost and effectiveness for several reasons:
The project will use an approach based on the community mobilization, sensitization and training. This approach involves people in the management of natural resources (especially water), the social needs satisfaction, the promotion of income-generating activities and will contribute globally to the improvement of food security and welfare. Community participation is an appropriate and relevant approach when it is properly executed and will be the most effective way to achieve results on a large scale in the country.

The project will support small-scale irrigation and hence, will help increase the incomes of the population. Like the previous projects aiming to promote private irrigation in the country such as PIP2 where incomes per hectare were at least ten times higher than those earned from the millet-grown hectare in pluvial system, significant effects on irrigated crop yields are expected. Beneficiaries can earn substantial gains due to only small-scale irrigation activities, which ensure their food security during the lean season. A significant impact in terms of remuneration of the working day, following the lower expenses, increase yields and incomes is expected.

The improvement of irrigation efficiency is conditioned by a reduction of the time spent on irrigation and the lowering of expenses destined to the dry up. The choice of a technique such as the drip is cost-effective. The drip improves distribution (irrigation ramps) and water applying to the plot (dripper flow by less than 1 liter / hour), especially by reducing the quantity of water supplied to the plant. Its efficiency is 90% to 95% against 40 to 50% for surface irrigation and 70% to 80% for spraying. Practice shows that the irrigation water requirement in the real drip system is 4400 m^3/ha either 4mm/jour against a need of 10 000 to 14 000m3/ha for other types of irrigation.It is a very effective technique, but unfortunately a bit too expensive for farmers to invest, but very economical to operate. Originally the drip irrigation kit was designed to enable the poorest producers to purchase on equity capital the best suited kit to their means, but the high cost of purchase is nonetheless the first barrier to the diffusion of this technology. Profitability of the whole drip irrigation system increases with increasing number of kits that can be maintained from a single drilling and a single motor- pump. In addition, a single tank can supply several kits drip of 500 m². The project will therefore develop alternatives to reduce the cost of kits drip irrigation, the first barrier to diffusion, while maintaining product quality and providing a range of kits that can meet the needs of producers: adjustable kits depending on the type of crop (arboriculture, market gardening), capillary irrigation allowing a precise irrigation of a plant, a flat sheath.

As far as "reducing energy bills related to irrigation," is concerned, tests on the use of agro-fuel (Jatropha oil) were conducted by EWW (DIPAC). The short-term experiment has failed on several campaigns to determine the reliability of the motor- pump modified for an operation with jatropha oil. In addition, the problem of supply of jatropha seeds must be resolved because it is a major constraint. Finally, the price of a litter of agro-fuel was close to the price of diesel.

In this context, the solar pumping is in terms of cost / benefit offered, the best alternative energy source to operate the submerged motor-pump. This technical method is rarely resorted to because of its high initial cost, about 2 million F CFA / ha (ICRISAT 2009). However, the annual cost of pumping for a solar system is four times less than the cost of a motor- pump: 250 000 Fr CFA / ha and 1,000,000 F CFA the solar pumping. The lifetime of the solar equipment (8-10 years) and the lack of operating costs explain this gap[7].

A comparative analysis between the power source and solar energy supply from pump units revealed the following, being understood by the choice of the type of irrigation and other items of investment and expenditures remain the same. This study for a module of five (05) acres and over a period of twenty (20) years following results at constant prices: investment costs amounted to 16 million FCFA for the solar system against 5 25 MF CFA for GMP and operating costs are respectively 15.2 million and 60.8 million FCFA four (04) times the cost of operating the solar system. Thus the choice of solar will suffer no challenge despite the relatively favorable assumptions GMP with a lifetime holding three (03) campaign against a double life observed in local conditions three and a half years with an annual campaign and an acquisition cost of the lowest GMP whatever the total dynamic head (TDH) .

Comparative study of the energy system for a module of five (05) acres based solar-based fuel

(x1000 F CFA)

	Yr1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Yr 16	Yr 17	Yr 18	Yr 19	Yr 20	Total
Solar system																					
1. Investment	8000										8000										**16000**
2. Maintenance (5%/Yeear)	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	8000
3. Operation (security)	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	7200
Total	8760	760	760	760	760	760	760	760	760	760	8760	760	760	760	760	760	760	760	760	760	**31200**
Pump unit																					
1. Investment	750			750			750			750			750			750			750		**5250**
2. Maintenance (10%/cycle)	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	3000
3. Operation (fuel)	2890	2890	2890	2890	2890	2890	2890	2890	2890	2890	2890	2890	2890	2890	2890	2890	2890	2890	2890	2890	57800
Total	3790	3040	3040	3790	3040	3040	3790	3040	3040	3790	3040	3040	3790	3040	3040	3790	3040	3040	3790	3040	**66050**

The following considerations were taken into account in the analyzes:

- The solar pumping is a pumping which depends greatly on sun and as such provides water from ten o'clock in the morning to five o'clock in the evening, at times we do not usually irrigate. For that, the intermediate storage tanks are needed and their costs are added to the costs of the setting up of the pumping system.
- The management of a solar system requires, in case of breaking down, to have a nearby competent technician. This factor is integrated into the component 1 of the project for training and the reinforcement of capacity of local technicians.

Finally, the analysis of the proposed approaches to support farmers and help them improve their incomes through the dissemination of solar dryers' shows that they are cost-effective, for the use of solar dryers allows improve the traditional method of drying agricultural products, at the sun and in the open air: harvest losses are considerably reduced.

D. The project consistence with national or sub-national sustainable development strategies, including, where appropriate, national or sub-national development plans,

[7] The validity of this comparison is not applied beyond the depth limit (7meters) of pumping of the motor-pump

poverty reduction strategies, sector strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.

The proposed project fits into the strategic framework of the initiative 3N (see description in Appendix 1.) especially its strategic program SP1 and Operational Program OP1, finds its justification in the need to (i) make profitable existing investments, (ii) promote technologies that adapt to climate change and (iii) contribute to food security.

With regard to the food situation in Niger, several policies and strategies have been developed and adopted by the Niger authorities, by which programs and projects have been implemented and / or are being implemented. They are namely:

Several national debates which challenged the earlier policies were organized during the period 1982-1991 among which we can mention: *the national debate on intervention strategies in rural areas held in* Zinder in 1982, *the national debate on Environment held* in Maradi in 1984, *the national debate on livestock held* in Tahoua in 1985. The main recommendations from reflections during these debates are:

- The need to take into account the strategies of producers in the elaboration and implementation of development plans and programs;
- The need to guide actions towards the restoration and preservation of an environment increasingly threatened;
- The adoption of a multidisciplinary and global approach, such as of soil development;
- The need to create a more incentive economic and legal environment.

The document on "*Guiding Principles of Rural Development policy for Niger*" adopted by Ordinance No. 92-030 of July 8, 1992. The five priorities of the new guidance contained in this document are the natural resource management, rural organization, empowering populations combined to the modification role of the State, the food security, the intensification and diversification of production and rural financing.

The "Complete National Food Security" program (MAG / E 1992) which the objectives are set by the Niger in terms of food security are available in great number quantity lays emphasis on the availability of foodstuff in terms of both quantity and quality, a stability to offer and assured access for all populations to basic foodstuff.

"The Economic Boost Program (EBP)" adopted by Law No. 97-024 of July 8, 1997 which makes of the upturn of the agricultural sector a key element of economic growth, together with the fight against poverty, represent the two priorities of the Priority Actions Program.

"*The Strategy of Economic Growth and the Fight against Poverty*" elaborated in 1998 defines the operational measures to be taken into account, based on the broad guidelines of the Boost Program for the Rural Sector, in the framework of sustainable growth of Agriculture. These measures affect institutional aspects as well as strategies to be implemented. The main institutional measures proposed are the followings:

- The creation of a single government department responsible for the issue of rural development;
- The decentralization of the administration of the rural sector with increased responsibilities and means of intervention and a transfer of qualified human resources;
- The redefinition of the roles of the various ministries involved in rural development issues in the implementation, the monitoring and the evaluation of the programs and projects;
- The regular and sufficient financing of agricultural research, popularization and training.

In early 2001, Niger has initiated the process of developing a Poverty Reduction Strategy (PRS), on the basis of a participatory and reiterated approach. This strategy was adopted in January 2002 by the Government of Niger and is backed by all development partners. It constitutes a federative framework of all sectional policies at the national level and the only document on economic and social development. However, evaluations of programs and projects implemented in the area, however, show a lack of efficiency and some significant gaps in the distribution of roles between the public and private actors, the coordination between the government of Niger and its development partners and even among these latter. As an answer to these concerns, Niger has

initiated the elaboration of a Rural Development Strategy (RDS), in order to give operational content to the PRS in this sector.

"*Rural Development Strategy*" adopted by Decree No. 2003-310 /PRN / MRA of November 14, 2003 aims to provide a framework of reference and coherence for all interventions related to rural development through a participatory, progressive and reiterated process involving administration officials, representatives of producers' organizations and the private sector, NGOs and development partners. The overall objective of the SRD is to reduce the incidence of rural poverty from 66% to 52% by 2015, creating the conditions for sustainable economic and social development to ensure food security of the population and a sustainable management of natural resources.
The SDR is reinforced by the National Strategy for the Development of Irrigation and Streaming Water Collection (NSDI / SWC) confirmed in June 2005. The general objective of this NSDI / SWC is to contribute to reducing the incidence of rural poverty by enhancing the contribution of irrigated agriculture in accordance with the guidelines of the SDR.

