

**REPUBLIC OF NIGER**



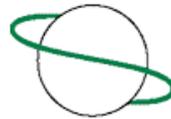
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**FINAL EVALUATION REPORT ON THE GEF/LDCF/UNDP-FUNDED  
PANA RESILIENCE PROJECT**



**May/June 2014**

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## ACRONYMS AND ABBREVIATIONS

**AAP:** African Adaptation Programme  
**ALP:** Adaptation Learning Programme  
**CBA:** Community-Based Adaptation  
**CBD:** Convention on Biological Diversity  
**CCD:** United Nations Convention to Combat Desertification  
**CES/DRS:** water and soil conservation  
**CNEA:** National Water and Sanitation Commission  
**CNEDD:** National Environmental Council for Sustainable Development (Niger)  
**CNP:** National Project Steering Committee  
**CNSF:** National Forest Seeds Centre (Niger)  
**CQI:** Continuous Quality Improvement  
**CTEDD:** Commission Technique Eau et Développement Durable (technical commission on water and sustainable development)  
**DMN:** National Meteorology Directorate  
**GEF:** Global Environment Facility  
**HIMO:** high labour intensity in public works projects  
**HIPC:** Heavily Indebted Poor Countries  
**HS:** Highly Satisfactory  
**HU:** Highly Unsatisfactory  
**IDCC:** Integration of the Dimension of Climate Change  
**IMWR:** Integrated Management of Water Resources  
**INRAN:** Institut National de la Recherche Agronomique du Niger  
**I3N:** Nigériens Feed Nigériens initiative  
**LFB:** Livestock Feed Bank  
**MH/E:** Ministry of Hydraulics and the Environment  
**MS:** moderately satisfactory  
**MTA:** Mid-term assessment  
**MU:** Moderately unsatisfactory  
**ND:** Not Determined  
**NRM:** Natural Resource Management  
**PANA:** Programme d'Actions National pour l'Adaptation aux Changements Climatiques (National Action Programme for Adaptation to Climate Change)  
**PDC:** Municipal Development Plan  
**Prodoc:** Project Document  
**PTA:** Annual Work Plan  
**RGA:** Revenue-Generating Activity  
**S:** Satisfactory  
**SDR:** Rural Development Strategy  
**SE/CNEDD:** Secrétariat Exécutif du Conseil National de l'Environnement pour un Développement Durable (Executive Secretariat of the National Environmental Council for Sustainable Development)  
**SRP:** Poverty Reduction Strategy  
**U:** Unsatisfactory  
**UGCP:** Project Management and Coordination Unit  
**UNFCCC:** United Nations Framework Convention on Climate Change  
**UNV:** United Nations Volunteers  
**VS:** Very Satisfactory



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## GLOSSARY

- **PERFORMANCE**

The Larousse Dictionary (2013) defines performance as the degree to which mechanisms for providing services manage to serve the target market (their 'reach'), the number of customers served ('scale') and the degree to which this is done fairly and sustainably.

- **ADAPTATION**

Adaptation means any adjustment of natural systems or human activities in response to actual or predicted climate change.

- **EVALUATION**

Evaluation is a function which consists of giving as systematic and objective an appraisal as possible of an ongoing or completed project, programme or set of lines of approach, including its design, implementation and results. Evaluation involves establishing the relevance of the targets and how far they are implemented, and efficiency with regard to development, effectiveness, impact and viability. *Development Assistance Committee (DAC/OECD)*

- **RELEVANCE**

This is the degree to which the aims of the action taken meet beneficiaries' expectations and the needs of the area. A project's relevance basically depends on its design. Relevance is about how far the project's envisaged objectives properly respond to the identified problems or actual needs. Relevance must be evaluated throughout the project cycle. Relevance is a matter of the project's suitability to the problems to be solved at two given moments: at the time of its design; and on evaluation.

- **EFFECTIVENESS**

Effectiveness is a way of describing the achievement of objectives. It is a comparison between the objectives set at the start and the results achieved: hence the importance of having clear aims from the outset. The idea is to measure deviations and be able to analyse them.

- **EFFICIENCY**

Efficiency is about making rational use of available resources. The aim is to analyse whether objectives have been met at reduced or minimum financial, human and organisational cost.

As a criterion, efficiency measures the relations between the various activities, the available resources and the expected results. This measurement must be both quantitative and qualitative. Efficiency must also deal with time and budget management. The key question raised by the criterion of efficiency is: "has the project been implemented in the best way?" Efficiency raises the question of the most advantageous economic solution. It therefore involves considering whether similar results were achievable by other means, at lower cost, in the same time.

- **IMPACT**

The impact study measures an action's medium and long-term effects. This is an assessment of all the project's effects on its environment, which may be negative or positive, foreseen or unforeseen. Effects may be economic, social, political or ecological. The impact is the complete set of significant and lasting changes, with a direct or indirect causal link to the project, in the lives and in the environment of the people and groups.

Impact is about the relation between the goal (or specific objective) and the overall aims of the project. In other words, impact is a measure of whether the advantage to the intended beneficiaries spills over to benefit a larger number of people overall in the sector, region or country as a whole.

- **SUSTAINABILITY**

Sustainability (or permanence or viability) is a parameter for establishing whether the programme's effects will outlast the programme itself. It is an analysis of the probability that the positive effects of the action will continue when the external assistance has come to an end. Viability is a parameter for establishing whether the project's positive effects (in terms of its specific aim) are likely to last once the external sources of finance have dried up. Viability is not only financial, but also about whether it is worth repeating the programme or implementing it on a wider scale.

- **GENDER**

Gender refers to the construction and allocation of male and female social roles. A typical feature is often to keep women mainly in roles related to human reproduction and socialisation, and in activities which society values less. Men, by contrast, mostly have access to power in the private and public sectors and control more of the resources destined for production activities, political life, communications and freedoms.

## ACKNOWLEDGMENTS

The members of the team for the final evaluation of the PANA Resilience Project were Joëlle Ramage (international expert/Head of Mission) and Hassane Moussa (national expert). They wish to express their sincere thanks to everyone involved, both from government departments and the technical and financial partners (GEF and UNDP), SE/CNEDD, the local authorities (mayors and customary leaders) and the project management unit. All these have made effective contributions to this final evaluation, by supplying information and opinions which made this work much easier. Finally, the team wish to thank the UNV and the target communities of the sites visited, for the group and individual interviews which they kindly agreed to give.

The team of consultants wish to record their special gratitude to the monitoring and evaluation expert for the PANA Resilience Project, **Abdoulaye Issa**, for the mass of information he supplied and for his full availability throughout this final evaluation.

## **EXECUTIVE SUMMARY**

According to the final evaluation team, which conducted the relevant checks in the field, the PANA Resilience Project has very largely achieved its specific aim of increasing the capacities of the agricultural and water sectors to adapt to climate change and move towards sustainable operational efficiency. Clearly, the concept of sustainability involves increased awareness. The political and institutional will must exist to consolidate this awareness effectively and treat it as an essential stage to pass through on the way to sustainable development. At this level, the Project has provided the necessary tools of training and management to achieve this purpose. Obviously, sustainability does not depend only on the tools set up by the Project, but also on Men and on a genuine political will to support this initiative, to set up an autonomous basic service for the population. Control of this initiative is an important asset politically.

Nevertheless, the final evaluation team found particularly encouraging results from the PANA Resilience Project pilot sites, in terms of socio-economic and environmental transformations relating to climate change in Niger.

### **In terms of implementation**

The management unit performed very well in its implementation of the project activities. This was not inevitable, because many factors were involved in lending substance to the PANA Project, from the drawing board stage through to its implementation.

### **In terms of organisation**

We followed an inclusive approach. This involved strong participation by local decision-makers and stakeholders at the grassroots. We mobilised financial institutions, local decision-makers, grassroots community organisations and development organisations and involved them in the consultation process.

It does seem that performance indicators were not evaluated when the parts of the project were put together. Indicators not taken into account included increasing the proportions of: beneficiaries with access to drinking water; women using the materials to process and prepare agricultural produce and for RGAs; field managers from the Ministries of Agriculture and Transport with training in the planning, implementation and follow-up of programmes to counter climate-related changes; and community development officers and recycled rural development officers. Nevertheless, the results were measurable by the mid-term and final evaluations.

### **In terms of environmental and social impacts**

**Environmental:** The main features of the PANA Project were poverty alleviation, improvement of food security and the possibility of human and animal access to the water supply. Hence it can already be stated that this Project has brought serious and very positive benefits to the environment and to humans, in the following fields:

- the beneficiary groups are better informed about environmental aspects and are behaving in environmentally friendly ways;

- drilling wells and digging ponds and irrigation ditches improves the water supply and considerably reduces water-borne diseases, and must continue to do so in future;
- building barriers against erosion (bench terraces and semi-circular basins) results in much better agricultural and fodder crops, the return of plant growth to surrounding areas, recovery of impoverished soil and the emergence of new flora and fauna; and
- training in a wide range of subjects, such as land reclamation, improved sowing practices and market gardening offers a better understanding of possible agricultural uses of the land.

**Gender:** The PANA Project has emphasised gender independence. It has helped to remedy existing imbalances in this area, which have been detrimental to the women who actually account for over half the national population. The Project lent support to the improvement of agricultural techniques to tackle the food shortage and alleviate the poverty of its target populations. The Project also enhanced women's skills in management and administration (in groupings and cooperatives) and in 'clubbing together' (teamworking). It lent direct support to women's groups, setting up appropriate activities to allow them genuine autonomy, such as sheep fattening (with animal health monitoring), needlework, market gardening, using a grain mill (saving time and making daily life less laborious). These activities have led to real professionalisation, enabling some of these women to consider going into business on their own account. In this context, raising their awareness of microfinance issues may further their efforts in this direction.

Women are also the main beneficiaries of water engineering works (wells, ponds and irrigation ditches). These reduce the distances they have to walk to fetch water.

**Social:** The PANA Project has had very important social impacts, especially on education, health, employment and living standards. In education, the Project has made it possible to upgrade the level of educational provision. This has helped to improve the country's gross educational provision to around 72.9 % (81.9 % for boys and 63.9 % for girls (*source: INSEE 2012*)). In the field of healthcare, the Project has led to better handling of matters of primary healthcare, by improving families' access to basic healthcare and enabling them to buy medicines. The revenue generated by Project activities should enable women to deal more systematically with children's health. This extended aspect should make it possible to reduce the maternity death rate. This is one of the world's highest, at 1800 deaths per 100,000 live births (*source: UNICEF 2012*). There may also be better birth control for women, with positive repercussions on health and general welfare, for themselves and their families.

**In terms of economic impact:**

The PANA Project has had positive repercussions in terms of employment and income levels of the populations, and therefore on poverty alleviation. In fact the 'HIMO' approach of high labour intensity of upgrading or infrastructure building works completed or to be carried out as the project progresses has boosted employment (especially of young people) and injected significant resources into the local economies of the project area. Similarly, sales of produce from market gardening, sheep fattening or needlework, for example, will significantly reduce family poverty and food insecurity.

**In financial terms:**

The funding was sufficient to carry out the activities. It can readily be seen that implementation levels have been very much higher than forecast (*cf. Tables 1 and 2*).

When these results were released, a number of other projects came about. Noteworthy examples are: the ACDI Project; the Africa Climate Adaptation and Food Security Project and the Régionalisation de l'Adaptation à Base Communautaire (regionalisation of community-based adaptation) Project. All these projects and programmes seek to strengthen the country's capacity to adapt to the present and future impact of variable weather and climate change, which affect food security and other development priorities. Their approach is to strengthen the management of climate risks and continue climate-resilient development methods.

## INTRODUCTION

Widespread poverty, arid climate and a largely agricultural economy leave Niger especially vulnerable to climate change (Prodoc, 2009). Niger signed the United Nations Framework Convention on Climate Change on 11 June 1992 and ratified it on 24 July 1995 and the National Action Programme for Adaptation to the Harmful Effects of Climate Change (the PANA Programme) forms part of the country's implementation of the UNFCCC. Niger benefited from the financial support of the Global Environment Facility (GEF) in devising its PANA Programme. The PANA development aim is to help to mitigate the harmful effects of climate change on the most vulnerable people, with a view to sustainable development and action against poverty in Niger.

The process of preparation for PANA was iterative, with both local and central participation. National and local consultations were held, through a series of meetings with all stakeholders, and a number of local and national working groups were set up (the Steering Committee and work teams). Discussions were held with residents of areas at risk, local councillors, technicians and governmental and customary authorities, to find out what they considered to be their immediate and pressing needs with regard to adaptation.

As part of the implementation of the National Action Programme for Adaptation to Climate Change (PANA), in late 2009 the Government of Niger received funding from the GEF, through UNDP, for the project "Priority Action under PANA to strengthen the resilience and adaptability of the agricultural sector in response to climate change."

The Project's primary objective is to strengthen the capacity of the agricultural and water sectors to adapt to climate change, by implementing adaptation measures which will increase agricultural productivity, food security and the water supply at district and village levels.

The Project "Priority Action under PANA to strengthen the resilience and adaptability of the agricultural sector in response to climate change" is an answer to the concerns of people in the most vulnerable areas, identified when PANA was drawn up.

Essentially, this pilot project will involve the main adaptation measures identified as priorities for stakeholders at département, municipal and village levels at the time of preparation of the PANA Programme. The initiatives will take place at national and local levels and involve the revision of national and local development plans. Expected Project results are as follows:

- 1) increased resilience, in the face of climate change, of food production systems and/or of the communities who live in food insecurity;
- 2) strengthened institutional capacity of the agricultural and water sectors, especially information and publicity services, to cope with weather fluctuation and climate change; and
- 3) write up of the lessons learned, and distribution as documents to establish the knowledge management element.

Eight (8) municipalities were chosen – one per region - in order to achieve the overall objective and expected results of the Project. They are:

- (1) the rural municipality of Kaou, Tchintabaraden Département, Tahoua Region;
- (2) the urban municipality of Loga, Loga Département, Dosso Region;
- (3) the rural municipality of Roumbou, Dakoro Département, Maradi Region;
- (4) the rural municipality of Chétimari, Diffa Département, Diffa Region;

- (5) the urban municipality of Tanout, Tanout Département, Zinder Region;
- (6) the rural municipality of Tondikiwindi, Ouallam Département, Tillabéri Region;
- (7) Arrondissement 1, City of Niamey, Niamey Region; and
- (8) the rural municipality of Aderbissinat, Tchirozérine Département, Agadez Region.

Two evaluations were planned during the process of implementation of this Project. They were: a mid-term evaluation and a final evaluation. This document contains the final evaluation of the PANA Resilience Project.

## **I. GENERAL INFORMATION**

### **A. CONTEXT AND JUSTIFICATION**

Basically, the climate of Niger is that of the Sahel, where annual rainfall typically fluctuates widely. Extreme poverty poses a serious hindrance to development in Niger. There are a number of aggravating factors: drought, malnutrition, high infant mortality rate, limited opportunities for primary education, limited access to technology, pandemics, deteriorating ecosystems and regional conflicts. Rising temperatures and growing irregularity of rainfall will probably jeopardise food security and the water supply. Throughout Niger, growers work with few resources, in a precarious environment which is sensitive to the slightest change of temperature and rainfall patterns. Countrymen subsist precariously, because of their isolation, the limited size of their smallholdings, insecure land tenure, limited access to electricity, and fluctuations in world prices for commodities and agricultural input materials (PANA, 2006).

PANA is integral to the main policy and strategy documents adopted in cabinet by the Government of Niger and passed by the National Assembly. These strategic frameworks include SRP (2002), SDR (2003) and the National Strategy on Climate Change and Variability and its Action Plan (2004). The adaptation measures identified in the context of PANA conform to the SRP and SDR approaches, especially with regard to food security, capacity enhancement, water control, action against desertification and promotion of RGAs.

There is also synergy between the adaptation measures identified as part of PANA and the provisions of the three post-Rio Conventions: the Convention to Combat Desertification (CCD), the Convention on Biological Diversity (CBD) and the United Nations Framework Convention on Climate Change (UNFCCC). Besides, all activities planned in implementation of the PANA Resilience Programme are fully compatible with the five lines of approach of the 3N initiative for food safety and agricultural development and the Government of Niger Emergency Programme.

### **B. REMINDER OF THE PROJECT AIMS**

The PANA development aim is to help to mitigate the harmful effects of climate change on the most vulnerable people, with a view to sustainable development and action against poverty in Niger.

In the context of the PANA action priorities, this Project consists of implementing adaptation measures to increase agricultural productivity and the security of the food and water supply. The Project will essentially implement the main adaptation measures identified during the PANA preparation process as priorities for stakeholders at département, municipal and village levels. The action will take place at national and local levels, and involve revising the national and local development plans.

The overall aim and the specific objectives of the PANA Resilience Project are as follows:

## 1. OVERALL AIM

The Project's primary aim is to boost the capacity of the agricultural and water sectors in Niger to adapt to climate change.

## 2. SPECIFIC OBJECTIVES

The following three specific project objectives were set:

- to boost the resilience of food production systems and/or of communities living in food insecurity, so that they can cope with climate change;
- to strengthen the institutional capacity of the agricultural and water sectors to cope with climate change, including variability of the weather, with a special emphasis on information and publicity services; and
- to write up and disseminate the knowledge gained and lessons learned, in support of the measures being implemented to adapt to the effects of climate change.

## C. CONSISTENCY OF PROJECT OBJECTIVES WITH NATIONAL STRATEGIES

The Project contributes to the implementation of the UNDP country programme for Niger in 2009 – 2013, especially sub-programme 3: Environment and Sustainable Development. This component aims “to assist the Government of Niger to strengthen its capacity in the field of climate change, especially its adaptation measures.” The Project will emphasise the main adaptation initiatives identified during the PANA preparation process as priorities for stakeholders at national, département, municipal and village levels.

The proposed project is a good fit with one of the UNDP areas of interest: capacity reinforcement. The objectives of the PANA Resilience Project are also consistent with the principal challenges listed in the Revised Poverty Reduction Strategy (SRP: 2008-2012), the new UNDAF (2009-2013) and the UNDP Strategic Plan (2008-2012). The PANA Project initiatives run both at national and at devolved, local levels. They include a revision of national and local development plans, and are a good way of acting on the concern to promote the country's local governance. The PANA Resilience Project objectives fully match the five lines of approach of the 3N Initiative “Nigériens Feed Nigériens” for food security and the development of sustainable agriculture. In particular, they are compatible with *line of approach 3: improvement of the resilience of people to climate change, crises and disasters* and *line of approach 4: improving the nutrition of Nigériens*.

The adaptation measures identified as part of PANA are consistent with the provisions of the three post-Rio Conventions: CCD, CBD and UNFCCC.

After four years of implementation and a mid-term evaluation in 2012, a final evaluation stage has provided an occasion to gather and analyse results and performance figures for the activities launched under PANA. The Results Table (*see Annexe 5*) describes the aims of this evaluation.

#### **D. COMMENTS ON CERTAIN PROJECT DESIGN INDICATORS**

- Some of the terms used in the 'Prodoc' are translations from English into French which do not do justice to the reality in Niger (notably 'farming,' which becomes 'exploitation' in French = farming operation). In fact, in English-speaking countries, the term 'farming' implies large-scale operations whereas, in Niger, it consists only of smallholdings, often parcels of less than one hectare of land. This explains why the indicators of the numbers of 'exploitants' (farmers) have been scaled down.
- The Prodoc (4) underestimated rural people's use of improved seed, suggesting that they were unaware of these improved varieties. Now, after the first year of the Project, the yields obtained have focused the attention of rural people on the need to make large-scale use of this improved seed.
- The Prodoc also ignored certain indicators such as mills and livestock fattening, because they were not designated as potential business activities at the time of design of the Project.

## II. METHODOLOGY

Various methodological tools were used:

- for the interviewing: a method of participation which originated in anthropology, with face-to-face and semi-direct interviews, focus groups, questionnaires and survey sheet;

- for the analyses:

a) the DAC method: at the final evaluation stage, this is the measure of relevance, effectiveness, efficiency, impact and sustainability, with gender as a cross-cutting factor (*cf. Glossary*); and

b) the SWOT method: strengths, weaknesses, opportunities, threats. The analysis pursues the aim that strategy should include both internal and external factors, maximising strengths and potential opportunities and minimising the effects of weaknesses and threats. Most of the time, this analysis takes place at meetings of strategy-makers, or experts. The SWOT analysis is a way of identifying which strategic lines of approach to develop.

Please note that the Prodoc does not include the survey of the municipalities in terms of vulnerability index, malnutrition and household poverty. It also ignores the land desertion rate and includes no profit and loss accounting for the RGAs.

### A. DOCUMENTARY REVIEW

At the request of the evaluation team, the project management unit placed important documentation at the assessors' disposal. This consisted of the Prodoc, the Annual Work Plan (PTA), the quarterly and annual activity planning and execution reports, the technical reports of the evaluation follow-up, the annual audit reports, the UNV reports, the contracts signed between the Project and the various service providers, and other relevant documents. These other documents included the SDR, the strategic framework of the 3N initiative, PANA itself, and the reports of the various studies carried out in the context of the present Project. This ample and varied documentation gave the team enough information to carry out the mid-term evaluation well. Interviews were held with partners to supplement the information contained in the documentation.

### B. STAKEHOLDER INTERVIEWS

The vast majority of interviews were with stakeholders involved in the implementation of the Project under evaluation. Essentially the interviewing took place at two levels:

- **at national level**, the evaluation team met, first, the Executive Secretary of the National Council for Sustainable Development (SE/CNEDD); then the Project Management Unit (UGP); the person responsible for the Project at UNDP; the members of the National Project Steering Committee (CNP); the representatives of the key ministries and national institutions involved in the Project implementation; the service providers; and the staff of the CNEDD AAP Project.

- **at local level**, most interviews were with local and customary authorities, local councillors, devolved departments of central government (technical services), service providers, the UNV who represent both the project management unit and UNDP, the local beneficiaries, and other partners such as leaders of other projects and local NGOs, involved in the project's target municipalities.

### **C. FIELD ASSIGNMENT**

The field assignment is an opportunity to see the work actually done on site, discuss it with the beneficiaries and other partners involved in the Project implementation, and obtain feedback from them on the structuring, execution and relevance of the activities in progress. That is why the evaluation team worked with the members of the UGP, the SE/CNEDD and the UNDP representative to plan this field mission to four of the eight project sites, accompanied by UGP members.

#### **1. CHOICE OF SITES FOR EVALUATION**

The Project team and SE/CNEDD felt that the field visits could be limited to sites not too far from Niamey, for the following reasons: (1) activities at all sites are the same; (2) the duration of the evaluation is short, with only eight days allocated to site inspections; and (3) funding is tight.

Indeed, as the total consultation was 20 days, it was difficult in practice to spend more than eight days out in the field. Given these constraints, the mid-term evaluation mission team selected four sites in liaison with the Project managers. Thus the team of consultants visited the following sites with the follow-up and evaluation expert and the Project Director. These were: (1) the urban municipality of Tanout in Tanout Département, Zinder Region; (2) the urban municipality of Loga in Loga Département, Dosso Region; (3) the rural municipality of Roubou in Dakoro Département de Dakoro, Maradi Region; and (4) Niamey Arrondissement 1, City and Region of Niamey.

#### **2. DATA GATHERING TOOLS**

To gather data, the evaluation team arranged face-to-face and semi-direct interviews as well as focus groups with all stakeholders, ranging from decision-makers to beneficiaries (*cf. table in Annexe 1*). These interviews covered the Project's impact on people's living conditions in terms of food security, poverty alleviation and environmental changes in particular.

### **D. OBJECTIVES OF THE FINAL EVALUATION**

Following the UNDP programme and project management procedures and the Prodoc itself, in the context of the national execution, UNDP, in cooperation with SE/CNEDD, requested the final evaluation of the PANA Resilience Project.

The aim of this final evaluation is to enable the Government of Niger and UNDP-GEF to assess the progress of the action taken and how likely it is to become permanent.

The final project evaluation will engage with the following key issues:

- evaluate stakeholder efforts in support of the Project implementation;

- identify problems or challenges encountered since the mid-term evaluation;
- examine and evaluate the effects of the Project activities on the intended beneficiaries;
- evaluate the permanence, if any, of the Project benefits and results, beyond completion of the Project itself;
- describe the key factors to focus on to improve prospects of lasting results from the project and possibilities of replicating the approach;
- examine the implementation of the project monitoring and evaluation;
- describe the main lessons; and
- make recommendations and suggestions for the future, in the light of the lessons learned.

Based on the above key issues, the team of consultants proceeded to analyse all the key issues (*cf. Tables in Annexes 1 and 2*), with a view to responding appropriately to the information gained on the ground and from the interviews with the main stakeholders involved in carrying out the Project activities.

## **E. EXPECTED RESULTS**

This Project, now under final evaluation, has the general aim of analysing the efforts made since the mid-term evaluation, to increase the capacity of the agricultural and water sectors in Niger to adapt to climate change. The strategy followed to achieve this is to implement long-term adaptation measures to improve productivity, food security and the water supply. Thus the project set up 17 measures or adaptation outcomes at the eight selected sites. These included the adaptation outcomes achieved with the money provided by co-funding.

## **F. SUMMARY OF EXPECTED RESULTS**

The present PANA Resilience Project was designed to meet three specific objectives. These translated into the expected results summarised below.

**Result 1:** Boost the resilience of food production systems and/or of communities suffering food insecurity, so that they can cope with climate change;

**Result 2:** Strengthen the institutional capacity of the agricultural and water sectors to cope with climate change including variable weather, with a special emphasis on their information and publicity services; and

**Result 3:** Create a component of lessons learned and knowledge management.

### III – RESULTS OF THE FINAL EVALUATION

#### 3.1. Round-up of project effects and the impacts of its overall results

These are measurements of the initially planned effects and impacts, which were monitored throughout the Project implementation. The table of the overall analysis of effects and impacts (*cf. table 1 below*) shows the detail of these measures.

**Table 1:** Project effects and impacts (with scores awarded in the final evaluation)

Link in chain	Indicator heading	Description	Reference value	Value or overall level intended	2010	2011	2012	2013	Running total	SCORE (*) for scoring, see under the table.
<b>IMPACT</b>	Number of long-term adaptation measures implemented which allow increased agricultural productivity, food security and water supply	By the Project end, at least 29 long-term adaptation measures will be implemented, to increase agricultural productivity, food security and the water supply.	No measures were implemented to adapt to climate change.	29	7	10	10	4	31	<b>HS</b>
<b>EFFECT 1</b>	Number of communities which were, but no longer are, living in food insecurity.	By the end of the project, at least 8 communities, which were living in food insecurity, will no longer be in that situation.	Food production systems and communities living in food insecurity apparently have little ability to cope with	8	7	1	8	0	16	<b>HS</b>

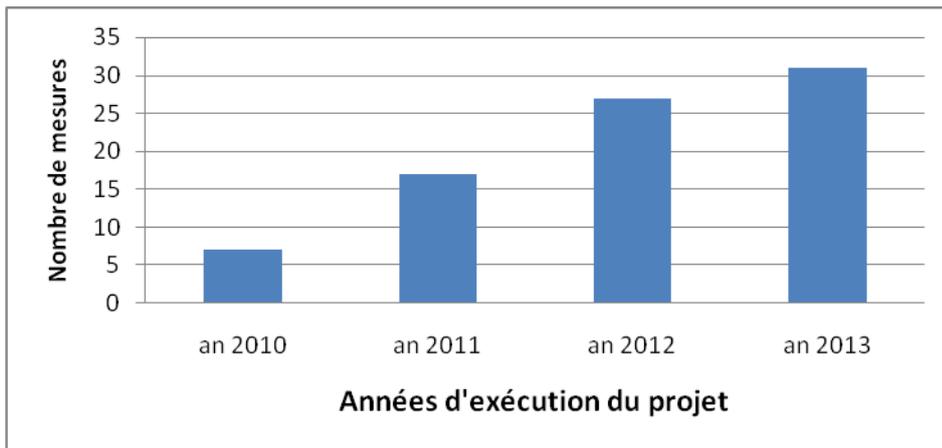
			climate change and variable weather.							
<b>EFFECT 2</b>	Number of institutional agreements designed to improve climate information networks	By the end of the Project at least four institutional agreements will be signed with a view to improving climate information networks.	Climate information systems are mismanaged and the information not widely disseminated.	4	3	6	4	0	13	<b>HS</b>
<b>EFFECT 3</b>	Number of cases covered by Adaptation Learning Programme (ALP)	At the end of the Project, at least three examples of better practices will be accessible through ALP; these examples derive from the project activities.	No case of better practice has been recorded.	3	2	3	5	1	11	<b>HS</b>

(\* ) **SCORING:** HS = highly satisfactory; S = satisfactory; MS = moderately satisfactory; PS = not very satisfactory; I = unsatisfactory

**SCORING OF THE FINAL EVALUATION: HS**

### 3.1.1. Overall analysis of effects and impacts

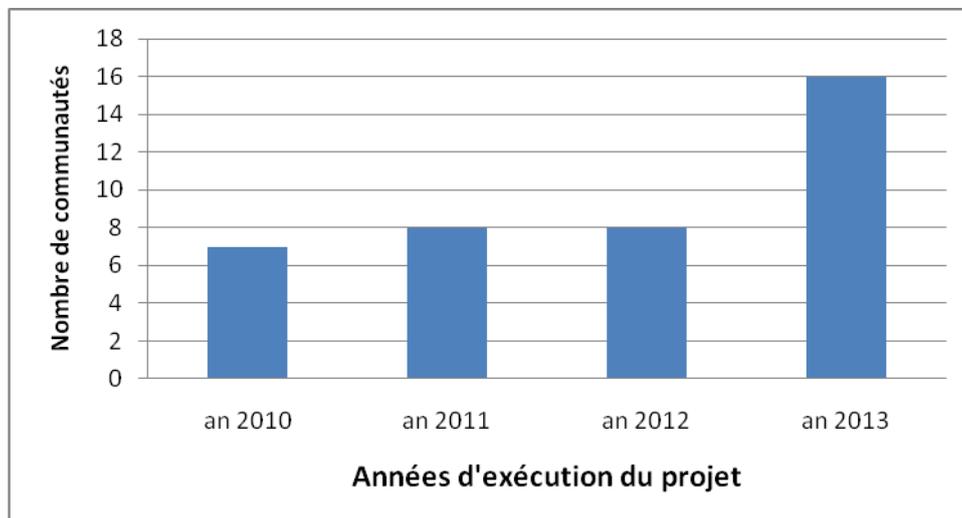
**1. IMPACT:** Number of long-term adaptation measures implemented which increase agricultural production, food security and the water supply: at the final stage of the project, there were 31 of these measures (the running total for 2010 to 2013), representing a success rate of **106%**. This exceeds the number of measures originally intended (29). It can therefore be affirmed that the impact and permanence of the activities are already assured (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**). Fig. 1 shows the number of adaptation measures as a measure of the impact of the Project.