In addition to these strategies, Niger has a National Strategy for Micro Finance.

E. Describe how the project / programme meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc.

National technical standards required by the Government of Niger, including studies of environmental impact, laws and regulations related to water, the management of the land as well as guidelines for agriculture and irrigation codes will be taken into account. The international quality standards will be applied.

In addition, any proposal to BOAD is evaluated prior to any approval. Thus, during the evaluation, experts and stakeholders make sure that the project has been designed according to the required standards.

F. Describe if there is duplication of project / programme with other funding sources, if any.

To date, two major programmes in the field of building climate resilience of the population in order to increase food security are underway in the country, but there is no duplication with those projetct:

- the Community Action Project for Climate Resilience (CAPCR), approved in November 2011, which objective is to improve the resilience of the populations and of production systems to climate change, in order to increase national food security, and
- The PROMOVARE project by the AfDB, approved in September 2012

The proposed project will be implemented in different sites under the supervision of the Ministry of Agriculture and Livestock, which will ensure strategic coordination of all on-going activities related to irrigation, with the aim to avoid any duplication but merely to support synergy and complementarities among all activities in the selected areas.

Actually, according to the management strategy, potential beneficiaries submit their projects to the communal project selection Committee. It is the local Committee that sends the selected projects to the national structure of Coordination. When the beneficiaries of the present project will be in the same zone with the World Bank and the AfDB funding ones, they will follow the same procedures to avoid duplicates. Discrimination criteria will bring projects eligible for the adaptation fund. For example, these criteria could be the high cost paid by the beneficiary for the drainage of the water, the failure of the recipient to buy fuel to ensure the drainage of the water, the irregularity in the availability of fuel for the gasoline pumps. In this case, the coordination unit of the present project can control the complementarities of the project submitted before financing it.

G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

The project includes a component of learning and knowledge management (see Effect 1.4 of the Component 1). This component aims to the reinforcement of capacities of stakeholders and learning activities such as workshop / training exchanges and sharing experiences on agricultural techniques, production planning, farm management, market research, processing products and sub products ... Moreover, monitoring and evaluation activities and interest yield are planned in the implementation of the project. Replication of good practices does not make any doubt, given the many advantages under review and the income earned directly by the beneficiaries. Indeed, a similar operation was conducted in Senegal in the Matam region on the financing of the BOAD and has been replicated in the private area. In addition, it will be diffused widely in the context of a major national program in an active statement at the BOAD for its evaluation.

H. Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations.

The consultation process has combined three approaches:

(i) A literature review: Through this review, the context and the environment of the project are presented and the diagnosis established

(ii) Interviews with resourceful persons working in different departments and organizations involved in the country;

(iii) Field visits (potential sites and operating sites) and interviews with the beneficiaries population on the operating perimeters. The targeted goal through these interviews and site visits is to ascertain the different perspectives and approaches and to help meet the challenges that could likely be raised from the diversity of viewpoints.

I. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

Faced with climate uncertainty and fragility of ecosystems that characterize NIGER, irrigation and crop improvement through the use of rainwater collection techniques appear to be the most important factors to lay the groundwork for an economic and social development. Mobilization and control of water to meet the needs of irrigation and livestock become an imperative to be tackled in order to enhance food security and improve the cash income populations. The Government recognizes that the development of the country depends largely on its ability to better manage all its natural resources, by promoting a more holistic approach, more oriented towards the stakeholders, particularly rural communities.

“Niger's vision on irrigation development is to increase the contribution of irrigation to agriculture GDP to 28% by 2015 and thus contribute to the country's food security agenda. This calls for expansion of irrigation infrastructure with the possibility of introducing public private partnership in its development of management.

The various studies of mobilization Runoff conducted in several regions (Dosso, Tillabery, Diffa, Maradi, Zinder, Tahoua, etc. ..) have highlighted an interesting potential but under-exploited, in terms of flows surface and underground and have proposed to improve these waters by promoting the creation of new hydro-agricultural infrastructure (wells, boreholes, irrigated gardens, etc.).

However in such a country under energy dependence, operating expenses related to the drawing water are very important (up to 60% of revenues are for energy supply). Indeed, the cost of drawing water remains too high for poor producers, and thus is a major factor limiting development of irrigation.

Baseline situation

Without the proposed project, a key priority in the Government's efforts to support food security would not be achieved in the targeted areas. Unsustainable coping strategies would continue and migration to urban areas. Economic opportunity would be lost. More people would permanently leave the area. Indeed, the current situation is characterized by among others: recurrent droughts; heavy dependence on rainfed farming and livestock; high vulnerability of production systems to climate-related hazards; rapid population growth (close to annual 3.3% rate), with ensuing heavy pressure on the environment; weak specialized structures and institutions; and continuing woodland degradation due to energy needs of the population. While on average food production meets 85% of domestic requirements, nearly half the population is estimated to suffer from chronic food insecurity, and in times of drought the country is heavily dependent on food aid, and there are outbreaks of famine. More than 50 % of the population suffers food insecurity, with 22 % of the population chronically extremely food insecure. Poor households, particularly female-headed households, are more exposed to shocks and seasonal variations in production, in response to which they often resort to negative coping mechanisms such as the sale of premature livestock and seeds. As a result, their vulnerability to future food insecurity increases.

In response to this situation of chronic food insecurity, governments that have succeeded have developed a number of policies and strategies which the last is the strategic framework of the Initiative 3N. Through this strategy, the authorities of the 7th Republic have the ambition to combat the chronic food insecurity in the program one of the first axis is the growth and diversification of production. One of the priorities of the Government is intensification and diversification of agricultural activities by providing rural producers, the infrastructure necessary to raise the level of production and income of the agricultural population with irrigation as a pillar. The objective is to increase the contribution of irrigated agriculture to the national agricultural production by 20% currently to 30% in 2015, increased acreage and yields. For this purpose, it is planned to develop all forms of water management to bring the area under irrigation of 85,000 ha to 125,000 ha in 2015. In this context it has been noted that currents initiatives in the country cannot cover all alone the priority needs. According to the Strategic framework "Initiative 3N" (2012-2015), the estimated costs of sub-programs and SPO2 SPO3 dedicated to the creation and development of new areas of irrigated land and the development of small-scale irrigation family, individual or collective are evaluated respectively at approximately $ 180 million and $ 400 million, a total of 580 million USD. However budgets of on-going initiatives in the country, including the PROMOVARE funded by the African Development Bank and the World Bank CAPCR are estimated at USD 28 million and USD 63 million, a total amount of USD 91 million (only 16% of the needs).

Adaptive alternative with the project

This project is part of the initiative 3N under its Strategic Program SP1 "Growth and diversification of production agrosylvo-pastoral and fisheries", which aims at promoting a more holistic approach, more oriented towards the stakeholders, particularly rural communities to support food security in Niger.

In such context, the promotion of drip irrigation consumes little water bringing the amount of water required for culture (component 2.1) is adapted to limit the stress on groundwater recharge which is problematic climate change resulting from the decrease in rainfall and maldistribution in time and space.

Diversification of energy source which favors solar energy (component 2.2) is a guarantee for the operation of all developed areas and solves the thorny problem of acquiring fuel major constraint to the optimal use of developed areas. The use of this energy source anticipates the risk of non-operating perimeters due to uncontrolled costs of fuel prices constantly increasing. Solar energy is suitable for continuous operation of pumping equipment.

The close supervision and monitoring to establish the institutional support and technical training and the

dissemination of technical packages (Component 1) are all actions that contribute to the proper management of facilities for obtaining the best results.

Delineation of protection areas reforested ponds, perimeter protection through the wire fence reinforced by forest species, micro-financing and income-generating activities. (component 3) are all actions that contribute to the sustainability of the project.

J. Describe how the sustainability of the project/programme outcomes has been taken into account when designing the project.

Sustainability of the project is based on the strong involvement of national stakeholders (ministries, civil society, private sector and beneficiaries) at all stages of its design. Its implementation will involve the participation of central and regional departments, community organizations, beneficiaries, NGOs and the private sector. Each player will contribute to a participatory approach where all activities will be undertaken in close consultation with beneficiaries. In this context, the actions of capacity building through technical and managerial training, mentoring of beneficiaries and the structuring of producer organizations will be conducted by the project through technical services and specialized NGOs.

So overall sustainability of the project depends on a proper implementation of sustainability measures put forward by the project: (i) the institutional support-support recipients by the technical services and NGOs (ii) strengthening of technical, organizational and management beneficiary organizations before and during the achievements of shares, (iii) training of auxiliary villagers planning to monitor the developments carried out (iv) extension of the promoted technologies (v) extension products stored in dried form, (vi) micro-financing and (vii) income-generating activities.

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PART III: IMPLEMENTATION ARRANGEMENTS

A. Describe the arrangements for project / programme implementation.

Work management and project management.

The manager of the project will be the Ministry of Agriculture. The contracting authority shall be vested to the General Directorate of Rural Engineering, which will give the prime contractor to the department responsible for land development and irrigation. This department will establish a project management unit that will be based on decentralized services responsible for monitoring activities through collaboration protocols. The contractor will seek the services of specialized consulting engineers and will be responsible for studying, monitoring and supervising the work.

Organization of the Project.
Two organs, the Piloting Committee (PC) and the Project Management Unit (PMU) will ensure the piloting and the supervision, the monitoring, the management and the implementation of the project. The organization and functioning of these organs will be specified by ministerial decree.