No. of measures [an = year] Project implementation years

**Fig. 1:** Total numbers of adaptation measures, as project impact

**2. EFFECT 1:** Number of communities which were, but no longer are, living in food insecurity: at the final stage of the Project, we are able to record that the Project value, measured in terms of numbers of communities, has doubled: in other words the quantified effect is **200%**. It can be deduced that the populations concerned are protected from food insecurity at the end of the project (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**). Fig. 2 illustrates the number of communities which were, but no longer are, living in food insecurity.

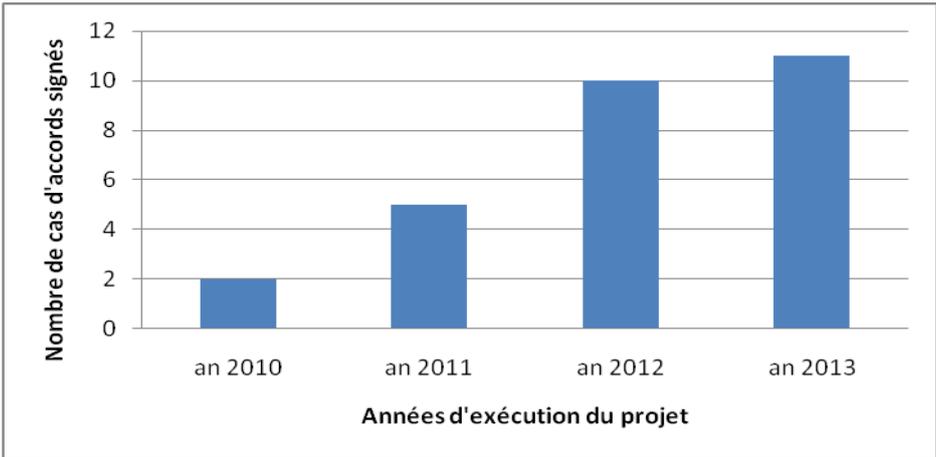


Number of communities

Project implementation years

**Figure 2:** Number of communities which were, but no longer are, living in food insecurity

3. **EFFECT 2: Number of institutional agreements designed to improve climate information networks.** There have been 13 agreements (Fig. 3) signed since the beginning of the Project, instead of the four planned in the Prodoc. The quantified effect is **325%**. This is evidence that the institutions have realised the urgency of improving climate information networks (**HS in terms of relevance, efficiency and effectiveness**).

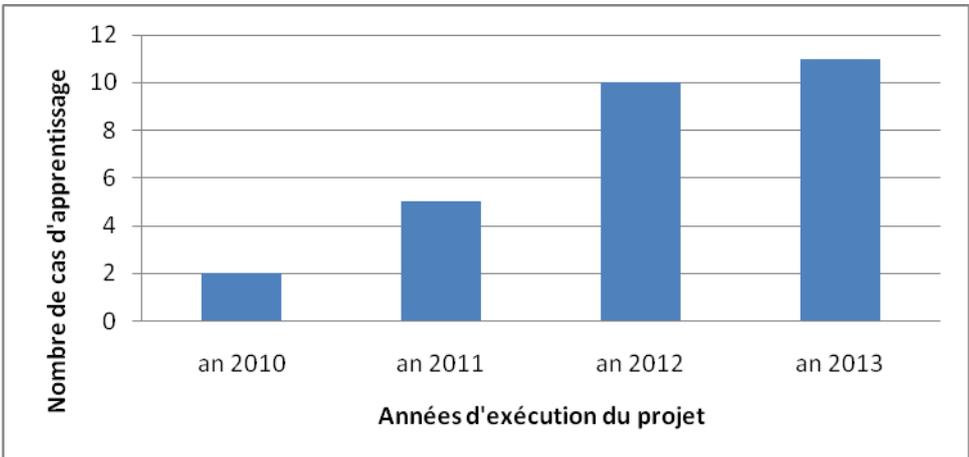


Number of agreements signed

Project implementation years

**Fig. 3:** Number of institutional agreements signed to improve climate information networks

4. **EFFECT 3: Number of cases covered by Adaptation Learning Programme (ALP).** At the end of the Project, we can record that 11 practices were established through ALP (Fig. 4). This means the quantified effect is **367%**. We can, therefore, state that the large number of good practices established are evidence that the populations themselves want to reduce the levels of poverty and food insecurity (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**).



Number of adaptation learning courses

Project implementation years

**Fig. 4:** Number of cases covered by ALP

### 3.2. Overall results of activities carried out by PANA Resilience from 2010 to 2013

Table 2 below summarises the results of the PANA activities carried out from the outset at the eight chosen sites in different regions of the country.

Table 2: Overall results at final stage, for all activities (with scores at final evaluation)

Components for completion	Unit	Predicted at start	Completed 2010	Completed 2011	Completed 2012	Completed 2013	Total	Percentage success rate	Score (*) <i>scoring scale under table</i>
<u>Indicator 1:</u> Number of growers who use improved varieties with the help of the Project initiatives	Headcount	50	140	1180	5000	3500	9820	19,640%	HS
<u>Indicator 2:</u> Number of growers with access to seed	Headcount	50	140	140	-	-	280	560%	HS
<u>Indicator 3:</u> Number of professional seed growers	Headcount	ND			70	-	70		HS
<u>Indicator 4:</u> Number of pilot countrymen trained in use of drought-resistant seed	Headcount	50	140	140			280	140%	HS

varieties									
<u>Indicator 5:</u> Number of drought-resistant varieties trialled in a rural area	Number	<b>4</b>	<b>6</b>	<b>6</b>	<b>3</b>	<b>1</b>	<b>10</b>	<b>250%</b>	<b>HS</b>
<u>Indicator 6:</u> Number of shops opened and trading in material for use in agriculture	Number	<b>ND</b>				<b>8</b>	<b>8</b>		<b>S</b>
<u>Indicator 7:</u> Number of management committees set up by project	Number	<b>ND</b>	<b>21</b>	<b>24</b>	<b>35</b>	<b>34</b>	<b>114</b>		<b>HS</b>
<u>Indicator 8:</u> Number of people trained in management committees		<b>ND</b>	<b>320</b>	<b>320</b>	<b>320</b>	<b>320</b>	<b>1200</b>		<b>HS</b>
<u>Indicator 9:</u> Number of fertiliser/pesticide shops opened and trading	Number	<b>ND</b>	<b>0</b>	<b>0</b>		<b>8</b>	<b>8</b>		<b>HS</b>
<u>Indicator 10:</u> Quantity of		<b>ND</b>	<b>0</b>	<b>0</b>		<b>9.8</b>	<b>9.8</b>		<b>HS</b>

fertilisers and pesticides on sale in shops									
<u>Indicator 11:</u> Quantity of pesticides on sale in shops	<b>Litres</b>	<b>ND</b>				<b>200</b>			<b>HS</b>
<u>Indicator 12:</u> New area of village land irrigated	<b>hectare</b>	<b>ND</b>	<b>0</b>	<b>40</b>	<b>16</b>	<b>17</b>	<b>73</b>		<b>HS</b>
<u>Indicator 13:</u> Number of bench terraces constructed on agricultural land	<b>number</b>	<b>ND</b>	<b>1500</b>	<b>982</b>			<b>2482</b>		<b>HS</b>
<u>Indicator 14:</u> Number (of ha) of bench terraces constructed on grazing land	<b>hectare</b>	<b>470</b>	<b>305</b>	<b>250</b>			<b>555</b>	<b>118%</b>	<b>HS</b>
<u>Indicator 15:</u> Number of trees planted on bench terraces	<b>hectare</b>	<b>250</b>		<b>38680</b>	<b>12 000</b>		<b>50,680</b>	<b>20,272%</b>	<b>HS</b>
<u>Indicator 16:</u> Areas sown with drought-resistant fodder varieties	<b>hectare</b>	<b>100</b>	<b>235</b>	<b>320</b>			<b>555</b>	<b>555%</b>	<b>HS</b>

<u>Indicator 17:</u> Number of gabions and dams built	<b>Number</b>	<b>3 gabions and 2 dams</b>	<b>0</b>				4 study documents available		<b>PS</b>
<u>Indicator 18:</u> Number of institutional agreements designed to improve climate information networks	<b>Number</b>	<b>4</b>	<b>3</b>	<b>6</b>	<b>4</b>	<b>-</b>	<b>13</b>	<b>325%</b>	<b>HS</b>
<u>Indicator 19:</u> Number of institutional agreements designed to improve climate information systems	<b>Number</b>	<b>4</b>	<b>3</b>	<b>6</b>	<b>4</b>	<b>-</b>	<b>13</b>	<b>325%</b>	<b>HS</b>
<u>Indicator 20:</u> Number of growers who use longer-term weather forecasts.	<b>Head count</b>	<b>ND</b>	<b>140</b>	<b>140</b>			<b>280</b>		<b>HS</b>
<u>Indicator 21:</u> Number of plant health team leaders trained	<b>Head-count</b>	<b>ND</b>	<b>80</b>				<b>80</b>		<b>HS</b>
<u>Indicator 22:</u> Creation of fire breaks	<b>km</b>	<b>ND</b>					<b>1555</b>		<b>HS</b>

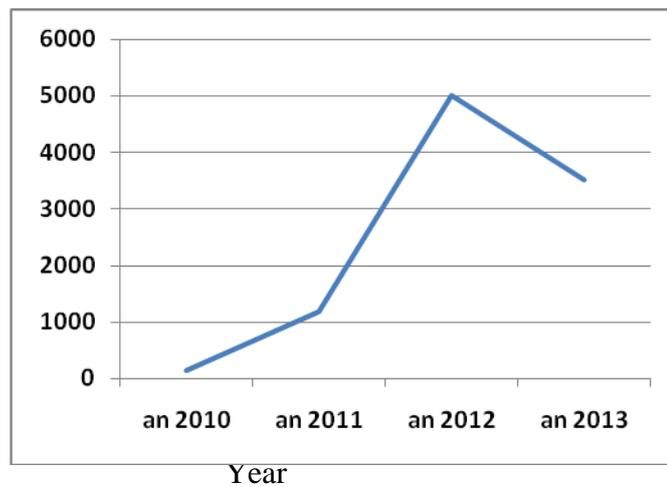
**Please note: ND stands for 'Not Defined' by the Prodoc**

**(\*) SCORING:** HS = highly satisfactory; S = satisfactory; MS = moderately satisfactory; PS = not very satisfactory; I = unsatisfactory

**SCORE FROM FINAL EVALUATION: HS**

### 3.2.1. Analysis of overall results

- **Indicator 1:** Number of growers using improved varieties with the help of the Project initiatives: the final evaluation shows that the number of growers now stands at 9820, compared with the 50 expected in advance. The percentage success, **19,640%**, reflects this activity's very high performance (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**). This, in turn, reflects people's exceptional determination to improve their socio-economic conditions. Fig. 5 shows the number of smallholders who have received the improved seed varieties by a 'ripple effect.'

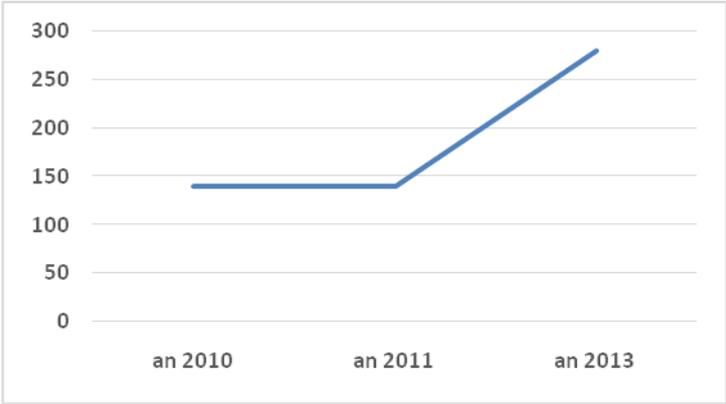


**Fig. 5:** Number of growers using improved seed varieties



**A Sakabal resident (photographed opposite):**  
"By selling my cowpea crop I have, for the first time in my life, not just got my hands on an XOF 10,000 note, but on several XOF 10,000 notes. This money has enabled me to meet my own needs and some of my husband's too. I'm in competition with my husband in the production and sale of improved seeds."

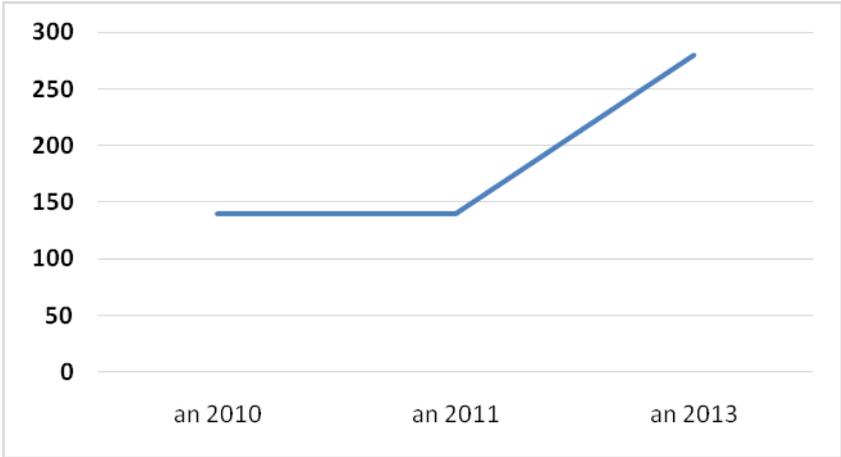
- **Indicator 2:** Number of producers with access to seeds: 280 producers compared with the 50 envisaged in the Prodoc. That gives a **560%** success rate, far above initial predictions and indicates genuine possibilities for a spread by a ‘ripple effect’ (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**). Fig. 6 tracks the rise in producers with access to these seeds.



**Figure 6:** Number of producers with access to the seeds

- **Indicator 3:** Number of professional seed growers (*indicator not defined at start*). Of the many producers of seed, the Project selected some (70) to reskill as professional seed growers, from whom the other peasants could obtain supplies (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**).

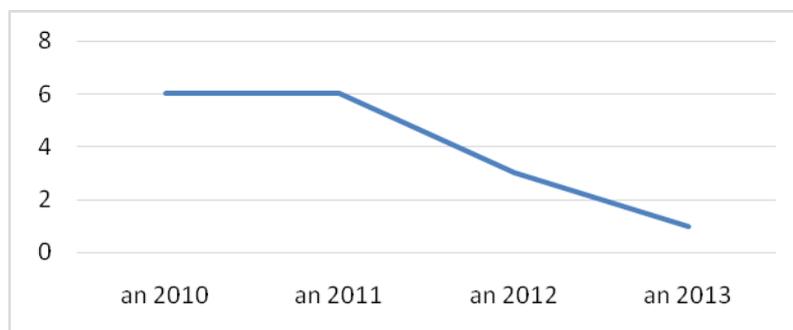
- **Indicator 4:** Number of pilot peasants trained in the use of drought-resistant varieties: 280 producers compared with the 50 envisaged in the Prodoc. This is a high success rate: **140%**, from which it can be hoped that the activity will be permanent (**HS in terms of relevance, effectiveness, efficiency, impact, durability and gender**). Fig. 7 shows how many pilot peasants have been trained in growing drought-resistant seed varieties.



**Fig. 7:** Number of pilot countrymen trained to grow drought-resistant seed varieties

- **Indicator 5:** Number of drought-resistant varieties trialled in a rural area: 10 by the end of the Project, compared with the four envisaged in the Prodoc, i.e. a **250%** success rate. It was possible to sow additional varieties, which were not widely known, and grow them

successfully (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**). Fig. 8 shows the distribution of seed varieties introduced each year in the areas covered by the Project.



**Figure 8:** Number of drought-resistant varieties introduced each year

- **Indicator 6:** Number of shops for agricultural materials opened and trading (*indicator not defined at the start*): 8. Smallholders need agricultural input materials to be available in their villages. The Project therefore proceeded to open these shops (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**).

- **Indicator 7:** Number of management committees formed by the Project (*not a defined indicator*): 114. Because there were too few management committees or none depending on site), the Project ensured that all sites had coordinating and management bodies (**HS in terms of relevance, effectiveness, efficiency, impact, sustainability and gender**).

- **Indicator 8:** Number of management committee members trained (*not a defined indicator*): 1200. As management requires a minimum of theoretical knowledge, the Project held training sessions for these committee members (**HS in terms of relevance, effectiveness, efficiency, impact, sustainability and gender**).

- **Indicator 9:** Number of fertiliser/pesticide shops opened and trading (*not a defined indicator*): 8. Given smallholders' need for agricultural input materials such as fertilisers and pesticides, the Project began building shops to stock these products (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**).

- **Indicator 10:** Quantity of fertiliser and pesticides on sale in the shops (*not a defined indicator*): 9.8 tonnes. As fertilisers and pesticides are factors in improving agricultural productivity, smallholders need to be able to procure them locally (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**).

- **Indicator 11:** Quantity of pesticides on sale in shops (*not a defined indicator*): 200 tonnes

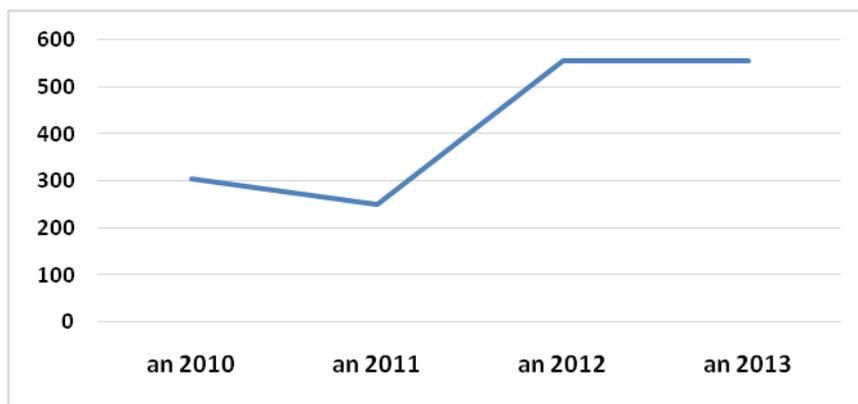
The recorded quantities are obvious proof that countrymen are concerned to look after their harvests as best possible (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**).

A Tanout countryman: "using pesticides has enabled us to control the spread of crop pests."

- **Indicator 12:** New irrigated areas (hectares) of village land (*not a defined indicator*): 73. Originally, too few market gardening sites were recommended. At the request of the men and women involved in this activity, the Project increased the number of irrigable areas per site and per village (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**).

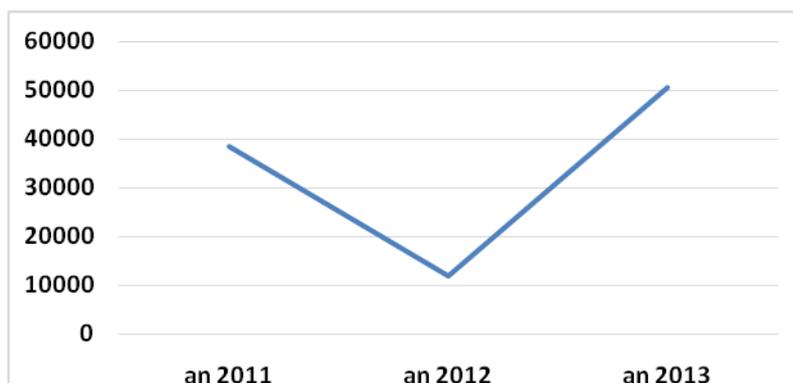
- **Indicator 13:** Number of bench terraces constructed on agricultural land (*not a defined indicator*): 2482. Building agricultural bench terraces on the lateritic plateaux is a viable way of making agricultural activities pay (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**).

- **Indicator 14:** Number (of hectares) of bench terraces constructed on grazing land: 555 hectares compared with the 470 predicted in the Prodoc. This gives a **118%** success rate, a wholly satisfactory result, in view of the difficulties of tilling hard lateritic soil. It will be up to the people to maintain this activity, and its permanent establishment will depend on them (**HS in terms of relevance, effectiveness, efficiency and impact**). Fig. 9 shows the land area reclaimed for grazing.



**Fig. 9:** Reclaimed area of grazing land

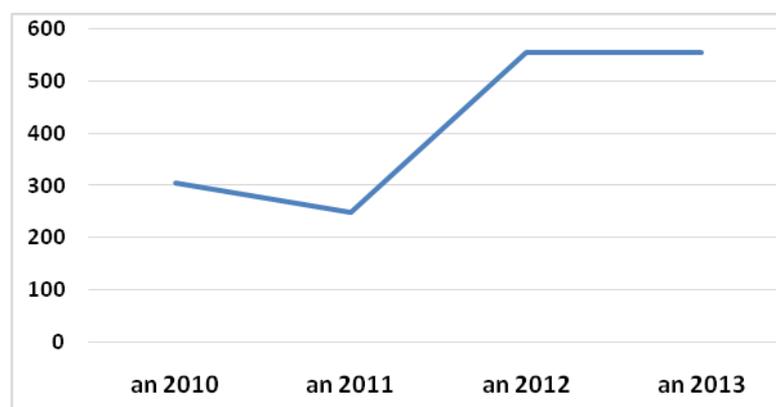
- **Indicator 15:** Number of trees planted on the bench terraces: the Prodoc envisaged 250 trees; the results in the field are spectacular: the 50,680 trees planted represent a **20,272%** success rate. (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**). Fig. 10 shows the number of trees planted on the structures restored to working order.



**Figure 10:** Number of trees planted on bench terraces

One Loga resident told us, “in an area where there was neither straw, nor trees, nor birds or animals, we have now planted trees. The vegetation has grown back and the wild animals have returned.”

- **Indicator 16:** Area of land sown with drought-resistant varieties of fodder seed: the areas sown total 555 hectares compared with the 100 envisaged in the Prodoc (Fig. 11). That is a **555%** success rate. The smallholders have redoubled their efforts to get this activity going. It therefore has a very strong chance of lasting (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**).



**Figure 11:** Land area sown with fodder varieties resistant to drought

- **Indicator 17:** Number of institutional agreements designed to improve climate information networks: 13 agreements were concluded, compared with four envisaged in the Prodoc. This is a **325%** success rate (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**).

- **Indicator 18:** Number of gabions and dams built. The Prodoc envisaged building three gabions and two dams. For the time being, four studies have been carried out. These call for the necessary funds and approval of these for specific projects (**PS**).

- **Indicator 19:** Number of institutional agreements aimed at improving climate information systems: the Prodoc had envisaged four agreements; 13 have been concluded. In percentage terms, this is 325%: testimony to the strong interest in this Project among managers at national level (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**).

- **Component 20:** Number of farmers who use the longer-term weather forecasts (*not a defined indicator*): 280. Local people know nothing about sowing dates and periods or rainfall. The need for this meteorological information prompted the Project to supply rain gauges at all sites (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**).

A countryman from Guinea Alhazei: “before the rain gauges came into use, I did not know the right period or the necessary rainfall for sowing.”

- **Indicator 21:** Number of plant health team leaders trained (*not a defined indicator*): 80. The countrymen were at risk of poisoning from the use of plant health products. This encouraged the Project to train team leaders who could advise their colleagues on the effective and responsible use of these products, to reduce the potential risks (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**).

A Loga smallholder: “the team leaders, who have been trained in plant health, have shown us how to use chemicals effectively on our fields. The team leaders are also training us in the use of these phytosanitary products.”

- **Indicator 22:** creation of fire breaks (*not a defined indicator*) 1555 km (**HS in terms of relevance, effectiveness, efficiency, impact and sustainability**).

A Tamololo resident: “Fire breaks have been created to protect our homes against bush fires. This, in turn, preserves the grassland of our pastures to feed the cattle we keep in the area.”

### 3.3. Summary of training received by beneficiaries

The PANA Resilience Project has been particularly generous in reinforcing capacity for the populations of its pilot areas (Table 3). This offers the assurance that the activities launched by the Project will continue. The strengthening of capacity allows individuals to become autonomous and take responsibility. However, the Project only covered 20% of Niger's vulnerable municipalities. Table 4 summarises the purposes of the courses run in the context of the Project.

**Table 3:** Summary of training received by beneficiaries

Type of training	On IDCC		For education officers		For social activity		For collectors		For team leaders		For seamstresses		For local councillors	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Municipalities														
- Aderbissinat/ Agadez	20	0	99	13	90	60	10	-	10		4	36		
- Chétimari/Diffa	17	3	97	0	90	60	10	-	10		82	53		
- Loga/Dosso	18	3	107	10	90	60	10	-	10		-	20		
- Kaou/Tahoua	19	1	98	14	90	60	10	-	10		-	-	720	480
Arrondissement 1/Niamey	26	6	121	10	90	60	10	-	10		-	20		
- Roubou/Maradi	20	0	125	20	90	60	10	-	10		-	20		
- Tanout/Zinder	20	0	122	8	90	60	10	-	10		0	40		
- Tondikiwindi /Tillaberi	26	2	118	3	90	60	10	-	10		0	66		
<b>Total</b>	166	15	987	78	720	480	80		80				1200	
No. of mgmnt. committee members trained: 113														

**Equipment:** 225 rain gauges; 8 mills; 1 community radio station; 80 plant health kits; farming implements, etc.

**Table 4:** Summary of the purposes of the training given in the context of the Project

TRAINING	PURPOSE	TARGET TRAINEES
(Community-Based) Adaptation Learning Programme (ALP)	To ensure a uniform understanding of the tools and how collective bodies should use them in the field. It is important that the main stakeholders in community-based adaptation matters should meet with a manager to gain knowledge, pool experiences, share lessons learned and develop further synergy from the initiative. The aim is to guide local development in a direction which makes it less vulnerable to climate risks.	Heads of technical departments at Département level and municipal councillors
Training of central managers and regional hubs of the Ministry of Town & Country Planning and Community Development (MPAT/DC), and members of SE/CBEDD, to support officers of devolved government in integrating the aspect of climate change into the regional and municipal planning documents	A workshop at national level to train the regional hubs and central managers in the integration of the aspect of climate change into the local development plans (PDC), the regional development plans (PDR), the Regional Development Schemes and other sector policy documents.	National and regional managers from MPAT/DC
Training for members of the Soudouré and Tondibiah grouping in administrative and financial management	To ensure that the members of the groupings concerned can handle the general running of a committee; To brief the grouping members on the importance of compliance with the written rules and regulations which they have themselves adopted;	The members of the Soudouré and Tondibiah groupings

	<p>to guide the grouping on the proper management of their group resources; and</p> <p>to give grouping members an understanding of the administration and financial management of a business.</p>	
Improving skills for the Community-Based Adaptation (CBA) approach	<p>To improve the skills of the main stakeholders involved in the community-based adaptation initiatives and work out lessons and good practices in adapting to climate change;</p> <p>to strengthen the bodies co-ordinating adaptation, by reflecting on how to capitalise systematically on national experiences of adaptation;</p> <p>to discuss CBA as a method of community resilience in the face of climate change; and</p> <p>to identify and share good practices, lessons learned and tools relating to the CBA approach.</p>	<p>About 30 participants from SE/CNEDD, the project management units of PANA Resilience and the African Adaptation Programme, the PANA UNVs, representatives of NGOs sponsoring projects, the PANA/R intervention area, partners in the CBA programme, technical departments, local or central government authorities, CBA project/GEF liaison staff, staff of the CARE/ALP programme, German Technical Cooperation (GTZ), AFRICARE and other interested partners.</p>
Improving the knowledge of radio presenters on the risks and opportunities of climate change	<p>Theory component: to inform the presenters of community radio channels about the measures for adapting to climate change implemented by the Project; to discuss communication strategy for broadcasting on climate change and CBA issues;</p> <p>Practical component: to ensure that trainees learn the techniques of audio recording and interviewing with a view to preparing radio programmes; to train presenters in how to prepare and present a radio broadcast on the risks of climate change and measures taken to tackle them (editing conference, distribution of reporting teams and organisation of external sound stages); to familiarise presenters with the set-up of an editing studio, listening to and pre-editing of audio material,</p>	<p>Community radio presenters</p>

	preparing recorded introduction, voice-off presentations of the edited sound track; and train participants in presentation of the completed broadcast on an internal sound stage	
To boost teamworking skills	Training in teamworking for management committee members, so that they have a better knowledge of each member's roles and responsibilities and to ensure the success of the action to be undertaken; to ensure that management committee members understand the outlines of cooperative management and the importance of compliance with the rules and regulations which they have themselves adopted; to help participants to grasp the notion of meetings (ordinary and extraordinary, and at what intervals, etc); to impart a knowledge of how to plan the activities of an organisation; to understand how to keep the management records of a corporate body (cash book, sold ledger, bought ledger, auditing, minuting etc); and to ensure that the management committee disseminates the information and knowledge gained to the people it represents	Members of management committees
To strengthen capacity in long-term information and communication systems	More specifically, this involves briefing growers on the opportunities available in terms of outlets; briefing them on the existence of networks of professional seed growers in their own region or outside; briefing them on whether professional seed growers should join the various existing networks and, if so, what steps to take; to introduce growers to the process of setting up a local agricultural seed production cooperative, while supplying them with information on the possible advantages of a cooperative organisation and the drawbacks which exist for producers who are	Professional seed growers

	progressing individually; to train producers in packaging techniques to preserve their seeds; and to provide producers with any other useful information on the smooth running of their businesses.	
To strengthen skills in acting on the risks related to climate change and adaptation measures.	This means teaching education officers in the ideas and concepts of climate change; training staff in local schools in the causes, consequences, effects and impacts of climate change; discussion of adaptation measures to cope with and/or mitigate climate risks; and discussion of measures to mitigate greenhouse gas emissions.	Education officers (inspectors, education advisers, and head teachers of elementary schools in the municipalities involved with the Project)
To reinforce the capacity of producers so that people can change over to food security by making efficient use of agricultural weather forecasts and climatological information	This entails discussion of the weather, the climate and how it is changing, and producers' needs to manage climate risks as part of their planning of agricultural and pastoral activities. It includes explanations of the dates of beginning and end of the agricultural season and its length, guesswork and choices about the season start dates, seasonal forecasting of likely rainfall expected in July, August and September from a qualitative viewpoint, and the application of this; and training on the SPIEA rain gauge, consisting of a presentation of the theoretical aspects and practical exercises on how to install and read the rain gauge, as well as completing the data collection sheet	Farmers and stock breeders
To strengthen skills in revenue-generating activities (RGAs)	Women and young people are the groups most vulnerable to the harmful effects of climate changes. Recurrent droughts due to climate change have led to a drop in agro-pastoral production in the above-mentioned localities. This situation has prompted large-scale abandonment of the land each year by able-bodied men,	Women beneficiaries

	<p>leaving only women and younger people, who are obliged to engage in small business to adapt. This business activity is based on gardening and the sale of dairy products and by-products from the livestock sector. These activities are themselves prone to the harmful effects of climate change. To improve people's incomes and strengthen their ability to adapt to the harmful effects of climate change, it proves necessary to promote RGAs (such as sewing, sheep fattening and grain mill management) and develop friendly societies.</p>	
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### 3.4. PANA Resilience financial statements 2010 – 2013

UNDP aid is deployed via the national method of execution. This is the method by which UNDP transfers resources to the national authorities for the implementation and management of programmes/projects. In this context, the Government is responsible for the management of all resources allocated to programme/project implementation (including audits). It also has to render account to UNDP for all allocated resources under its management.