The Piloting Committee. It will be chaired by the Ministry in charge of Agriculture or its appointed representative and will include representatives of the people directly benefiting from the project as well as public and private institutions involved in the implementation of the project. Other partners to be identified at any stage in the implementation of the project could join on the basis of interests. Acting as supervisory and monitoring board of an operation pilot, the PC will be responsible for the direction, supervision of implementation and as well as the facilitation of inter-institutional coordination. It will meet at least twice a year, at the end of the first semester to take stock of the progress of PTBA and to review the annual activities report and the second meeting in the last quarter of the year for review and validation PTBA before its submission to donors.

Project management unit. As a department to be created by a ministerial decree, the PMU which will be equipped with a self-governed administrative and financial management will be under the supervision of the Board, prime contractor of the project. It will be equipped with the necessary staff including in addition to the director, the technical and financial and support staff. It will be responsible for the coordination of intervention of the project, the administration of contracts and *agreements, financial management and the monitoring-evaluation*.

Implementation of the project.

The perimeters readjustment activities and hydraulics will be made by the company. Training will be provided by the relevant technical services and / or external providers. Other operations (reforestation, AGR women, institutional support) will be carried out by the project management with if necessary the local technical services support (water and forestry services, agricultural engineering, hydraulics notably) on the basis of a draft agreement. Short term loans will be granted by financial institutions present in the area on their own resources, if necessary with the contribution of the beneficiaries of the project.

Investments, especially readjusted and rehabilitated perimeters, will be taken care of by the beneficiaries' organizations which will organize themselves for their efficient exploitation under the supervision of competent technical services advisory and for their upkeep and maintenance. A network of maintenance technician's craftsmen will be established in each concerned administrative region to ensure the monitoring and the upkeep of solar equipment.

B. Describe the measures for financial and project / programme risk management.

A detailed analysis of the financial framework and risk management of the project will be developed during the elaboration phase of the complete project document and it will be specified in the Manual of procedures and operations to be agreed with key donors such as the BOAD.

For financial risk management, the framework to be put in place should take into account the terms of budget management and fiduciary that governs the operation of public sector institutions and agencies under the Government's financial laws. The procurement policy of the government, as well as the Adaptation Fund and the financial management requirements of the BOAD will be incorporated into the framework. The following table shows the project risks

Table: Risks matrix

Risks	Level	Mitigation measures
Reluctance to apply the acquired knowledge and practices on the adaptation to climate change	average	Sensitization and training provided by the relevant organs identified by the project.
Low participation and involvement of decentralized public services	low	Establishment of committees to implement the project at both regional and local levels
Failure of activities coordination due to conflicts of interest between stakeholders	low	Establishment of a consultation platform on the project of both information and the know-how sharing between the various stakeholders
The emergence of constraints related to land ownership in the selection of sites to be reforested	low	Incentives to landholders who agree to participate in the reforestation program

C. Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan. Include break-down of how Implementing Entity's fees will be utilized in the supervision of the monitoring and evaluation function.

A mechanism for monitoring and evaluating the project activities will be implemented to assess progress in lines with the objectives and outcomes identified in the project document. It will identify the strengths and weaknesses in order to make informed decisions at appropriate time. The monitoring will focus on the implementation of project activities and will be based on the measurement of progress at each critical stage of the process. A first level of monitoring is entrusted to Technical Committee of the Piloting of the Project composed of several actors (Officials and non- Officials concerned by the project). In each economic region of the country, the Regional Sustainable Development Committee will take over of the monitoring to ensure the smooth progress of the project activities. Periodically, the Planning Division of the Ministry in charge of Agriculture will conduct monitoring and evaluation missions, produce reports on the level of implementation of the recommendations of the technical committee of piloting. One of the monitoring tools will be the work plan and an annual expenditure that will be validated by the technical committee of piloting.

In the implementation, a permanent community-based support will be provided to the stakeholders. Concerning targeted sites, Committees or Village Associations and other existing decentralized environmental protection local structures will be equipped with simple tools of participatory monitoring and evaluation enabling them to monitor and evaluate by themselves the project actions during and after its execution.

Monitoring and evaluation will be done through:

- Assessment meetings and programming with stakeholders;
- Weekly reports, monthly, quarterly and annual reviews at the project team level;
- Field visits.

Annual Evaluation: Annual evaluations that involve project management unit, the Piloting Committee of the project, the executing agencies and the representatives of beneficiary communities will be conducted. These evaluations will lead, under the supervision of the Director of Planning together with the Project Coordinator to the elaboration of annual progress reports, including recommendations to be submitted to the Project Piloting Committee for adoption. They will take into account progress towards goals, learned lessons, risk management, implemented budgets and difficulties encountered. The monitoring conducted by the Project Management Unit will be supplemented by the financial supervision carried out by a competent organ.

Mid-term: It will be conducted independently and will focus on the effectiveness, the efficiency and the ownership of the implementation of the project. The report will highlight issues requiring decisions and actions,

and reports of the first lessons learned from the project design, implementation and management. It will be preceded by a detailed financial audit.

Final evaluation: it shall be made at the end of the project and will be based on the same approach as that of the mid-term. Recommendations should also be made on additional measures for sustainability.

Ex-post evaluation: It will focus on the sustainability of the project results and lessons learned, including best practices, cost estimates, by applying lessons drawn at the sectional and thematic levels for prospective elaboration of policies and future planning.

D. Include a results framework for the project proposal, including milestones, targets and indicators and sex-disaggregate targets and indicators, as appropriate. The project or programme results framework should align with the goal and impact of the Adaptation Fund and should include at least one of the core outcome indicators from the AF's results framework that are applicable[8].

To be developed in the complete project document.

[8] Please refer to the *Project level results framework and baseline guidance* for the Adaptation Fund's results framework and guidance on developing a results framework and establishing a baseline [add link here].

E. Include a detailed budget with budget notes, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.

To be developed in the complete project document.

F. Include a disbursement schedule with time-bound milestones.

To be developed in the complete project document.

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

RECORD OF ENDORSEMENT ON BEHALF OF THE GOVERNMENT[9]	Date*: (Month, day, year)*

REPUBLIQUE DU NIGER
Fraternité -Travail- Progrès
CABINET DU PREMIER MINISTRE
==========
CONSEIL NATIONAL DE L'ENVIRONNEMENT
POUR UN DEVELOPPEMENT DURABLE
==========
SECRETARIAT EXECUTIF

ADAPTATION FUND

Letter of Endorsement by Government

Niamey, le 05 Octobre 2012

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for "enhancing resilience of agriculture to climate change to support food security in Niger, through modern irrigation techniques"

In my capacity as designated authority for the Adaptation Fund in Niger, I confirm that the above national project proposal is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in Niger.

Accordingly, I am pleased to endorse the above project/programme proposal with support from the Adaptation Fund. If approved, the project/programme will be implemented by Banque Ouest Africaine de Développement (BOAD) and executed by the Department in charge of agriculture in Niger.

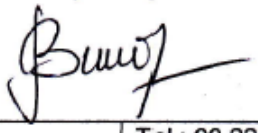
Sincerely,

Dr KAMAYE MAAZOU
SECRETAIRE EXECUTIF CNEDD
PRESIDENT AUTORITE NATIONALE DESIGNEE

C.N.E.D.D
BP : 10 193 Niamey
Tél : (227) 20 72 25 59/ 20 72 42 64
Email : biocnedd@intnet.ne

6. Each Party shall designate and communicate to the Secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

B. IMPLEMENTING ENTITY CERTIFICATION

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans ((i) the national strategic framework "Initiative 3N", (ii) the Second National Communication, (iii) the National Action Plan for Adaptation, and (iv) the National strategy for development of irrigation and collection of runoff) and subject to the approval by the Adaptation Fund Board, understands that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
Mr. Oumar TEMBELY, Directeur des financements innovants et structurés *Banque ouest-africaine de développement (BOAD)* Implementing Entity Coordinator 	
Date: *October 8th, 2012*	Tel.: 00 228 22 23 26 92 Email: otembely@boad.org
Project Contact Persons: *AMEGADJE Mawuli Komi* Tel.:00 228 22 23 26 57 / 00 228 90 04 62 54 Email: mawulikomi@yahoo.fr *Abdoul Ouedraogo* Tel.: 00 228 22 23 26 94 Email: aouedraogo@boad.org	

Appendix 1:

Initiative 3 N

L'initiative 3N « Les Nigériens Nourrissent les Nigériens » constitue un axe majeur du Programme du Président de la République pour la renaissance du Niger. Il est bâti sur les acquis de la Stratégie de Développement Rural et s'inscrit dans le processus de mise en œuvre du Plan de Développement Détaillé pour l'Agriculture en Afrique (PDDAA) et de la Politique Agricole Commune de la CEDEAO (ECOWAP) ainsi que la Politique Agricole de l`UEMOA (PAU). L'I3N permettra au Niger d'accélérer l'atteinte des Objectifs du millénaire, notamment l'OMD1 et l'OMD7.

L'objectifs global recherché est de **:** « contribuer à mettre les populations Nigériennes à l'abri de la faim et leur garantir les conditions d'une pleine participation à la production nationale et à l'amélioration de leurs revenus » et l'objectif spécifique : « Renforcer les capacités nationales de productions alimentaires, d`approvisionnement et de résilience face aux crises alimentaires et aux catastrophes ».