Thus the aid is managed by the government departments responsible for planning, general activity management, drawing up reports, accounting, monitoring and evaluation. These departments are also responsible for supervising the staff who do the work, for achieving the aims of the projects, producing the expected results and using the UNDP resources.

Table 4 below is a statement of funds advanced and Project expenditure in the four years of its implementation in Niger.

#### 3.4.1. Statement of income and expenditure of the PANA Resilience Project, 2010 - 2013

Table 5 contains a detailed breakdown of the financial situation of the Project for 2010 to 2013, in terms of funding received and expenditure incurred.

**Table 5:** PANA Resilience Statement of Income & Expenditure, 2010 - 2013.

ITEM	2010		
	Income	Expenditure	Percentage spent
Activities 1	213,677,946	213,120,360	99.73
Activities 2	12,085,392	13,369,800	110.62
Activities 3	1,000,000	1,000,000	100
Activities 4	49,018,640	47,451,434	96.80
<b>TOTAL</b>	<b>275,781,978</b>	<b>274,941,594</b>	<b>99.69</b>

ITEM	2011		
	Income	Expenditure	Percentage spent
Activities 1	151,000,000	130,912,873	86.69
Activities 2	128,800,000	149,722,323	116.24
Activities 3	4,500,000	6,989,200	155.31
Activities 4	94,324,743	90,794,215	96.25
<b>TOTAL</b>	<b>378,624,743</b>	<b>378,418,611</b>	<b>99.94</b>

ITEM	2012		
	Income	Expenditure	Percentage spent
Activities 1	68,280,099	56,962,495	83.42
Activities 2	185,024,510	190,903,109	103.17
Activities 3	23,299,940	19,116,409	82.04
Activities 4	92,419,665	101,665,130	110
<b>TOTAL</b>	<b>369,024,214</b>	<b>368,647,143</b>	<b>99.89</b>

ITEM	2013		
	Income	Expenditure	Percentage spent (100%)
Activities 1	72,133,025	83,342,716	115.54
Activities 2	295,852,700	285,743,898	96.58
Activities 3	45,643,905	37,767,504	82.74
Activities 4	77,932,965	84,708,477	108.69
<b>TOTAL</b>	<b>491,562,595</b>	<b>491,562,595</b>	<b>100</b>

ITEM	2014		
	Income	Expenditure	Percentage spent
Activities 1	-	-	0
Activities 2	14,000,000	3,888,250	27.77
Activities 3	4,000,000	1,236,000	30.90
Activities 4	9,000,000	6,440,442	71.56
<b>TOTAL</b>	<b>27,000,000</b>	<b>11,564,692</b>	<b>42.83</b>

**Notes:** 1- Expenditure on Project Activity 2 overran the budgeted amounts for 2010 (110.62), 2011 (116.24), and 2012 (103.17). A similar excess of expenditure occurred for Activity 1 in 2013. Despite these recorded excesses, a large balance remained at the end of the budget year (see below).

Balance 2010	Balance 2011	Balance 2012	Balance 2013	Balance at 30/04/2014
840,384	206,132	377,071	-	<b>15,435,308</b>

As of 30/04/2014, the budget balance for the Project stood at XOF 15,435,308.

### **3.4.2. Co-funding**

The planned level of co-funding was XOF 5,475,000,000, whereas the amount spent by PANA Resilience was XOF 5,128,041,671, representing 93.66% for the four years in which the Project ran. It can be concluded that PANA Resilience performed well in this regard. Its performance was satisfactory (S) despite the suspension or abandonment of some projects, due to political instability. Table 6 below presents the co-funding spent on each activity in the areas within the scope of the Project.

**Table 6:** Co-finance deployed from 2009 to 2013

Municipality	Activities									Total (XOF)
	Bench terraces constructed	Bench terraces restored	Feed banks	Agri-cultural material shops	Wells	Market gardening/ irrigation	CES/DRS	Training	RGAs	
Tondikiwindi	175,500,000		40,015,615		160,000,000	131,000,000	75,000,000	38,000,000	1,906,000	<b>621,421,615</b>
Chétimari		10,589,000	5,900,000		296335,022	448,075,805	122,999,500		62,200,000	<b>946,099,327</b>
Niamey 1					122458,000	8,419,227	44,959,600	4,900,000	30,040,000	<b>210,776,827</b>
Kaou										
Roumbou	45,522,753	1,350,000	33,193,880			2,224,600	12,000,000		40,035,095	<b>134,326,328</b>
Aderbissinat	61,089,210	982,000	32,300,000		268187400	9,014,000	10,361,000	53,612,986	8,163,350	<b>443,709,946</b>
Tanout	20,750,000		65,074,500		23 000 000		54,000,000	2,159,000	54,150,000	<b>196,133,500</b>
Loga	45,401,307	2,640,722	30,755,300	7,529,000	90,727,828	15,777,224	437,782,499	77,638,220	<b>17,322,028</b>	<b>725,574,128</b>
Project MAECD(ACDI)										<b>1,850,000,000</b>
<b>total</b>	<b>348,263,270</b>	<b>15,561,722</b>	<b>207,239,295</b>		<b>937,708,250</b>	<b>614,510,856</b>	<b>757,102,599</b>	<b>176,310,206</b>	<b>213,816,473</b>	<b>5,128,041,671</b>

### 3.4.3. Status of the recommendations from the four Project management audits 2010 - 2013

The main points noted by the auditors are summarised below:

- late release of funds by UNDP;
- shortage of petty cash for expenses;
- lack of transparency in fuel management (missing vehicle logbooks and records of fuel dispensed); and
- lack of appropriate software for account management of funds.

#### IV – RECOMMENDATIONS, FURTHER ACTION AND STUDIES, CONSTRAINTS AND OPPORTUNITIES, CHALLENGES AND LESSONS LEARNED

The final evaluation team, after field visits to all pilot sites, was able to proceed with its analysis of the results and establish what recommendations and further action and studies to propose. Table 7 contains the recommendations, further action and studies in priority order based on urgency. **The criteria (relevance, effectiveness, efficiency, impact, sustainability and gender) are cross-cutting: they apply to all the activities.**

**Table 7:** Recommendations (text highlights urgent recommendations in bold, and priority recommendations in italic); proposals for further action; proposals for further studies

FINDINGS	RECOMMENDATIONS (with scale of priorities)	ACTION
There must be more formal capitalisation on results	<i>Ensure effective capitalisation on lessons learned (including dissemination of these lessons)</i>	All ministries involved
Insufficient communication	<i>Improve communication of Project results to all levels. N.B: a communications expert has just been commissioned to respond to this shortcoming</i>	CNEDD; Ministry of Communication
Thin coverage for a Project with such positive results	<i>Go nationwide as soon as possible</i>	Central government
The set of indicators necessary to manage climate risk is defective. In response, it is proposed to adapt the climate alert system to make it more efficient, by setting up weather stations with multiple parameters on suitable sites.	<i>Improve methods of adaptation to respond better to climate risk</i>	Ministry of Transport (weather forecasting)
Several successful Project activities deserve to be spread to neighbouring municipalities by ‘ripple effect.’	<i>The successful pilot activities must be extended by co-funding (they started with ACDI and CBA)</i>	Municipalities; ministries involved; private sponsors; NGOs

It is necessary to continue the anti-erosion works on the eroded plateaux.	<i>Continue this work on a ‘cash for work’ or ‘food for work’ basis</i>	Municipalities; ministries involved (Environment, Agriculture, Livestock and Agricultural Engineering)
Skills enhancement applies to all beneficiaries who want to run their businesses properly.	<i>Support the strengthening of technical skills in money management, setting up a profit and loss account, and microfinance management</i>	Municipalities; CNEDD
The countrymen await practical results from the research into koris and gulleys.	<i>Find funds and projects to follow on from the completed research (koris and gulleys)</i>	CNEDD; UNDP; ministries involved
Large numbers of women must have access to these learning programmes (currently some women are prevented from attending, because they live a long way from the needlework centres).	<i>Set up needlework training centres and develop other RGAs from which women can profit</i>	Municipalities or co-funding sources
All Project municipalities should be able to issue certificates bearing the joint signatures of PANA and the municipality.	<i>Extend the issue of professional seamstress certificates to all Project municipalities</i>	CNEDD; municipalities

<b>FINDINGS</b>	<b>FURTHER PROPOSALS</b>	<b>ACTION</b>
Food security should include a nutrition plan. Enriched flours are milled from local products and may be a solution to malnutrition in periods of extreme drought. The proposed action plan has two aspects: health; and RGAs. It may help to counter malnutrition, by devising a food of optimum nutrition quality, adapted to infant needs and tastes and made to be economically and socially affordable. The processing of agricultural materials adds value to local produce.	<i>Support women’s groups in the production of enriched flour</i>	Ministry of Agriculture
There is no village ‘spokesperson’ on the detection of malnutrition in infants under the age of five, breast-feeding mothers and pregnant women. These village figures play a primary role, especially in family planning (contraception, raising awareness of sexually transmitted diseases, behaviour entailing risk, etc). They assist the healthcare specialists in basic routines and primary healthcare ( <i>cf. annexed technical sheet 2 for more details</i> )	<i>Support food safety issues by means of a community support and monitoring programme on nutrition, with nomination and training of ‘godmothers.’</i>	Ministry of Health

Nutrition monitoring is a fundamental aspect of the protection of mothers and children from the consequences of food insecurity. In practice, this necessitates effective and lasting improvement of the nutrition monitoring system at all levels ( <i>cf. annexed Technical Datasheet 3 for more details</i> )	<b>Support the technical study to set up a reliable and permanent system of nutrition monitoring at all levels</b>	Ministry of Agriculture and SAP
Project: “Seed for Repairs to Rural Tracks.” Specifically, small producers will receive the set of seeds (under contract with an NGO or FAO, for example). In return, they will undertake to repair rural tracks. Beneficiaries would remake tracks under structured general co-ordination under the auspices of the relevant ministries ( <i>cf. annexed Technical Datasheet 1 for more details</i> ).	<b>Support a programme of laying and repairing local tracks</b>	Ministries of Transport, Equipment and Agriculture
There is no clinic, and residents cannot travel to obtain care.	<b>Support the set-up of out-patient clinics</b>	Ministry of Health; UNICEF

<b>FINDINGS</b>	<b>FURTHER STUDY PROPOSALS</b>	<b>ACTION</b>
These family units (chicken breeding) could produce eggs. The protein contributed by the eggs (total protein) represents a better way of controlling food insecurity. The children would be the first to benefit, as well as pregnant and nursing mothers	<b>Support the socio-economic, environmental and financial study for the set-up of poultry units in villages</b>	Ministry of Livestock
Solar power is one way to make up for the lack of electricity in rural areas, and supply electricity to clinics or schools and power water pumps for crop irrigation.	<b>Support the technical and financial study for setting up solar panels</b>	Ministry of Energy; National Solar Energy Centre (CNES)
The plan for bread ovens is based on local seeds, which they put to good use (produce such as maize, millet or cassava). Women can receive training at the INRAN processing unit.	<b>Support the technical and financial study for the provision of bread ovens for women’s groupings</b>	Ministry of Agriculture; INRAN

**N.B: the results of all activities without exception meet the criteria of the OECD CAD analysis (relevance, effectiveness, efficiency, impact, sustainability and gender).**

#### 4.1. Pros and cons

**Cons:** After four years in implementation, the Project shows the following drawbacks:

- No profit and loss account for market gardening, needlework centres and sales of improved seed. N.B: the support given by the Project came more in response to an emergency than for development initiatives. The support should be better analysed in future.

**Pros:** The Project has developed a very wide capacity reinforcement programme, with an emphasis on deployment of schools and large plant (e.g. rain gauges, farming implements and grain mills). There are also systems for improving the deployment of field activities as far as possible and thus promoting initiatives which involve members of the public in development and mutual assistance between villages (*cf. chapter on strengthening of capacity*).

From this point of view, the opportunities identified in the Project are as follows:

- The Project has promoted a genuine **quality-based approach at organisational level**. This has yielded results. Support from all the technical departments and capacity strengthening partners underpins this approach and includes:

- \*technical advice and support at the preparatory stage of initiatives and projects, including implementation and follow-up;

- \*urging, and raising awareness about, capacity strengthening

- \*spreading information and co-operation between stakeholders

A woman villager in Tanout: "I have to fetch water from the well and hump it in drums to the garden. The lack of water sources close to the gardens makes life very difficult for us."

#### 4.2. The challenges: lessons to learn

There is at least one **major challenge** of note: **boosting water supply capacity** is a fundamental problem found at all pilot sites. Project result 2 pays scant attention to this.

-Another challenge will be to ensure that **the results endure in the long term**. This will take time: for adjustment and for close and regular monitoring, both by the technical services and the partners. It would be useful to devise complementary microprojects, alongside the activities already under way (*cf. paragraph on sustainability*).

**The following lessons have been learned from the Project:**

- Collective bodies, groupings and local communities must be effectively involved in carrying out the Project activities. A hands-on approach, dialogue, and adaptive management permit development activities to go ahead, even in insecure situations with fragile ecosystems.
- Highly labour-intensive ("HIMO") works, such as land reclamation, can be remunerated partly on a cash for work basis. This increases the ways in which vulnerable groups can access the food security assets put in place, e.g. cereal banks and livestock feed banks;

A Tondikiwindi countryman: "I earned 'cash for work' for constructing bench terraces and semicircular basins. Then I could afford to buy a cart and a sheep for Tabaski, and marry another wife. All this saved me from having to join the exodus."

- The reclamation of degraded land, combined with restoration of degraded ecosystems, helps to stem the flow of people away from the land. The earnings from the works of planting and bench terrace building will help to kick-start other RGAs;
  - Mastery of certain crop-growing techniques by growers, e.g. micro-dosing and basal dressing;
  - The new agricultural varieties introduced mature earlier than the local varieties;
  - Community support with protection and maintenance is necessary to the success of some activities, such as plantations;
  - The adaptation approach takes a long time to follow through;
  - Mastery of professional seed growing with uptake of the technology package relating to production management, as a result of the various training courses undergone by producers;
  - The sustainability of certain ‘beacon’ activities such as market gardening, the use of improved seeds and sewing workshops is noticeable at all sites.
- In terms of follow-up and evaluation, the Project included follow-up of the activities in due course. The experts, technicians and UNVs regularly monitored the activities and communication processes.

**- In terms of results from each activity:**

**- Use of improved seed:**

**\* *Lessons learned***

Comment by a Dakoro resident: “These seeds enable us to grow much more. We hope our lives will improve considerably one day. We’re just at the start of a process...”

***Successes***

- Real enthusiasm on the part of producers;
- Smallholders learn to use improved seed (seed banks set up);
- Technical and cultural pathway is properly followed;
- Seed production is mastered (this sector is developed from a local level).
- Yields are better from introduced than from local varieties;
- Fertilizer microdosing (three fingers) stimulates good vegetative development of plants;
- Fungicides protect the seeds from rodents, termites and other parasites;
- Thinning to three plants results in larger sizes;
- 1 x1 metre sowing density is a way of maximising production.

### ***Limitations***

- Cropping techniques not strictly followed;
- Seeds degenerate due to weak technical monitoring by agronomist researchers and technical officers.

### ***Reproducibility***

The practice can be reproduced using tools such as: “school in the fields,” the “concept village,” “on-the-job training “ or “learning by doing” and “beacon farmers,” which consists of demonstration on the land by countrymen.

- **Sheep and goat fattening for women:**

### ***\*Lessons learned***

#### ***Successes***

- Availability of feedstuffs;
- Successful management of feed banks;
- Affordable price.

#### ***Limitations***

- Difficulty of replenishing stocks at local level;
- Risk of management committees or authorities misappropriating or hoarding stocks.

### ***Reproducibility***

Women can easily reproduce sheep and goat fattening due to:

- small ruminants are easier for women to maintain (feed) than other animal species;
- women can readily restrain them (easier to handle than cattle);
- quick breeding: short gestation (5 - 6 months); births of twins are very common (2 - 3 goats per litter);
- easy to sell (sheep).

- **Reclamation of eroded land:**

### ***\*Lessons learned***

#### ***Successes***

- Mastery of bench terrace building techniques;
- Mastery of production and planting of woody fodder species;
- Reduced abandonment of the land;
- Households with higher incomes can afford expenditure on capital items

#### ***Limitations***

- Little or no caretaking of reclaimed sites;
- Lack of appropriate management of these reclaimed sites.

### ***Reproducibility***

It is not easy for countrymen to reproduce bench terraces, due to the necessary cost and labour. They tend to be accepted both as a method of sustainable land management and adaptation to climate change, and as a poverty reduction strategy (by passing on funding in the form of cash for work).

#### **- Market gardening and small-scale village irrigation**

#### ***\*Lessons learned***

##### ***Successes***

- Control of hygiene practices around wells;
- Development of market gardening.

##### ***Limitations***

- Insufficient reinforcement of capacity of well management committees;
- Lack of rational well management.

### ***Reproducibility***

Cost makes it difficult for local communities to bore cemented wells. However, to ensure rational use of these watering places, the Project set up and trained management committees responsible for managing the drilled wells and for hygiene around them.

#### **- Needlework centres**

#### ***\*Lessons learned***

##### ***Successes***

- Mastery of sewing/stitching techniques;
- Mastery of machine maintenance;
- Creation of a fund and implementation of other RGAs (sheep fattening);
- Selling clothes in some centres;
- Social bonding between learners.

##### ***Limitations***

- Learner illiteracy and relatively brief course length;
- No maintenance expert for machines;
- No monitoring of women on the job;
- Some types of machine (embroidery) cannot be used, due to lack of electricity supply;
- No communal self-assessment.

### ***Reproducibility***

The sewing promoted by the PANA Project has created jobs, made women more autonomous and led to the development of other RGAs such as sheep fattening (Tondikiwindi).

A young Tamollolo woman: "With the PANA Project, we 'saw the light.' We weren't doing very much. Now we've learned a trade. We're going to sell our output to earn incomes and raise our families' living standards."

- **Processing and conserving agro-sylvo-pastoral products**

*\*Lessons learned*

*Success*

- Mastery of groundnut oil extraction method.

*Limitation*

- Machinery servicing and maintenance.

*Reproducibility*

The installation of grain mills and groundnut oil presses makes women more autonomous, by diversifying income sources at PANA sites. It is up to the beneficiaries to take up this practice for themselves.

- **Weather information and farming weather forecasts**

*\*Lessons learned*

*Success*

- Countryman observers have learned how to read rain gauges and forward rainfall data for the records.

*Limitation*

- Rain gauge maintenance.

*Reproducibility*

The weather stations set up in the villages have improved the quality and reliability of seasonal and daily forecasting in the areas covered by the PANA Project. The involvement of the mayors is a key factor in the takeover and permanence of these stations.

## **V – REPORT ON PROJECT-LEVEL COMMUNICATION**

Concerned to ensure a high profile for these activities, the PANA Project ran several communication initiatives during the four years of implementation of its first stage. However, in order to make the Project's work more widely known, it is vital to reinforce this communication, especially surrounding the lessons learned from the Project. Table 8 details the communication initiatives carried out in order to profile the PANA Project activities.

**Table 8:** Communication surrounding the Project work

Year	Communication work	Target groups	Media
2010	Presentation of the Project to the national Project launch workshop and first meeting of the steering committee at the Sani Bako Auditorium, Ministry of Foreign Affairs and Cooperation	Representatives of central government, partners, NGOs and municipalities	National television Niamey private TV channels Niamey Workshop
	Writing and publication of articles about the Project	General public	CNEDD Information Newsletter
	Official launch of CES/DRS activities	Representatives of central government, partners, NGOs and local people	National television
	Presentation of PANA Project activities to the workshop for the launch of the Adaptation Learning Programme (ALP) of the NGO Care Niger.	Representatives of central government, partners and NGOs	Dakoro Workshop
	Presentation of PANA Project activities to the discussion workshop with a view to creating adaptation co-ordinating body at Maradi.	Representatives of central government, partners and NGOs	Maradi Workshop
	Filming and broadcasting a documentary on the Project achievements	General public	National television
	Media coverage of the launch of the various Project activities	General public	Public and private national media
	Media coverage of the national and local training workshops	Representatives of central government, partners, NGOs, OCB, local councillors,	National television Privately-owned TV channels Community radio stations

<b>2011</b>		customary authorities and beneficiaries	Press
	Information and raising of awareness about climate change and issues of adaptation	Residents of the Project action zones	Community radio stations partnered with the Project
	Creation and display of sign boards	Central government, partners, NGOs and public	Project action zones
	Production and distribution of posters, brochures, maps and calendars	General public, partners, national and international NGOs, members of universities and CC experts	National, regional and international workshops and public conferences
	Writing and publication of articles on the Project	General public	CNEDD Information Newsletter
	Distribution of Lessons Learned in Project action zones. Italy-CILSS Fund to Combat Desertification for the Reduction of Poverty in the Sahel (LCD/RPS). The target are eleven (11) municipalities in the Départements of Loga, Illéla and Keita	Representatives of central government, partners, NGOs, OCB, local councillors, customary authorities and beneficiaries	Workshops  Community radio stations
	Presentation of PANA Project activities to the second meeting of the coordinating body for parties involved in the field of adaptation to climate change	Representatives of central government, partners and NGOs	National television  Tahoua Workshop
	Participation of Tanout seed producers in the Zinder agro-sylvo-pastoral fair.	General public	Fair
	Presentation of the Project achievements on a stand at the Africa-Brazil-France international tripartite seminar on desertification in		Seminar

	Africa, held in Niamey		
2012	Media coverage of the launch of the various Project activities	General public	National television
	Filming and broadcasting of a documentary on the Project's achievements	General public	National television
	Continued information and raising of awareness about climate change and issues of adaptation	Residents of the Project action zones	Community radio stations partnered with the Project
	Creation and display of sign boards	Central government, partners, NGOs and public	Project action zones
	Manning a stand displaying results of the PANA Project at the first edition of the International Forum on Youth and Green Jobs		Seminar
	Organisation of a side-event	Climate experts, international NGOs and partners	Conference of the Parties (COP) 18 on CC in Doha (Qatar)
	Raising of awareness about climate change and adaptation measures	General public, academics, civil society and the media	Conferences, workshops
	Popularise the approaches, methods and media for evaluation of good practice, based on the Adaptation Learning Programme	General public	CNEDD website www.cnedd-ne
	Interviewing  Writing and publication of articles on the Project	General public	CNEDD information newsletter;  L'Événement, La GRIFFE, La Roue de l'Histoire, Le Sahel Quotidien and Sahel Dimanche

	Presentation of PANA Project activities to the third meeting of the co-ordinating body for parties involved in the field of adaptation to climate change	Representatives of central government, partners and NGOs	National television  Zinder Workshop
	Organisation of two sessions of the Project steering committee	Representatives of central government, partners and NGOs	National television  Dosso and Zinder Workshops
2013	Media coverage of the launch of various Project activities	General public	Public and private national media
	Filming and broadcasting a documentary on the Project's achievements	General public	National television
	Making eight (8) short films on the Project's activities in each municipality	General public	CD
	Continued information and awareness raising about climate change and issues of adaptation	Populations of Project action zones	Community radio stations partnered with the Project
	Labelling Project materials to make them visible and traceable at local level	Central government, partners, NGOs and public	Project action zones
	Creation and display of sign boards	Central government, partners and NGOs	Project action zones
	Sharing of lessons learned and good practices on community-based adaptation at the workshop organised by CARE in Cotonou, Benin	Projects, NGOs and African and international experts involved in the adaptation field	Cotonou (Benin) Workshop
	Interviewing  Writing and publication of articles on the Project	General public	CNEDD Information Newsletter  L'Événement, La GRIFFE, La Roue de l'Histoire, Le Sahel

			Quotidien and Sahel Dimanche
	Holding a session of the extraordinary steering committee of the Project and the workshop to launch the PANA-ACDI Project	Representatives of central government, partners and NGOs	National television Privately-owned TV channels Press  Niamey Workshops
	Presentation of PANA activities	Climate experts, international NGOs and partners	COP 19 on CC, Warsaw (Poland)
	Sharing the lessons learned and good practices from the PANA Project at the Workshop on risk and disaster management in Africa		Dakar (Senegal) Workshop
	Display posters on PANA achievements	Climate experts, international NGOs and partners	COP 11 on Desertification, Windhoek (Namibia)
	Poster of PANA good practices displayed at Fourth Global Conference under the Satoyama initiative, held in Japan. In Niger, this merited the award of the Prize for Excellence in Best Practices in the Restoration of Agricultural Production Ecosystems.	Climate experts, international NGOs and partners	Global Conference on the Satoyama Initiative, held in Japan
	Presentation of PANA Project activities to the fourth meeting of the body co-ordinating the parties involved in the field of adapting to climate change	Representatives of central government, partners and NGOs	National television  Tahoua Workshop

## VI. THE PANA PROJECT AND THE QUESTION OF ITS SUSTAINABILITY

The PANA Project can only count as sustainable development if it takes simultaneous account of environmental, technical, economic and institutional sustainability. Sustainability is not a static condition, but the result of a set of capabilities (environmental, technical, economic, socio-cultural and political). These enable the persons concerned to adapt to new constraints and set themselves new horizons, while retaining their independence, identity and effectiveness. Sustainability is always dependent on external changes beyond control, which may be natural, economic or political. So how does the PANA Project measure up, in terms of sustainability from the viewpoints just described?

**The PANA Project and environmental sustainability: this is the first component of the notion of sustainability.** It exists when the methods of exploiting natural resources preserve the existing potential and allow it to regenerate and even improve. PANA certainly does this, in particular through its activities of land reclamation, construction of anti-erosion works which preserve ecological potential and even attract new flora and fauna (bushes with local medicinal uses, small rodents etc).

**The PANA Project and technical sustainability:** this is the second component of the notion of sustainability, and exists when two conditions are met:

- when the technical means used suit the needs and economic and social conditions of growers (this is true of the PANA Project, for which the techniques were scientifically tested, as with the improved seed). It also presupposes that the technical means are reliable, that growers have regular access to them, that they are economically viable (this is always the case, because the improved seed is accessible and does generate very high yields). These technical resources also have to be socially acceptable, to facilitate technical innovation (this always applies, since the support of local people is unanimous. Groupings, committees and cooperatives have formed to maximise local socio-economic potential);

- when the technical means are really accepted by users, they are passed on from the 'elders' to the 'younger generation' who master them (e.g. ability to ensure maintenance and procurement and to adapt the technique or its conditions of use to a changing environment). The PANA Project does these things.

**The PANA Project and economic sustainability:** this is the third component of the notion of sustainability. It is always hard to assess, because it is closely dependent on external changes which are seldom under producers' control. In a given context (that of the Project's eight pilot municipalities), economic sustainability can be said to become a genuine probability if:

- conditions seem to have been created for replication and extension of the activities. For example, where women join groupings for RGAs, these conditions are: the women's ability to assemble stocks, to prospect the markets, to set prices which meet their expenses and pay for their work, to amortise their capital expenditure, and run their business at even a modest profit. In this regard, the PANA Project does meet this first requirement;

- if the technical and organisational changes effected by the producers, and their choices of whether to intensify their production and/or diversify it result in secure coverage of their needs for subsistence and a money income whether they use these to make up for various

forms of capital depletion or, of course, to build up even modest savings. It can safely be said that all the PANA Project activities launch these processes.

**The PANA Project and social sustainability:** this is the fourth component of the notion of sustainability. It presupposes that development work leads to social restructuring. This means that local society has to draw up the new rules necessary to rise to the challenges it faces in the arena of socio-cultural continuity (the PANA Project falls within this context, because it integrates local socio-cultural components).

**The Project and institutional sustainability:** this fifth component of the notion of sustainability assumes that new institutions will adapt, at local or national level, to guarantee the gains from projects in fields such as: liaison between development organisations; control (by agreed means), security of land tenure, etc (the number of agreements made with the institutions concerned demonstrate the government interest in such a sustainable development project).

## VII. CONCLUSION

The PANA Resilience Project ran in partnership with other projects under way in the areas most vulnerable to climate change. It carried out work to adapt local people to the effects of CC in eight municipalities spread across the eight regions of the country. After identifying the population's adaptation needs, the project set itself 15 priority targets. Local people are proud of the Project for this reason, and remain grateful to it for all these technologies developed on their land. Flagship results of the Project include: distribution of improved seed; development and promotion of market gardening by women of the municipalities; creation of needlework centres for women of all ages, also sheep fattening; the construction of cereal, fertilizer and pesticide banks; and reclamation of eroded plateaux by constructing bench terraces for fodder crops. The Project has also given its beneficiaries tools such as rain gauges, farming implements, grain mills, community radio stations etc.

The final evaluation team have issued recommendations and proposed further action and studies. They have also recorded the pros and cons of the PANA Project and written up the lessons learned. First and foremost, with regard to capitalising on the Project results, it seems essential to hold a forum with all partners, to take up the results of the Project activities. As for resource mobilisation, it would be desirable for the municipalities to provide financial support for activities not funded by PANA, and future projects. Finally, with regard to the needlework centres, it would be necessary to boost the performance of this business by contributing specific products and materials (fabrics, thread, knitting machines etc.) to add to the current market. Please note that the lion's share of the output was being sold on, in all municipalities visited by the evaluation team. Some centres were even taking local orders. Some of the income from these sales contributes to working capital.

The determination of local people, the quality of the Project management, combined with certain practical arrangements made in the field at the Project sites are already testimony to the relevance, effectiveness, efficiency, impact and the very sustainability of the Project activities, all of which took account of gender as a cross-cutting factor.

Based on the PANA Programme and the activities of PANA Resilience, the Programme of Community Action on Climate Change (PACRC) has identified other vulnerable municipalities in each region of the country, with a view to implementing these activities.