La mise en œuvre de l'I3N repose sur cinq axes stratégiques :

I. Axe 1 : Accroissement et diversification des productions agro-sylvo-pastorales et halieutiques.

L'I3N vient ainsi comme un catalyseur de la transition technologique en créant les conditions appropriées pour accroître significativement et durablement la productivité des systèmes de productions agro-sylvo-pastorales et halieutiques. Il s'agira pour cela d'investir des ressources conséquentes pour :

(i) améliorer la capacité productive des terres et des eaux ; (ii) généraliser l'utilisation de techniques et technologies, innovantes et adaptées aux réalités écologiques et socioéconomiques du Niger ; (iii) créer les conditions juridiques, institutionnelles et fiscales favorisant le développement agricole, la transformation et la modernisation des systèmes des productions.

II. **Axe 2 : Approvisionnement régulier des marchés ruraux et urbains en produits agricoles et agroalimentaires.**

Les investissements de l'I3N seront réalisés pour :

(i) La promotion de la transformation des produits agricoles et de production agroindustrielle afin de satisfaire une demande urbaine de plus en plus tournée vers les produits finis ; (ii) L'amélioration des infrastructures et des circuits de commercialisation y comprise l'exportation en contribuant à faciliter le transport des produits vivriers de base et réaliser pour les céréales, les plantes horticoles, le bétail et certains produits forestiers des infrastructures de marché.

III. **Axe 3 : Amélioration de la résilience des populations face aux changements climatiques, crises et catastrophes.**

L'I3N se propose de pallier aux insuffisances constatées dans la gestion des crises tout en améliorant la capacité de réponse des ménages et des communautés à la base face aux situations de déficit de production agricole ou pastorale et de catastrophes naturelles. Les mesures qui seront promues permettront de : (i) Améliorer l'efficacité des mécanismes d'anticipation et de coordination des interventions en situation d'urgence. ; (ii) Contribuer à apporter des réponses appropriées et adaptées dans les situations d'urgence notamment par l'accroissement des stocks de réserves nationales de produits agricoles et alimentaires et la création des conditions pour assurer un continuum urgence-relèvement-développement pour les groupes socio-économiques les plus vulnérables ; et (iii) Contribuer à l'élaboration d'un plan de gestion de risques intégrant divers types de risques auxquels font face les producteurs, les ménages et les communautés.

IV. **Axe 4. Amélioration de l'état nutritionnel des nigériennes et des nigériens.**

Pour l'amélioration de l'état nutritionnel, l'I3N prévoit des mesures et investissements visant à contribuer à : (i) La promotion de modèles de consommation alimentaire équilibrée, une bonne hygiène de vie en milieu rural et en milieu urbain ; (ii) La réduction de la prévalence des différentes formes de malnutrition à travers le passage à une échelle d'application plus grande de bonnes pratiques familiales essentielles ; (iii) La prise en charge efficace de la malnutrition aigue dans les situations de crises à travers l'amélioration des capacités de prise en charge curative (y compris le dépistage) des cas de malnutrition aigue (modérée et sévère); le renforcement du cadre institutionnel de la prise en charge de la malnutrition ; (iv) Le renforcement du dispositif de contrôle sanitaire des denrées alimentaires (chaine de froid, hygiène, etc..) et (v) Le renforcement du Système national de surveillance nutritionnelle et d'évaluation des interventions de nutrition (SNIS, sites sentinelles, SAP, les enquêtes de nutrition).

V. **Axe 5. Animation et Coordination de l'I3N.**

L'I3N se veut un cadre mobilisateur et fédérateur Aussi, Il s'agira de : (i) Maintenir un effort croissant et continu en matière de financement des investissements pour la sécurité alimentaire et nutritionnelle et le développement agricole à travers la mobilisation plus importante des ressources publiques et privées ; (ii) Assurer une Gouvernance et une coordination efficaces de l'I3N, à travers la mise en place de dispositif de gouvernance transparente, participative et inclusive, la mobilisation des communautés rurales et urbaines ainsi que les parties prenantes autour des objectifs de l'I3N et le renforcement institutionnel du haut Commissariat à l'I3N.
Les principes directeurs d'intervention de l'I3N sont : (i) la concentration des actions et appuis aux niveaux des communes, des villages agricoles et des exploitations familiales ; (ii) la prise en compte du genre et des groupes spécifiques dans toutes les actions ; (iii) le ciblage pour optimiser les investissements ; (iv) la durabilité de la base productive à travers la promotion des pratiques durables d'utilisation des ressources naturelles et l'adaptation aux changements climatiques ; (v) la mobilisation et la responsabilisation de tous les groupes d'acteurs, à toutes les étapes du processus de conception et de mise en œuvre, en prêtant une attention aux organisations des producteurs, à la femme et à la jeunesse.

La mise en œuvre opérationnelle de l'I3N reposera sur les cinq axes stratégiques qui sont traduits en cinq programmes stratégiques (PS) et 12 programmes opérationnels et sur un dispositif institutionnel dont les caractéristiques principales seront l'inclusivité, la coresponsabilité, la concertation et le dialogue permanents.

PS1 : Accroissement et diversification des productions agro-sylvo-pastorales et halieutiques
PS2 : Approvisionnement régulier des marchés ruraux et urbains en produits agricoles et agroalimentaires
PS 3 : Amélioration de la résilience des groupes vulnérables face aux changements climatiques, crises et catastrophes
PS4 : Amélioration de l'Etat Nutritionnel des nigériennes et nigériens
PS5 : Animation, coordination de l'I3N et impulsion des réformes

Appendix 2 : List of stakeholders consulted

N°	Nom et Prénom	fonction	signature
	GROUPEMENT TOUNNIBONSE DE GARBEY MALO KOIRA		
1	Fado Hamadou	Membre	Signé
2	Gambi Abdou	Membre	Signé
3	Zara Karimou	Membre	Signé
4	Nafissa Allassane	Membre	Signé
5	Issoufou Souley	Membre	Signé
6	Mariama Younoussa	Membre	Signé
7	Wassana Soumeïla	Membre	Signé
8	Sadé Issaka	Membre	Signé
9	Modi Seyni	Membre	Signé
10	Zara moussa	Membre	Signé
11	Balki Tahirou	Membre	Signé
12	Nafissa Moumouni	Membre	Signé
13	Amsa Younoussa	Membre	Signé
14	Biba Seyni	Membre	Signé
15	Gambi Noufou	Membre	Signé
16	Binta Allassane	Membre	Signé
17	Hayatou Seybou	Membre	Signé
18	Amina Zada	Membre	Signé
19	Safi Sina	Membre	Signé
20	Maïmouna Modi	Membre	Signé
21	Amina Seybou	Membre	Signé
22	Rabi Salifou	Membre	Signé
23	Alimatou Abdou	Membre	Signé
24	Fado Moussa	Membre	Signé
25	Dommo Halidou	Membre	Signé
26	Zongo Kéla	Membre	Signé
27	Ramou Abdou	Membre	Signé
28	Halima Hamadou	Membre	Signé
29	Haoua Sina	Membre	Signé
30	Oumoulkairou Sadou	Membre	Signé
31	Santou alpha	Membre	Signé
32	Salmou Halidou	Membre	Signé
33	Amina Hamadou	Membre	Signé
34	Yaou Malam	Membre	Signé
35	Binta Younoussa	Membre	Signé
36	Fado Mossi	Membre	Signé
37	Rachida Seyni	Membre	Signé

38	Fado Younouse	Membre	Signé
39	Oumoulkairou Amadou	Membre	Signé
40	Haoua Daouda	Membre	Signé
41	Dommo Hamidou	Membre	Signé
42	Aïssa Moussa	Membre	Signé
43	Aïssa Mamoudou	Membre	Signé
44	Aîssa Idé	Membre	Signé
45	AÏssa Sadou	Membre	Signé
46	Zali Issaska	Membre	Signé
47	Nafissa Siddo	Membre	Signé
48	Halima Souley Seybou	Membre	Signé
49	Kadi Billo	Membre	Signé
50	Gambi Djibo	Membre	Signé
51	Zeïnabou Idé	Membre	Signé
52	Rachida Adamou	Membre	Signé
53	Aïssa Seyni	Membre	Signé
54	Waramatou Seybou	Membre	Signé
55	Dommo Seyni	Membre	Signé
56	iDjamma Hamidou	Membre	Signé
57	Haoua HamaniF	Membre	Signé
58	Bouli Sanda	Membre	Signé
59	Kadi Yayé	Membre	Signé
60	Balki issoufou	Membre	Signé
61	Mariama Hamani	Membre	Signé
62	Hani Soumeïla	Membre	Signé
63	Safi Karimou	Membre	Signé
64	Fado Seyni	Membre	Signé
65	AÏssa Mamoudou	Membre	Signé
66	Waramatou Sina	Membre	Signé
67	Hamsa Yayé	Membre	Signé
68	Maka Hima	Membre	Signé
69	Biba Soumeïla	Membre	Signé
70	Gambi Seybou	Membre	Signé
71	Dommo Younoussa	Membre	Signé
72	Zongo Seybou	Membre	Signé
73	Bouli Tati	Membre	Signé
74	Biba Adamou	Membre	Signé
75	Sadi Sadou	Membre	Signé
76	Hadjara Moumouni	Membre	Signé
77	Fado Hamadou	Membre	Signé
78	Zeïnabou Abdou	Membre	Signé
79	Katimou Hamadou	Membre	Signé
80	Safi Seyni Seybou	Membre	Signé

81	Sadi Tahirou	Membre	Signé
82	Balki Seybou	Membre	Signé
83	Abou Seyni	Membre	Signé
84	Saïbata Sadou	Membre	Signé
85	AÏssa Sanda	Membre	Signé
86	Hamsa Bana	Membre	Signé
87	Balki Souley	Membre	Signé
88	Safi Younoussa	Membre	Signé
89	Lami Zakari	Membre	Signé
90	Katimou Daoudou	Membre	Signé
91	Hadjara Moussa	Membre	Signé
92	Mamou Tahirou	Membre	Signé
93	Haoua Ousmane	Membre	Signé
94	Santou Saley	Membre	Signé
95	Adama Annoure	Membre	Signé
96	Halima Souley Halidou	Membre	Signé
97	Safi Souley	Membre	Signé
98	Zara Hamani	Membre	Signé
99	Halima Illiassou	Membre	Signé
100	Naffissa Daouda	Membre	Signé
101	Aïssa Mounkaïla	Membre	Signé
102	Hadiatou Billo	Membre	Signé
103	Mariama Hima	Membre	Signé
104	Ramou Idé	Membre	Signé
105	Hadiza Yara	Membre	Signé
106	Mariama Issoufou	Membre	Signé
107	Hamsatou Mounkaïla	Membre	Signé
108	Fado Abdou	Membre	Signé
109	Lakayatou Illiassou	Membre	Signé
110	Amina Hamadou	Membre	Signé
111	Maïmouna Hamadou	Membre	Signé
112	Zara Mouhou	Membre	Signé
113	Zara Seyni	Membre	Signé
114	Hadiza Mounkaïla	Membre	Signé
115	Sawo Souley	Membre	Signé
116	Aïssa Mamoudou	Membre	Signé
117	Lakayatou Mounkaîla	Membre	Signé
118	Safi Daboudjé	Membre	Signé
119	Lobbo Daboudjé	Membre	Signé
120	Dommo Hamidou	Membre	Signé
121	Djariatou Idé	Membre	Signé
122	Manouratou Daouda	Membre	Signé
123	Tahannabi Daouda	Membre	Signé

124	Saouda Moussa	Membre	Signé
125	Nafissa Mounkaïla	Membre	Signé
126	Halima Sadou	Membre	Signé
127	Moumaï Yayé	Membre	Signé
128	Salmou Hamadou	Membre	Signé
129	Waramatou Sanda	Membre	Signé
130	Biba Abdou	Membre	Signé
131	Aïssa Harouna	Membre	Signé
132	Rabi Djibo	Membre	Signé
133	Ramatou Niandou	Membre	Signé
134	Salmou Harouna	Membre	Signé
135	Amina Maliki	Membre	Signé
136	Hamsa Ali	Membre	Signé
137	Samira Sadou	Membre	Signé
138	Salmou Souley	Membre	Signé
139	Halima Allassane	Membre	Signé
140	Maddou Souley	Membre	Signé
141	Hadiza Hamadou	Membre	Signé
142	Halima Bagué	Membre	Signé
143	Fati Bagué	Membre	Signé
144	Harira Nouré	Membre	Signé
145	Haoua Karimou	Membre	Signé
146	Fati Yacouba	Membre	Signé
147	Saley Souley	Membre	Signé
148	Fado Siddo	Membre	Signé
149	Founé Abdou	Membre	Signé
150	Balki Bassirou	Membre	Signé
151	Fonni Djibo	Membre	Signé
152	Abassa Souley	Membre	Signé
153	Zeïnabou Abassa	Membre	Signé
154	Katimou Amadou	Membre	Signé
155	Nafissa Hima	Membre	Signé
156	Rafiatou Alassane	Membre	Signé
157	Dommo Hamadou	Membre	Signé
158	Hadiya Bouba	Membre	Signé
159	Kadi Mounkaïla	Membre	Signé
160	Saley Abdou	Membre	Signé
161	Hamsa Seybou	Membre	Signé
162	Nafissa Djibo	Membre	Signé
163	Binta Morou	Membre	Signé
164	Fati Idé	Membre	Signé
165	Dayanatou Adamou	Membre	Signé
166	Waramatou Alassane	Membre	Signé

167	Hadjara Daouda	Membre	Signé
168	Amina Nouhou	Membre	Signé
169	Amina Idé	Membre	Signé
170	LaKayata Saley	Membre	Signé
171	Adama Sina	Membre	Signé
172	Haoua Mounkaïla	Membre	Signé
173	Mariama Tahirou	Membre	Signé
174	Amina Halidou	Membre	Signé
175	Mounkaïla Alassane	Membre	Signé
176	Zakari Seyni	Membre	Signé
177	Alkassoum Souley	Membre	Signé
178	Abdoussalam Souley	Membre	Signé
179	Nouré Allassane	Membre	Signé
180	Moumouni Allassane	Membre	Signé
181	Younoussa Hassane	Membre	Signé
182	Abdoulkadri Yacouba	Membre	Signé
183	Bagué Ousmane	Membre	Signé
184	iAbdoulwahabou Sina	Membre	Signé
185	Kadi Boureima	Présidente	Signé
186	Boubacar Abdou Vice président	Vice président	Signé
187	Ayouba Abdou SG	SG	Signé
188	Issaka Mamoudou SG/Adjoint	SG Adjoint	Signé
189	Haoua Mamoudou	Trésorière Générale	Signé
190	Hamidou Abdou	Chargé de la production et Marketing	Signé
	GROUPEMENT DE TCHAMBI		
191	Zalika Doudou	Menbre	Signé
192	Aeinatou Boubacar	Menbre	Signé
193	Kadi Boureima	Menbre	Signé
194	Soumana Hassane	Menbre	Signé
195	Ali Issa	Menbre	Signé
196	Einabou Boubacar	Menbre	Signé
197	Djama Yacouba	Menbre	Signé
198	Bouli Bonkano	Menbre	Signé
199	Ayouba Abdou	Menbre	Signé
200	Zeinabou tchido	Menbre	Signé
201	Idrissa Younssou	Menbre	Signé
202	Boubacar Abdou	Menbre	Signé
203	Haoua Hamidou	Menbre	Signé
204	Balkissa Younoussou	Menbre	Signé
205	Kisso Abdou	Menbre	Signé
206	Kadi Nouhou	Menbre	Signé

207	Haoua Mamoudou	Menbre	Signé
208	Moumey Seydou	Menbre	Signé
209	Mariama Moussa	Menbre	Signé
210	Issaka MAmoudou	Menbre	Signé
211	Kadi Mamoudou	Menbre	Signé
212	Abdou Younoussa	Menbre	Signé
213	oulio Zibo	Menbre	Signé
214	Hama Kodjo	Menbre	Signé
215	Aissatou Moussa	Menbre	Signé
216	kaltoumi Hassane	Menbre	Signé
217	Maimouna Zibo	Menbre	Signé
218	Salmou Doudou	Menbre	Signé
219	Mounkaila Ibrahim	Menbre	Signé
220	Zeinabou Abdou	Menbre	Signé
221	Biba Boureima	Menbre	Signé
222	Sadi Issifi	Menbre	Signé
223	Haoua Adama	Menbre	Signé
224	Aissa Maitchido	Menbre	Signé
225	Hamidou Abdou	Menbre	Signé
226	Mariama Boubacar	Menbre	Signé
227	Nateye Moussa	Menbre	Signé
228	Kadi Nouhou	**Commissaire aux comptes**	Signé
229	Moukaila Boureima	**Commissaire aux comptes**	Signé
230	Kalilou Morou	**Commissaire aux comptes**	Signé
231	Boubacar Abdou	**Expert paysans**	Signé
232	Ayouba Abdou	**Expert paysans**	Signé
	GROUPEMENT DE TCHAWA		
233	Maimouna Moussa	**Membre**	Signé
234	Balkissa Hamidou	**Membre**	Signé
235	Hadjira Mossi	**Membre**	Signé
236	Hama Boubacar	**Membre**	Signé
237	Zeinabou Omarou	**Membre**	Signé
238	Halima Tchana	**Membre**	Signé
239	Rouki Halidou	**Membre**	Signé
240	Zeinabou Mamoudou	**Membre**	Signé
241	Aissata Harouna	**Membre**	Signé
242	Mehaou Abdou	**Membre**	Signé
243	Hadiza Soumana	**Membre**	Signé
244	Saleye Salou	**Membre**	Signé
245	Mariama Dabakoye	**Membre**	Signé
246	Haoua Salou	**Membre**	Signé
247	Zaratou Hassane	**Membre**	Signé
248	Natey Salou	**Membre**	Signé