Finally, and still based on the activities of the PANA Resilience Project, at least three projects are now in progress or at the pre-launch stage, concerning adaptation to the present and future impacts of climate change. These projects and programmes are as follows: the PANA Resilience Project, co-funding by Foreign Affairs, Trade and Development Canada, the Africa Climate Adaptation and Food Security Project and the Project for Regionalisation of Community-Based Adaptation, all of which seek better control of food insecurity, by boosting the resilience of local people in the face of climate change.

## **ANNEXES**

**ANNEXE 1:** List of all stakeholders’ responses to the expected results of the Project in terms of effectiveness, impact, sustainability and gender

<b>STAKEHOLDERS</b>	
How far has the Project achieved the products and effects expected at the time of its launch?	
<b>PROJECT TEAM</b>	<p><u>In general:</u></p> <ul style="list-style-type: none"> <li>- The team’s enthusiasm and synergy have made a highly effective contribution to the Project’s success (determination to achieve the expected results, and commitment from all partners);</li> <li>- Technical services played an effective back-up role and helped pave the way to fine achievements;</li> <li>- The community approach to motivating local people proved very fruitful.</li> </ul> <p><u>In terms of good practice:</u></p> <p>Seven good practice booklets are available. The subjects are: agriculture and food security; stock breeding and fodder crop enhancement; environmental conservation; market gardening and small-scale village irrigation; diversification of vulnerable households’ income sources; meteorological information and agricultural weather forecasting; and environmental education for sustainable development.</p> <p>Indicator boards were set up to record the Project’s achievements;</p> <p>The Project contributed to publication of the “info-CNEDD” newsletter;</p> <p>Materials supplied by the Project were labelled;</p> <p>The adaptation co-ordinating body met annually in Tahoua.</p> <p><u>Results obtained:</u></p> <p>280 producers, including 70 trained and managed professional growers of agricultural seed;</p> <p>8 shops for agricultural input materials opened and trading;</p> <p>555 ha of eroded land restored as pasture;</p> <p>1555 km of firebreak strips created;</p> <p>160 SPIEA rain gauges installed in the municipalities covered by the Project;</p> <p>8 Municipal Development Plans (PDC) updated to include the climate change aspect;</p> <p>79 microprojects for RGAs (market gardening, livestock fattening, sewing and small-scale processing units);</p>

16 sign boards giving information about the Project's work were set up on two approach roads to each municipality; Project materials were labelled, visible and locally traceable.

3 documentary films on Project activities completed each year

8 short films were made of the Project activities in each municipality;

- A member of the Project Management Unit in Senegal shared experience of PANA;
- A poster of PANA good practice was displayed at the Fourth Global Conference on the Satoyama Initiative, held in Japan;

Two members of the Project Management Unit shared their experience of PANA at the workshop for sharing lessons learned and good CBA practice organised by CARE in Cotonou, Benin.

Ever-wider development of synergy in work by stakeholders to adapt through the meetings of the co-ordinating body of parties involved in adapting to climate change.

In terms of Project steering and implementation:

Sub-activities carried out:

- meetings of the steering committee
- training of Project personnel in job-related matters, to improve their action in the context of adaptation to climate change;
- meetings between Project Management Unit and UNVs.

Main results achieved:

6 sets of minutes of meetings of the Project steering committee are available;  
8 reports of special-subject training courses;  
4 sets of minutes of meetings between the Project Management Unit and UNVs.

In terms of Project management, follow-up and reporting:

Sub-activities carried out:

- assignments to follow up completed project activities
- planning and reporting documents drawn up
- meetings arranged between the co-ordinating body and stakeholders in the field of adaptation to climate change.

	<p><u>Results achieved:</u></p> <ul style="list-style-type: none"> <li>- Reports of follow-up and supervisory assignments;</li> <li>- 4 annual work plans;</li> <li>- 17 quarterly activity planning sessions;</li> <li>- 17 quarterly activity reports;</li> <li>- 4 annual reports;</li> <li>- opinions and advice given to providers and beneficiaries of Project activities;</li> <li>- activity data and information gathered.</li> </ul> <p>The effects of these results were greater than expected. Just one drawback: the late disbursements of finance.</p>
<p><b>STEERING COMMITTEE</b></p>	<p>Since 2012, the Government has followed the I3N strategy, as a successor to SDR (the Rural Development Strategy). I3N comprises five lines of approach:</p> <ol style="list-style-type: none"> <li>1. Crop development and environmental conservation;</li> <li>2. Creation and supply of markets;</li> <li>3. Improvement of local people’s resilience;</li> <li>4. Improvement of nutrition; and</li> <li>5. Creation of a favourable environment for these lines of approach (especially co-ordination, follow-up and evaluation and advocacy).</li> </ol> <p>The PANA Project is a perfect fit with the government’s vision and has positive repercussions on:</p> <ul style="list-style-type: none"> <li>- action against poverty;</li> <li>- gender inclusiveness;</li> <li>- improved crop yields; and</li> <li>- synergy and cohesion between all partners.</li> </ul> <p>The Project set out to provide a powerful boost to local capacities:</p> <ul style="list-style-type: none"> <li>- tooling for the municipalities (especially in terms of RGAs, market gardening, livestock farming and seed producers).</li> <li>- raising awareness/training in the ‘climate change’ aspect. Adjacent municipalities copied this activity (PDC).</li> <li>- professional seed growing generates immediate income.</li> </ul> <p>The slow and complex procedures for releases of funds remain the principal bottleneck.</p>
<p><b>MANAGEMENT COMMITTEE</b></p>	<p>Those responsible told us that the warehouses were well kept and equipped with weighing instruments. Management seemed to be rigorous: seed distributions and fertilizer sales were fair.</p>

<b>UNDP</b>	According to the information fed back from the pilot municipalities, it seems that the Project meets local people's expectations of effectiveness, sustainability and gender inclusion.
<b>How lasting are the Project results, or how lasting can they be made?</b>	
<b>PROJECT TEAM</b>	The countrymen trained as professional seed growers have themselves become trainers, in solidarity with their fellow-farmers. The women want to go into business on their own account. Their activities are managed by management committees trained in social cohesion and small business management. The municipalities monitor the activities. Hence there are many reasons to expect that the activities will outlast the Project.
<b>STEERING COMMITTEE</b>	The 'gateways' to all regional and local activities and strategies are the municipalities. Each municipality decides its own development priorities. It can therefore be expected, with little margin of error, that the activities will continue in the field.
<b>UNDP</b>	Women have taken over certain activities (especially sheep fattening) to such an extent that, in one municipality, they have taken out insurance and loans for future activities. They are, therefore, totally independent and no longer need supervision to carry out their own initiative successfully.
<b>What have been the success factors, good practices and lessons learned?</b>	
<b>PROJECT TEAM</b>	<p><u>Success factors:</u></p> <ul style="list-style-type: none"> <li>- there has been a spectacular rise in production of improved seed;</li> <li>- the Project has strengthened countrymen's capacity, especially that of technicians;</li> <li>- the municipalities adjacent to the areas of the experiment have added the aspect of climate change by 'ripple effect'</li> <li>- numbers of professional seed growers are increasing;</li> <li>- management committees have been set up;</li> <li>- professional seed growing earns income;</li> <li>- women are present;</li> <li>- all stakeholders are determined and enthusiastic.</li> </ul>
<b>STEERING COMMITTEE</b>	<p><u>Main success factors:</u></p> <ul style="list-style-type: none"> <li>- increased production of improved seed;</li> <li>- land reclamation (bench terraces, semi-circular basins and dune fixation);</li> <li>- improvement of fattening;</li> <li>- opening of shops selling agricultural input materials;</li> <li>- research into koris and gulleys;</li> <li>- processing units set up.</li> </ul>
<b>MANAGEMENT</b>	Its rigorous management of the shops is attributable to good practice.

<b>COMMITTEE</b>	
<b>What constrained the implementation of the Project? What solutions were found?</b>	
<b>PROJECT TEAM</b>	<p>Late release of funds by the executing agency may not have put a brake on the Project, but at least hindered its progress.</p> <p>The many parties involved led to different levels of understanding and caused some delays (regular meetings were arranged to raise awareness and counter this problem).</p> <p>Changes in the people involved led to some delays (there was a need to brief the new people each time).</p>
<b>STEERING COMMITTEE</b>	Procedures, and slow release of funds.
<b>UNDP</b>	Beneficiaries' needs were taken into account and translated into action. As a result, the expectations were indeed those of people on the ground, not those of the development agencies. An understanding this concept is surely the key to the success of many field projects.
<b>Which effects of the Project were unexpected?</b>	
<b>PROJECT TEAM</b>	<p>The following results were observable:</p> <ul style="list-style-type: none"> <li>- a large increase in the production of improved seed;</li> <li>- professional seed growers;</li> <li>- opening of shops selling agricultural input materials;</li> <li>- some RGAs;</li> <li>- unexpected repair of a built structure (a dyke).</li> </ul>
<b>STEERING COMMITTEE</b>	Repair of a built structure (a dyke)
<b>UNDP</b>	It is no exaggeration that the Project was a resounding success in terms of environmental and socio-economic repercussions. The Project exceeded expectations (in proof of which the indicators had to be revised upwards).
<b>What are the post-Project recommendations, and recommendations for devising new, similar projects?</b>	
<b>PROJECT TEAM</b>	<p>As PANA Resilience is a pilot project, it is important to move towards full-scale roll-out (nationwide scope). To do this, it is necessary to be able to use all the communication tools.</p> <p>In terms of formulation of new projects, we would emphasise that the PANA Project mobilised funds for CBA.</p> <p>NGOs and other partners of government are drawing up similar adaptation projects. PANA is their benchmark for resilience in the face of climate change.</p> <p>It is essential to set up a climate monitoring system and effective, permanent monitoring and evaluation, so that the activities can continue (this will require government involvement).</p>
<b>STEERING COMMITTEE</b>	<p>Professional seed growers must be retained effectively (popularisation is one of the keys to the Project).</p> <p>Prompt and timely release of funds is necessary.</p>

	It would be necessary to revise the funding upwards for some zones.
<b>UNDP</b>	This Project now has to go full-scale. It is necessary for the competent government departments to take over, to cover a larger number of municipalities.
<b>In your opinion, what has been the Project's greatest success (if any)?</b>	
<b>PROJECT TEAM</b>	Increased production of improved seed; The team's willing dedication.
<b>STEERING COMMITTEE</b>	The ability of the most vulnerable people to better their living conditions.
<b>Are there any other major achievements you would like to mention?</b>	
<b>PROJECT TEAM</b>	<p><u>The communication initiatives carried out:</u></p> <ul style="list-style-type: none"> <li>- media coverage of the launches of the various Project activities;</li> <li>- continuing information and raising of awareness on climate change and questions of adaptation through the community radio stations;</li> <li>- creation and display of sign boards in the Project action zones;</li> <li>- production of posters, brochures, maps and calendars handed out at meetings;</li> <li>- presentations of PANA activities to the 19th Conference of the Parties on Climate change in Warsaw, Poland;</li> <li>- presentations of posters and films on the implementation of the PANA Project at COP 11, Windhoek, on desertification;</li> <li>- presentation of the PANA Project to the 18th Conference des Parties on Climate change in Doha, Qatar;</li> <li>- radio, TV and press interviews given about the PANA Project;</li> <li>- publication of articles on the PANA Project in newspapers (L'Evénement, La GRIFFE, Le Sahel Quotidien and Sahel Dimanche, the CNEDD quarterly newsletter, and La Roue de l'Histoire). These are also on-line newspapers.</li> <li>- Creation of the PANA window at the CNEDD website <a href="http://www.cneddd.ne">www.cneddd.ne</a></li> <li>- Filming of documentaries about the PANA Project, which were broadcast on Télé Sahel.</li> </ul>
<b>UNDP</b>	Following the excellent results achieved by the Project, a number of new projects are about to be launched. Co-finance by ACDI will be a feature.
<b>Have you noticed any weaknesses in the Project?</b>	
<b>PROJECT TEAM</b>	Pressure of work (overload due to UNDP procedures)
<b>STEERING COMMITTEE</b>	<ul style="list-style-type: none"> <li>- Limited financial resources (the Project activities could cover more municipalities)</li> <li>- Transport may significantly impede some activities, especially women's RGAs (sewing training centres are a long way from their homes, and husbands are reluctant for their wives to commute).</li> <li>- Training in pesticide use was not provided.</li> </ul>

Which areas still require support?	
<b>PROJECT TEAM</b>	<ul style="list-style-type: none"> <li>- Boring (to meet human and animal needs for water)</li> <li>- Soil study (linked to the distribution of improved seed)</li> </ul>
<b>STEERING COMMITTEE</b>	<ul style="list-style-type: none"> <li>- Treatment of the steep sides of the koris</li> <li>- Drinking water supply</li> <li>- More wells (to improve the water supply to market gardening)</li> <li>- More agricultural weather forecasting information (automated weather stations to record data on multiple factors)</li> <li>- Reinforcement of media of communication (spreading the message)</li> <li>- Raising countrymen's awareness and training them in pesticide use</li> <li>- Strengthening skills of managers at the Ministry of Agriculture (short, medium and long terms)</li> <li>- There is a national shortage of funds for the research sector.</li> </ul>
<b>UNDP</b>	Beneficiaries will state their needs and it will be necessary to act on them if they are not to lose heart, sooner or later.
Did the Project accurately target the priorities of Niger, the action zones and the beneficiaries? Was its approach adapted to the reality of its beneficiaries and partners?	
<b>PROJECT TEAM</b>	Yes, it did. Its approach was exactly aligned with the reality of the beneficiaries, who had themselves requested the Project.
<b>STEERING COMMITTEE</b>	The Project brought better living conditions to the people in its action zones, by increasing their output and income sources.
<b>UNDP</b>	The Project seems to have targeted people's needs as well and accurately as possible.
Are there any achievements or activities which are quite likely to last when the Project is finished?	
<b>PROJECT TEAM</b>	Cereal production from improved seed; sewing; sheep fattening; market gardening; and land reclamation, in particular
<b>STEERING COMMITTEE</b>	The results achieved have demonstrated that it is possible to forge ahead both in emergency relief and in development. The Project has brought very great benefits to vulnerable groups of people: increased production; RGAs set up for women; and cash for work for young people (building bench terraces, fields for fodder crops and semi-circular basins with the concomitant objective of reducing the outflow of young people from the land).
<b>MANAGEMENT COMMITTEE</b>	All the activities should prove lasting.
Can you tell us about the lessons which can be learned from this Project?	
<b>PROJECT TEAM</b>	<ul style="list-style-type: none"> <li>- The work done by the Project has helped to start a raising of people's awareness of environmental conservation and the harmful effects of climate change;</li> <li>- the effective involvement of local communities and bodies in implementing the Project activities; the hands-on approach; dialogue; and adaptive management enable the development activities to move forward, even in an insecure situation with a fragile ecosystem;</li> </ul>

	<ul style="list-style-type: none"> <li>- the market gardening activities add to beneficiaries' food supply, to counter the effects of drought and flood, and reinforce vulnerable groups' access to the food security assets provided, such as cereal banks and livestock feed banks;</li> <li>- growers' mastery of some growing techniques, such as micro-dosing and basal dressing;</li> <li>- it takes a long time to follow an adaptation approach;</li> <li>- the sustainable conditions for certain 'flagship' activities are noticeable at all sites, e.g. for market gardening, use of improved seed and sewing workshops.</li> </ul>
<b>STEERING COMMITTEE</b>	There are lessons to learn at various levels: organisational, information supply and participation. Besides, it must be emphasised that requirements expressed by local people have a much better chance of being realised in the long term, because they are grassroots expectations.
<b>To sum up, what can you tell us about this Project?</b>	
<b>PROJECT TEAM</b>	- The distribution of improved seed varieties exactly meets country people's needs
<b>STEERING COMMITTEE</b>	<ul style="list-style-type: none"> <li>- provision of materials: the Project supplied the women with everything they needed, including motor-powered pumps and drilling of extra wells</li> <li>- the use of weather forecasting information is operational in the field (rain gauges have been supplied and an officer has trained countrymen in reading the instrument; countrymen have been briefed on the right sowing seasons)</li> <li>- capacity has been strengthened (training on working in partnership, in community radio stations and climate change, etc.)</li> <li>- primary school head teachers have been trained to include climate change issues in the school curriculum</li> <li>- lessons learned are being shared.</li> </ul>
<b>MANAGEMENT COMMITTEE</b>	This is a Project with an excellent vision and results. Its activities will last.
<b>UNDP</b>	This has been a very good project, because it has alleviated poverty and food insecurity and strengthened vulnerable groups of people.