249	Zeinabou Salou	**Membre**	Signé
250	Maimouna Moussa	**Membre**	Signé
251	Hamssatou Doullaye	**Membre**	Signé
252	Safi Seyni	**Membre**	Signé
253	Halimatou Alhassane	**Membre**	Signé
254	Hama Hamadou	**Membre**	Signé
255	Hamey Boukari	**Membre**	Signé
256	Fati Guteyni	**Membre**	Signé
257	Fati Yacoub	**Membre**	Signé
258	Kadi Guteyni	**Membre**	Signé
259	Rouki Adamou	**Membre**	Signé
260	Biba Matchanga	**Membre**	Signé
261	Fati Illiassou	**Membre**	Signé
262	Halima Illiassou	**Membre**	Signé
263	Artché Dabakoye	**Membre**	Signé
264	Hadjara hassane	**Membre**	Signé
265	Modi Boukari	**Membre**	Signé
266	Saley Abdou	**Membre**	Signé
267	Dourahamane kalilou	**Membre**	Signé
268	Idrissa Hamadou	**Membre**	Signé
269	Zakari Yousso	**Membre**	Signé
270	Karimoune Oumarou	**Membre**	Signé
271	Hama Oumarou	**Membre**	Signé
272	Abdoulaye Seyni	**Membre**	Signé
273	Balkissa Hamidou	**Présidente**	Signé
274	Maimouna Moussa	**Vice Présidente**	Signé
275	Ali Moumouni	**Secrétaire Général**	Signé
276	Souley Seyni	**SG /Adjoint**	Signé
277	Abdoulaye Seyni	**Trésorier**	Signé
278	Zakou Salou	**Trésorier / Adjoint**	Signé
279	Idrissa Adamou	**Commissaire au compte**	Signé
280	Saleye Salou	**Commissaire au compte**	Signé
281	Abdouramane Kalilou	**Commissaire au compte**	Signé
282	Souley Seyni	**Expert paysans**	Signé
283	Moumouni Tchémogo	**Expert paysans**	Signé
	GROUPEMENT DOURE DE BOULKAGOU		
284	Bibata Djibo	**Membre**	Signé
285	Adamou Soumaila	**Membre**	Signé
286	Mamoudou Hamadou	**Membre**	Signé
287	Hadjira Ousseini	**Membre**	Signé
288	Saleye Boureima	**Membre**	Signé
289	Aissatou Nouhou	**Membre**	Signé

290	Salmou Kakaké	**Membre**	Signé
291	Ali Hassane	**Membre**	Signé
292	Binjo Alfari	**Membre**	Signé
293	Djama Yacouba	**Membre**	Signé
294	Salou Hamidou	**Membre**	Signé
295	Aissatou Yacouba	**Membre**	Signé
296	Houré Adamou	**Membre**	Signé
297	Halimatou Yalgou	**Membre**	Signé
298	Fatimatou Anza	**Membre**	Signé
299	Zeinabou Irkybangna	**Membre**	Signé
300	Adama Hassane	**Membre**	Signé
301	Kadidia Yayé	**Membre**	Signé
302	Latchi Souley	**Membre**	Signé
303	Koulio Moussa	**Membre**	Signé
304	Naï yo Goumé	**Membre**	Signé
305	Kediya Seydou	**Membre**	Signé
306	Kediya Hidjo	**Membre**	Signé
307	Moumey Idrissa	**Membre**	Signé
308	Hadiza Chaibou	**Membre**	Signé
309	Mariama Idrissa	**Membre**	Signé
310	Kadi Tinni	**Membre**	Signé
311	Laouali Tinni	**Membre**	Signé
312	Moumey Djambey	**Membre**	Signé
313	Bouli Albeidou	**Membre**	Signé
314	Aissa Albeidou	**Membre**	Signé
315	Amina Hamadou	**Membre**	Signé
316	Sadou Hassane	**Membre**	Signé
317	Boureima wissina	**Membre**	Signé
318	Sadou Hamidou	**Membre**	Signé
319	Bibata Djibo	Présidente	Signé
320	Adamou Soumaila	Vice Présidente	Signé
321	Moumoudou Hamado	Secrétaire Général	Signé
322	Hadjira Ousseini	SG /Adjoint	Signé
323	Salou Boureima	Trésorier	Signé
324	Aissata Hamadou	Trésorier / Adjoint	Signé
325	Salou Hamadou	Chargé de la production et marketing	Signé
326	Salmou Kakaké	Commissaire au compte	Signé
327	Ali Hassane	Commissaire au compte	Signé
328	Bindjo Alfari	Commissaire au compte	Signé
329	Djama Yacouba	Expert paysans	Signé
	GROUPEMENT SOUDJI DE HANTIGOURA		

330	Saleye Seydou	Membre	Signé
331	Djama Morou	Membre	Signé
332	Salou Mamoudou	Membre	Signé
333	Moussa Abdoulaye	Membre	Signé
334	Yayé Hamadou	Membre	Signé
335	Tahirou Younoussou	Membre	Signé
336	Moussa Daouda	Membre	Signé
337	Hadiza Elhadji	Membre	Signé
338	Zaratou Chaibou	Membre	Signé
339	Safi Seydou	Membre	Signé
340	Hamssatou Idrissa	Membre	Signé
341	Aissa Hamadou	Membre	Signé
342	Adamou Niandou	Membre	Signé
343	Naïyo Djibo	Membre	Signé
344	Natey Boubacar	Membre	Signé
345	Djama Hamadou	Membre	Signé
346	Mamata Boubaar	Membre	Signé
347	Hamissatou mussa	Membre	Signé
348	Saleye Halidou	Membre	Signé
349	Safi hassimiou	Membre	Signé
350	Amina Soumana	Membre	Signé
351	Haissa Ousseini	Membre	Signé
352	Hourey Boubacar	Membre	Signé
353	Zeinabou Tahirou	Membre	Signé
354	Fatouma Babana	Membre	Signé
355	Haoua Abdoulaye	Membre	Signé
356	Mariama Abdoulaye	Membre	Signé
357	Hadjira Idrissa	Membre	Signé
358	Binta Idrissa	Membre	Signé
359	Maimouna Mounkaila	Membre	Signé
360	Boubacar Irissa	Membre	Signé
361	Zakou Ousseini	Membre	Signé
362	Halidou Seydou	Membre	Signé
363	Mounkaila Idrissa	Membre	Signé
364	Aissata Daouda	Membre	Signé
365	Hadjo Larabou	Membre	Signé
366	Hadjo Salou	Membre	Signé
367	Garba Souley	Membre	Signé
368	Aissa Moussa	Membre	Signé
369	Yayé Idrissa	Membre	Signé
370	Limo Garba	Membre	Signé
371	Abdoulkarkadri Souleymane	Membre	Signé
372	Limo Boubacar	Membre	Signé

373	Issaka Mounkaila	Membre	Signé
374	Naiyo Ousseini	Membre	Signé
375	Saleye seybou	Présidente	Signé
376	Djama moussa	Vice Présidente	Signé
377	Salou mamoudou	Secrétaire Général	Signé
378	Moussa abd seydou	SG /Adjoint	Signé
379	Yayeh amadou	Trésorier	Signé
380	Tahirou younoussa	Commissaire au compte	Signé
381	Moussa abdoulaye	Commissaire au compte	Signé
	GROUPEMENT « FARHAN » DE TOURE		
382	Oudou Youssou	Membre	signé
383	Méhaou Saidou	Membre	signé
384	Idrissa Hamidou	Membre	signé
385	Haoua Mamoudou	Membre	signé
386	Hassane Boubou	Membre	signé
387	Illiassou Yayé	Membre	signé
388	Mounkaila Darey	Membre	signé
389	Salou Haroua	Membre	signé
390	Salou Malam	Membre	signé
391	Hama Foudey	Membre	signé
392	Amina Soumaila	Membre	signé
393	Fatouma Mamoudou	Membre	signé
394	Gabassa Salou	Membre	signé
395	Boubacar Albeigné	Membre	signé
396	Doungouri Bertchiré	Membre	signé
397	Kanguey Adamou	Membre	signé
398	Hamssatou Beidari	Membre	signé
399	Laouli Almoustapha	Membre	signé
400	Natey Djabé	Membre	signé
401	Natey Moussa	Membre	signé
402	Gorio Bigga	Membre	signé
403	Adiza Ayouba	Membre	signé
404	Mariama Mounkaila	Membre	signé
405	Medina Komanti	Membre	signé
406	Zahartou Seyni	Membre	signé
407	Zabata Salou	Membre	signé
408	Djama Sandari	Membre	signé
409	Alarba Sandari	Membre	signé
410	Omou Idrissa	Membre	signé
411	Balkissa Adamou	Membre	signé
412	Sattou Hamadou	Membre	signé
413	Bibata Garba	Membre	signé

414	Kagiyo Batchekou	Membre	signé
415	Hadjira Bigga	Membre	signé
416	Halimatou Djimba	Membre	signé
417	Hawa Mossi	Membre	signé
418	Hidja Bombarou	Membre	signé
419	Kedi Ali	Membre	signé
420	Mounkaila Niandou	Membre	signé
421	Issifi Yaro	Membre	signé
422	Leki Adamou	Membre	signé
423	Hama Soumaila	Membre	signé
424	Safi Hidjo	Membre	signé
425	Ali Adamou	Membre	signé
426	Yassi Djogou	Membre	signé
427	Fatouma Mamoudou	Membre	signé
428	Adiza Yaro	Membre	signé
429	Amina Boubacar	Membre	signé
430	Maimouna Souley	Membre	signé
431	Oudou Youssou	Présidente	signé
432	Méhaou Saidou	Vice Présidente	signé
433	Haoua Mamoudou	Secrétaire Général	signé
434	Idrissa Hamidou	SG /Adjoint	signé
435	Kanguey Adamou	Trésorier	signé
436	Alarba Sandari	Trésorier / Adjoint	signé
437	Amina Soumeila	Chargé de marketing	signé
438	Fatima Mamoudou	Commissaire au compte	signé
439	Hamssatou Beidari	Commissaire au compte	signé
440	Issifi Yaro	Commissaire au compte	signé
441	Hama Fondey	Expert paysans	signé
442	Boubacar Albeigné	Expert paysans	signé
	UNION « WAFAKAI » DE TOURE		
443	Haoua Mamoudou	Présidente Touré	Signé
444	Hamadou Hidjio	Vice Président bongouziba	Signé
445	Djibo Soumeila	Secrétaire Général Guidéré	Signé
446	Mamoudou Daouda	SG /Adjoint Bossia	Signé
447	Kodo Balma	Trésorier Koutoumé	Signé
448	Kanguey Adamou	Trésorier / Adjoint Touré	Signé
449	Oudou Youssou	Commissaire au compte	Signé
450	Hadjio Doudou	Commissaire au compte	Signé
451	Laouali Moumouni	Commissaire au compte	Signé
452	Fati Mamoudou	**Chargé de la production et marketing**	Signé
453	Aminata Soumaila	**Chargé de la production et marketing**	Signé
454	Djibo Soumaila	**Chargé de la production et**	Signé

		marketing	
455	Mamoudou Daouda	**Chargé de la production et marketing**	Signé
456	Tahirou Ousseini	**Chargé de la production et marketing**	Signé
457	Issifi Yaro	**Expert paysans**	Signé
458	Boubacar Albeigna	**Expert paysans**	Signé
459	Dommo Babila	Présidente	Signé
460	Zarata Issifi	Vice Présidente	Signé
461	Hadjara Faramanzo	Secrétaire Général	Signé
462	Hamado Darey	Secrétaire général adjoint	Signé
463	Sipti Sodja	Trésorière générale	Signé
464	Ramatou Adamou	Trésorière adjointe	Signé
465	Lamissi Nouhou	Secrétaire à la production	Signé
466	Hadi Nouhou	Secrétaire à la commercialisation	Signé
467	Houa Djadda	Commissaire aux comptes	Signé
468	Yayé Hassane	Commissaire aux comptes	Signé
469	Adiza Halido	Commissaire aux comptes	Signé
	Groupement Alheri de Larba-Birno		
470	Ayouba Boureima	Président	signé
471	Abdoulaye Mamoudou	Vice Président	signé
472	Soumana Mamoudou	Secrétaire Général	signé
473	Lamissi Mamoudou	Secrétaire général adjointe	signé
474	Hamo Mossi	Trésorière générale	signé
475	Hadio Harouna	Trésorière générale adjointe	signé
476	Rakia Salou	Secrétaire à la production	signé
477	Souley Morou	Secrétaire à la commercialisation	signé
478	Moussa Moumouni	Commissaire aux comptes	signé
479	Kobou Atta	Commissaire aux comptes	signé
480	Alfa Boureima	Commissaire aux comptes	signé
481	Doulla Boureima	Conseiller	signé
482	Mamoudou Seini	Conseiller	signé
483	Moussa Mamoudou	Conseiller	signé
	Groupement Soudji de Garbey Kourou		
484	Fatouma Adama	Présidente	signé
485	Hamsatou Maïkoudi	Vice Présidente	signé
486	Soumaïla Adamou	Secrétaire Général	signé
487	Ali Harouna	Secrétaire général adjoint	signé
488	Zelika Niandou	Trésorière générale	signé
489	Aïssa Harouna	Trésorière générale adjointe	signé
490	Seybou Harouna	Secrétaire à la production	signé
491	Boubacar Moussa	Secrétaire adjoint à la production	signé
492	Mintou Yacouba	Secrétaire à la commercialisation	signé
493	Hadjo Goutou	Commissaire aux comptes	signé

494	Tinni Mounkaïla	Commissaire aux comptes	signé
495	Ikoma Serki	Commissaire aux comptes	signé
	Groupement Sayé de Larba Koira Zeno		
496	Fatouma Adama	Présidente	signé
497	Hamsatou Maïkoudi	Vice Présidente	signé
498	Soumaïla Adamou	Secrétaire Général	signé
499	Ali Harouna	Secrétaire général adjoint	signé
500	Zelika Niandou	Trésorière générale	signé
501	Aïssa Harouna	Trésorière générale adjointe	signé
502	Seybou Harouna	Secrétaire à la production	signé
503	Boubacar Moussa	Secrétaire adjoint à la production	signé
504	Mintou Yacouba	Secrétaire à la commercialisation	signé
505	Hadjo Goutou	Commissaire aux comptes	signé
506	Tinni Mounkaïla	Commissaire aux comptes	signé
507	Ikoma Serki	Commissaire aux comptes	signé
	Union Ni-Ima/Kieché		
508	Djibirin Inno	Membre	signé
509	Bachara Boubacar	Membre	signé
510	Yahaya Issoufou	Membre	signé
511	Mamane Alio	Membre	signé
512	Boubacar Dakaou	Membre	signé
513	Idi Abdou	Membre	signé
514	Yahouza AYahaya	Membre	signé
515	Issoufou Yahaya	Membre	signé
516	Mahamadou Boubacar	Membre	signé
517	Mountari Boubacar	Membre	signé
518	Mamane Oumarou	Membre	signé
519	Illia Oumarou	Membre	signé
520	Assoumane Maino	Membre	signé
521	Issa Ibrahim	Membre	signé
522	Saidou Ibrahim	Membre	signé
523	Adamou Issoufou	Membre	signé
524	Boubé Issoufou	Membre	signé
525	Maazou Ibrahim	Membre	signé
526	Nouhou Ibrahim	Membre	signé
527	Makaya Gado	Membre	signé
528	Abdoulahi Koroney	Membre	signé
529	Saidou Inno	Membre	signé
530	Halidou Kwana	Membre	signé
531	Zoumbai Boubacar	Membre	signé
532	Assoumana Kona	Membre	signé

533	Oumarou Adamou	Membre	signé
534	Tahirou Gado	Membre	signé
535	Abdoul Razak Yahaya	Membre	signé
536	Sradje Garba	Membre	signé
537	Ahamadou Ihiri	Membre	signé
538	Abdou Wakasso	Membre	signé
539	Ibro Mamane	Membre	signé
540	Oumarou Guimba	Membre	signé
541	Adamou Abdou	Membre	signé
542	Boubé Oumarou	Membre	signé
543	Batouré Tondi	Membre	signé
544	Yahaya Sabo	Membre	signé
545	Issiya Gado	Membre	signé
546	Sani Amadou	Membre	signé
547	Oumarou Karsani	Membre	signé
548	Barahama Boubacar	Membre	signé
549	Abdoul Razak Adamou	Membre	signé
550	Ahamadou Bizo	Membre	signé
551	Issa Harouna	Membre	signé
552	Oumarou Koroney	Membre	signé
553	Salifou Bako	Membre	signé
554	Issa Inno	Membre	signé
555	Adamou Assoumane	Membre	signé
556	Tahirou Issoufou	Membre	signé
557	Harouna Inno	Membre	signé
558	Anass Almou	Membre	signé
559	Soba Gouzayé	Membre	signé
560	Salmanou Harouna	Membre	signé
561	Nassirou Kadadé	Membre	signé
562	Mahamadou Mato	Membre	signé
563	Azoumi Tounkara	Membre	signé
564	Fatchima Mahamadou	Membre	signé
565	Amina Mahamadou	Membre	signé
566	Arziki Maizama	Membre	signé
567	Habsou Maizama	Membre	signé
568	Guijiya Bozari	Membre	signé
569	Salamatou Bachirou	Membre	signé
570	Rakia Sani	Membre	signé
571	Talakaya Hamadou	Membre	signé
572	Doumouni Daouda	Membre	signé
573	Haoua Oumarou	Membre	signé

574	Haoua Magagi	Membre	signé
575	Binta Salou	Membre	signé
576	Dela Salou	Membre	signé
577	Haoua Saidou	Membre	signé
578	Tahamou Manomi	Membre	signé
579	Hassada Amadou	Membre	signé
580	Zeinabou Maiguizo	Membre	signé
581	Zaliya Assoumane	Membre	signé
582	Halimatou Amadou	Membre	signé
583	Ouarabaje Illiassou	Membre	signé
584	Lomi Koché	Membre	signé
585	Rabi Barmini	Membre	signé
586	Dela Fariya	Membre	signé
587	Dela Mahamadou	Membre	signé
588	Tawakasso Hima	Membre	signé
589	Ai Guero	Membre	signé
590	Gado Garka	Membre	signé
591	Haoua Harouna	Membre	signé
592	Meri Abdoulahi	Membre	signé
593	Farida Ibro	Membre	signé
594	Mino Ibrahim	Membre	signé
595	Seyni Naada	Membre	signé
596	Maimouna Hassane	Membre	signé
597	Gueda Tiémago	Membre	signé
598	Aissa Tiémago	Membre	signé
599	Karsani Alhassane	Membre	signé
600	Goga Malam	Membre	signé
601	Daouda Kadadé	Membre	signé
602	Namaiwa Naada	Membre	signé
603	Adamou Tawayé	Membre	signé
604	Yanoussa Issaka	Membre	signé
605	Zali Ibrahim	Membre	signé
606	Hadjara Guero	Membre	signé
607	Boubacar Issa	Membre	signé
608	Yagoudou Hatta	Membre	signé
609	Boubé Issaka	Membre	signé
610	Harouna Issa	Membre	signé
611	Rabi Harouna	Membre	signé
612	Hassiya Sani	Membre	signé
613	Rabiou Salifou	Membre	signé
614	Nouhou Oumarou	Membre	signé

615	Digé Rabiou	Membre	signé
616	Batouré Tondi	Membre	signé
617	Yahaya Batouré	Membre	signé
618	Nassirou Baranmayya	Membre	signé
619	Rakia Badajé	Membre	signé
620	Aicha Nassirou	Membre	signé
621	Balira Atto	Membre	signé
622	Abass Ibrahim	Membre	signé
623	Ibrahim Tondi	Membre	signé
624	Mariama Adamou	Membre	signé
625	Yaou Dambo	Membre	signé
626	Tassiou Gojé	Membre	signé
627	Sahiya Yaou	Membre	signé
628	Souley Issa	Membre	signé
629	Rahamane Issa	Membre	signé
630	Maimouna Naata	Membre	signé
631	Saley Ango	Membre	signé
632	Mahamadou Ango	Membre	signé
633	Maazou Harouna	Membre	signé
634	Soufianou Yanoussa	Membre	signé
635	Zouéra Mahamadou	Membre	signé
636	Jamila Saley	Membre	signé
637	Harouna Ango	Membre	signé
638	Tabizo Harouna	Membre	signé
639	Laouali Boubé	Membre	signé
640	Labran Boubé	Membre	signé
641	Mamane Moudi	Membre	signé
642	Habibou Harouna	Membre	signé
643	Nassirou Hatté	Membre	signé
644	Tahirou Abdou	Membre	signé
645	Sanoussi Tahirou	Membre	signé
646	Maazou Oumarou	Membre	signé
647	Habibou Oumarou	Membre	signé
648	Nazirou Oumarou	Membre	signé
649	Abass Oumarou	Membre	signé
650	Hassane Abdou	Membre	signé
651	Hamadou Abdou	Membre	signé
652	Issa Hamadou	Membre	signé
653	Yahaya Hassane	Membre	signé
654	Hadiza Hamadou	Membre	signé
655	Aouali Guero	Membre	signé

656	Amadou Guero	Membre	signé
657	Abdou Guero	Membre	signé
658	Saminou Assoumane	Membre	signé
659	Assoumane Koraou	Membre	signé
660	Moudi Koraou	Membre	signé
661	Rabiou Assoumane	Membre	signé
662	Aichatou Moudi	Membre	signé
663	Dijé Boubé	Membre	signé
664	Adama Batouré	Membre	signé
665	Fatchima Nouhou	Membre	signé
666	Rabiou Baranmaya	Membre	signé
667	Mourdja Rabiou	Membre	signé
668	Sani Sabou	Membre	signé
669	Habibou Abarchi	Membre	signé
670	Saley Abarchi	Membre	signé
671	Harouna Ango	Membre	signé
672	Daouda Abarchi	Membre	signé
673	Hassimou Ango	Membre	signé
674	Hamza Namata	Membre	signé
675	Mahamadou Idi	Membre	signé
676	Mamoudou Chipkaou	Membre	signé
677	Abdou Kaka	Membre	signé
678	Salifou Issoufou	Membre	signé
679	Rabiou Oumarou	Membre	signé
680	Younoussa Abarchi	Membre	signé
681	Mamane Abarchi	Membre	signé
682	Issia Boubacar	Membre	signé
683	Ramatou Malam	Membre	signé
684	Balira Issoufou	Membre	signé
685	Ibrahim Namata	Membre	signé
686	Yacoubou Souleymane	Membre	signé
687	Jaki Beidou	Membre	signé
688	Tahirou Beidou	Membre	signé
689	Awali Manou	Membre	signé
690	Nafiou Salifou	Membre	signé
691	Idi Manou	Membre	signé
692	Samaila Limane	Membre	signé
693	Ibro Harouna	Membre	signé
694	Rabiou Bozari	Membre	signé
695	Limane Mazogaba	Membre	signé
696	Issoufou Mamane	Membre	signé

697	Mai-Aiki Batchiri	Membre	signé
698	Abass Manou	Membre	signé
699	Ika Harouna	Membre	signé
700	Illa Salifou	Membre	signé
701	Fataou Mahamadou	Membre	signé
702	Moussa Alkali	Membre	signé
703	Hachimou Mahamadou	Membre	signé
704	Moudi Chipkaou	Membre	signé
705	Mamane Hassane	Membre	signé
706	Hachimou Chipkaou	Membre	signé
707	Tawassa Chipkaou	Membre	signé
708	Malam Nouhou Salifou	Membre	signé
709	Idi Malam	Membre	signé
710	Ibrahim Idi	Membre	signé
711	Ibrahim Malam	Membre	signé

Appendix 3 :
Décret N° 2011-057 PCSRD/ PM du 27 Janvier 2011

REPUBLIQUE DU NIGER
Fraternité – Travail - Progrès

PRESIDENCE DU CONSEIL SUPREME POUR LA RESTAURATION DE LA DEMOCRATIE

CABINET DU PREMIER MINISTRE

DECRET N° **2011-057**PCSRD/PM

du 27 janvier 2011

modifiant et complétant le décret n° 2000-272/PRN/PM du 04 août 2000 portant création, attributions et composition du Conseil National de l'Environnement pour un Développement Durable (CNEDD).

LE PRESIDENT DU CONSEIL SUPREME POUR LA RESTAURATION DE LA DEMOCRATIE, CHEF DE L'ETAT,

Vu Constitution du 25 novembre 2010 ;

Vu l'ordonnance n° 2010-001 du 22 février 2010, portant organisation des pouvoirs publics pendant la période de transition et les textes modificatifs subséquents ;

Vu le décret n° 96-004/PM d 09 janvier 1996, portant création, composition et attributions du Conseil National de l'Environnement pour un Développement Durable (CNEDD), modifié par le décret n° 2000-272/PRN/PM du 04 août 2000 ;

Vu le décret n° 2007-371/ bis/PM du 05 septembre 2007, portant organisation des services du Cabinet du Premier Ministre et fixant leurs attributions et ses textes modificatifs subséquents ;

Vu le décret n° 2010-003/PCSRD du 23 février 2010, portant nomination du Premier Ministre ;

Sur rapport du Directeur de Cabinet du Premier Ministre, Président du Conseil National de l'Environnement pour un Développement Durable ;

Le Conseil des Ministres entendu ;

D E C R E T E :

Article premier : Les articles 3 et 5 du décret n° 2000-272/PRN/PM du 04 août 2000 sont modifiés ainsi qu'il suit :

Article 3 (nouveau) : Le CNEDD est l'Organe National de Coordination et du suivi des activités relatives aux Conventions post-Rio et leurs protocoles ainsi que de toute autre Convention qu'il viendrait à souscrire en la matière.
De ce fait, il est le point focal politique national du suivi de la mise en œuvre des dites Conventions.

A ce titre :

- il doit veiller à :
  - ✓ l'intégration de la dimension des changements climatiques et de l'adaptation dans les politiques, stratégies et programmes de développement ;
  - ✓ la mobilisation des ressources financières nécessaires à la mise en œuvre des activités des changements climatiques et d'adaptation.

- Il est chargé de :
  - ✓ la gouvernance climatique ;
  - ✓ l'administration des fonds liés aux changements climatiques et à l'adaptation.

Article 5 (nouveau) : Le Plan National de l'Environnement pour un Développement Durable (PNEDD) tient lieu du Plan d'Action National Environnemental (PANE). Il est composé de six (6) programmes prioritaires qui sont :

- Programme d'Action National de Lutte Contre la Désertification et de Gestion des Ressources Naturelles (PAN/LCD-GRN) ;
- Programme Eau et Développement Durable ;
- Programme Energie et Développement Durable ;
- Programme Environnement Urbain et Cadre de Vie ;
- Programme de Gestion de la Diversité Biologique ;
- Programme Changements et Variabilité Climatiques.

Le PNEDD, à travers ces programmes, intègre les stratégies, programmes et politiques en matière de l'environnement et le développement durable dont entre autres :

- ✓ la stratégie et plan d'Action sur les Changements climatiques ;
- ✓ la stratégie et plan d'Action sur les Energies Renouvelables ;
- ✓ la stratégie et plan d'Action sur l'Environnement Urbain et cadre de Vie ;
- ✓ la stratégie et plan d'Action sur la Diversité Biologique ;
- ✓ la stratégie et plan d'Action sur l'Auto-évaluation Nationale des Capacités à Renforcer (ANCR) pour gérer l'environnement mondial dans le cadre des trois (3) Conventions de Rio ;
- ✓ le Schéma Directeur de mise en valeur de Gestion de Ressources en Eau ;
- ✓ le Programme d'Action National d'Adaptation (PANA) aux changements climatiques ;
- ✓ le Programme Pilote de Résidence Climatique (PPCR).

Article 2 : L'article 6 du décret n° 2000-272/PRN/PM du 04 août 2000 est abrogé.

Article 3 : Le présent décret abroge toutes dispositions antérieures contraires.

Article 4 : Le Directeur de Cabinet du Premier Ministre est chargé de l'exécution du présent décret qui sera publié au Journal Officiel de la République du Niger.

Fait à Niamey, le 27 janvier 2011

Signé : Le Président du Conseil Suprême pour la Restauration de la Démocratie, Chef de l'Etat,
Le Général de Corps d'Armée **DJIBO SALOU**

Pour ampliation :
Le Secrétaire Général
du Gouvernement

ADAMOU SEYDOU