How far has the project achieved its expected results and effects?  
How far are the Project results permanent, or can they be made permanent?  
What have been the success factors, good practices and lessons learned?  
What constrained the Project implementation? What solutions were found?  
Which fields still need support?

**All NGOs**

**NGO EIP (Ecole Instrument de Paix) in Rombou (Dakoro - Maradi)**

This NGA is responsible for three activities under the PANA Resilience Project in Dakoro. They are: women's sheep fattening; installation and management of mills; and teamworking training for women. According to the NGO's Head Teacher, Yacouba Kadadé, each of these activities earns the people concerned considerable income, as described below.

In the case of sheep fattening, the women have formed a partnership of about 20 members, who rotate. They consult among themselves and with the NGA and head of the livestock service before each purchase of sheep. The duration of fattening is six months. The profit per sale ranges from XOF 70,000 to 80,000, in rotation. New women join the group with each rotation. The women's group has a bank account.

As for mills, the Project aim is to sharply reduce women's many chores in the villages. The mills are managed by the women in partnership, and have a fund and an account ledger.

EIP (the NGO) is responsible for giving teamworking in training to help the women. This training has enabled the women to be more astute and to learn useful things.

According to the Head of the NGO, all these activities have gone down well with local people.

Recommendation: the NGO has asked PANA Resilience to grant it a six-month extension to complete the monitoring of their ongoing activities.

### **NGO AGAJI - Tanout Entente, Urban Municipality of Tanout**

According to Harouna Watta, in charge of the NGO, the PANA Resilience Project activities such as improved seed, CES/DRS, market gardening, sewing, mills and sheep fattening are contributing to a strong improvement in the incomes and food of the village people concerned. According to Harouna, all the activities of the PANA Resilience Project are perfectly aligned with the aims of the 3N Initiative.

He added that the plantations at the constructed works have contributed to a significant improvement in the natural environment.

## **DEVOLVED GOVERNMENT DEPARTMENTS**

How far has the Project achieved its expected results and effects?

### **MAYORS**

All the mayors of the visited municipalities informed the PANA Project evaluation team that they were very satisfied. The positive effects of the Project had far exceeded their hopes, in terms both of environmental, social and economic impacts:

- increased incomes for communities
- professional techniques learned (with input from government departments and NGOs);
- reduction of poverty and food insecurity.

In terms of environmental impact:

- restoration of the environment through land reclamation;
- fertilisation of poor soil using sheep dung (courtesy of the sheep being fattened);
- introduction of new small plant species (medicinal uses);
- emergence of small rodents.

The mayors are unanimous in their commitment to help to continue the Project work. They say they are willing to make every effort within their means to provide material support for local people. Some of the action requires funds which exceed municipal resources, in which

	<p>case the mayors will enlist the support of higher tiers of government. Otherwise they can use the ‘cash for work’ or ‘food for work’ formulae to carry out certain works.</p>
<b>TECHNICIANS</b>	<p>All technicians of the municipal councils and sites visited informed the evaluation team that they were highly satisfied with the opportunity they had to manage local people, whose watchword was ‘determination.’ The free training courses had enabled the women trainees to acquire sufficient expertise to undertake complex roles such as market gardening, sewing, sheep fattening and bench terrace construction. Some women’s groupings had reached a stage of self-management at which they could manage their own capital at the bank and plan further action backed by micro-loans. The men had gained professionalism in growing techniques and land reclamation which had significantly increased their income. Training in management in partnership was enabling them to open up to a community approach with participation and reciprocal help within villages.</p>
<b>UNV</b>	<p>All the United Nations Volunteers reported to the evaluation team that they were enthusiastic about the work they had done with the people at these pilot sites and had been with them daily as they learned and performed their activities.</p> <p>They confirmed that the PANA Project really had increased the resilience of vulnerable groups of people, by implementing several RGAs. Methods of agricultural production had improved, through training in crop-growing techniques. Agricultural output had improved (supply of agricultural input materials and improved seed). The UNVs reported that good synergy had already existed between the various stakeholders involved in each zone (e.g. with the ALP/Care Project).</p>
<b>COMMUNITY RADIO STATIONS</b>	<p>The community radio stations do very important work through media coverage of rural areas. This includes radio programmes, documentaries, interviews and street interviews (‘vox pop’) to find out what people think. Whenever an activity started, the PANA Project funded the participation of governors, prefects, mayors and customary authorities at an inauguration ceremony covered by local and national TV stations. The PANA Project films a 20-minute documentary annually on its activities, with the help of TV sector professionals. There was local and national media coverage of the start of training workshops, for which a CD was produced and passed to PANA (the local radio stations were associated with this coverage). In June 2013, programmes were broadcast on the subject of improved seed. These included interviews with the PANA Programme Director, the monitoring and evaluation expert, the mayors, the UNVs, the technicians and local people.</p> <p>UNDP has undertaken to finance 23 community radio stations. These include Tondikwindi, which has no radio station yet, but will have one in 2014. For its part, the PANA Project has undertaken to set one up in the municipality of Tanout, likewise in 2014.</p>

How far are the Project results permanent, or can they be made permanent?

<b>MAYORS</b>	<p>All members of services informed the evaluation team that the spread of climate information, awareness of climate change, and increasing that awareness, were part and parcel of the information given to local people, through the community radio stations in particular. In fact the inclusion of climate change in local planning, acting on weather forecasts in relation to the sowing seasons, the availability of weather information through the installation of rain gauges and the use of improved seed had now been added to the principles and were therefore bound to become permanent.</p> <p><b>The UNV at TANOUT provided the following explanations:</b></p> <p><b>Environmental:</b></p> <ul style="list-style-type: none"> <li>- 55 ha of land reclaimed, 17,500 trees planted, grass seed sown on the reclaimed areas (in Tamalolo and Karaptou)</li> <li>- Fire breaks created (Karaptou)</li> <li>- 14 fire officers trained (Tamalolo and Karaptou)</li> <li>- Land reclamation: (Kolala)</li> <li>- 145 km of fire break strips created.</li> </ul> <p><b>Agricultural:</b></p> <ul style="list-style-type: none"> <li>- Training and support for 40 pilot growers including 10 professional growers of improved millet, sorghum and cowpea seed (10 phytosanitary team leaders were trained; producers were trained in methods of growing improved millet, sorghum and cowpea seed).</li> <li>- A stall was erected in Tamalolo for agricultural input materials, and a management committee was trained to run it.</li> <li>- Support was given to market gardening production, by sinking garden wells and providing gardeners with motor-driven pumps and sundry materials (Fal-Abdou and Maidiga). Market gardening sites were made secure by chain-link fencing.</li> <li>- 20 SPIEA rain gauges were set up, for direct reading in the community.</li> </ul> <p><b>RGAs:</b></p> <ul style="list-style-type: none"> <li>- 4 grain mills were set up in 4 villages of the Urban Municipality of Tanout: Fal-Abdou, Maidiga II, Garin Boka and Gourande. The mills serve 4 women's groups.</li> <li>- Sheep fattening for profit in three women's groups in the villages of Kandilwa (35 head of sheep), Guinea Alhazai II (35 head) and</li> </ul>
<b>TECHNICIANS</b>	
<b>UNV</b>	
<b>COMMUNITY RADIO STATIONS</b>	

	<p>Mainari III (40 head).</p> <ul style="list-style-type: none"> <li>- Needlework centres opened in Tamalolo (14 women trained), then in Tanout (20 girls trained).</li> <li>- Cash for Works for land reclamation and fire break opening.</li> </ul> <p><b>Training and other activities:</b></p> <ul style="list-style-type: none"> <li>- A study was carried out into background conditions of management committees.</li> <li>- Courses were held in working in partnership for producers' organisations in the municipality of Tanout.</li> <li>- All management committees were trained in the Project activities.</li> <li>- Teachers (primary school heads) were trained in climate change.</li> </ul> <p><b>The UNV in DAKORO provided the following explanations:</b></p> <ul style="list-style-type: none"> <li>- The activities undertaken were well performed.</li> <li>- The Project achievements were visited and inspected.</li> <li>- Beneficiaries were asked for their opinions.</li> <li>- Local people took over certain activities.</li> <li>- Experienced difficulties were surveyed and recommendations made.</li> </ul>
How far are the Project results permanent, or can they become permanent?	
What have been the success factors, good practices and lessons learned?	
<p><b>MAYORS</b></p> <p><b>TECHNICIANS</b></p>	<p>The beneficiaries have been highly appreciative of the PANA Project's achievements. Factors which have contributed to the Project's success with vulnerable groups of people are: the training courses given when each activity was launched; management by technicians; and people's determination to lift themselves out of poverty. It has given a new lease of life to many individuals, men and women who, through this new learning, will be able to lend new meaning to their lives.</p>
<p><b>UNV</b></p>	<p><b>TANOUT:</b> Success factors: groups of beneficiaries took over the Project activities.</p> <p>Lessons learned: methods of growing improved seed by pilot countrymen; methods of phytosanitary treatment learned by countrymen, etc.</p>

	<p>- information sharing among countrymen.</p> <p><b>ROUMBOU:</b> local people and local authorities took over activities. The use of improved seed spread by ripple effect. Weather information was broadcast. Fattening activities were shared in rotation, and the sewing business was continued.</p>
<b>COMMUNITY RADIO STATIONS</b>	<p><b>ROUMBOU:</b> weather information was broadcast. The community radio station became the channel of choice for information and broadcast information and climate programmes.</p>
<p>What constrained the Project implementation? What solutions were found?</p>	
<b>UNV</b>	<p><b>TANOUT:</b> The main constraint was insufficient spread of information (here, information is transmitted by mobile telephone, but there is no network). To solve this problem, an application was lodged to set up a community radio station. Funding has been granted for this to be set up (very probably in 2014).</p> <p><b>ROUMBOU:</b> The main constraint in the Project execution has been funding for the activities to be carried out. Another constraint noted affected certain activities, which sometimes had difficulty obtaining the help of a specialism at local level. The cumbersome purchasing procedures in a rural environment are also regrettable.</p>
<p>Which effects of the Project were unexpected?</p>	
<b>UNV</b>	<p><b>FAL-ABDOU:</b> One of the least expected effects was, without doubt, the three village wells which ran dry, resulting in all sorts of constraints on market gardening production.</p> <p>Wild animals attacked the sites through its unfenced side, causing crop devastation. It is desirable to add fencing on the unfenced side of the enclosure. A request has also been made to dredge one hectare of the pool, now silted up, on a cash for work basis. Another request has been made to dig an irrigation ditch from the pool (again by cash for work).</p>
<p>What are the post-project recommendations and recommendations for devising new, similar projects?</p>	
<b>UNV</b>	<p><b>ROUMBOU:</b> local people and authorities should capitalise on the various activities.</p>

	As for new projects, these must learn the lessons from the implementation of the PANA Project and act on the recommendations deriving from its evaluation.
In your opinion, has been the Project's greatest success (if any)? And which areas still need support?	
<b>UNV</b>	The irrigation sites (extension of their size and ring-fencing for security); rational solutions need to be found to water problems. <b>ROUMBOU:</b> support for the water supply and animal feed procurement
<b>COMMUNITY RADIO STATIONS</b>	<b>ROUMBOU:</b> material support and staff skills enhancement

## BENEFICIARIES

Tell us what the Project has done for you (answers from direct interviews with the beneficiaries/focus groups) What have you gained in terms of obtaining the means of your subsistence?	
<b>LIVESTOCK FARMERS</b>	<p>The beneficiaries are unanimous that their living conditions have improved in the following ways:</p> <ul style="list-style-type: none"> <li>- less poverty;</li> <li>- better health;</li> <li>- less food insecurity;</li> <li>- greater gender-related independence;</li> <li>- Revegetalisation of the environment;</li> <li>- Less drought and formation of gulleys;</li> <li>- Improved agricultural output.</li> </ul>
<b>SMALLHOLDERS</b>	

## **DETAIL OF INTERVIEWS BY MUNICIPALITY**

### **MUNICIPALITY OF TANOUT:**

**TANOUT site:** The reclamation of agricultural land for tree planting has totally changed the environment. The sewing business, which began in January 2014, is growing fast. Six women have learned elementary sewing skills and two other young people are now training. The results are absolutely convincing. The women have been able to package and sell the clothes (which are in demand from private individuals). However, it must be noted that there are not enough machines, and the number of women with access to training is limited.

#### **REQUEST:**

- **more sewing machines;**
- **greater capacity to train beneficiaries in sewing.**

**TAMALOLO site:** The sewing business has come to a halt, because the Tanout centre is too far for the women to attend (they therefore regret that the training process has stopped). Only two people (one man and one woman) are still attending the centre for training. The women would not mind if the trainer from Tanout were to go to their municipality to train the village women (so that they could be trained in the village). An alternative option would be to set up a second training centre.

The countrymen say they are extremely satisfied at the contribution of improved seed and soil regeneration activities: semi-circular basins and bench terraces have been created. Phyto-sanitary products, rain gauges, agricultural material shops and farming implements in particular have been provided. The land reclamation has proved very worthwhile, since the countrymen have been able to plant trees and watch them grow.

#### **REQUEST:**

- **greater capacity at the sewing centre for village women, and even in the village, by the Tanout trainer**
- **sink a second well, because the water shortage is being cruelly felt.**

**FAL-ABDOU:** the market gardening is up and running and enables the village community to eat garden vegetables. However, the water problems are very serious, since the three wells have run dry. Another point is that, during gardening harvesting, local people had the disagreeable surprise of finding that wild animals had invaded the garden area due to the lack of fencing. Another major problem raised was that of water and the lack of wells. The technicians say they have proposed to dig one hectare of pool on a cash for work basis, and

then to dig an irrigation ditch.

**REQUEST:**

- **set up a chain link fence round the market garden**
- **dig one hectare of pool and one irrigation ditch.**

**GARIN BOKA:** The PANA Project has had highly positive effects on villagers' living conditions. It has very greatly eased their workload. Women of the grouping, as members of the management committee, manage the grain mill and pay the miller. They have set up a support fund which surmounts difficulties if needed. They say they would like a machine for separating the bran (this is expensive). They say they will accept all training courses which enable them to improve their business.

**REQUESTS:**

- **a machine for separating the bran;**
- **greater capacity.**

**GUINEA ALHAZEI:** To date the PANA Project has enabled 35 women from a 79-member grouping to undergo training in sheep fattening for business. After only 8 months from the business launch, the women have been very active and dedicated, and have reaped the first profits. These profits are quite significant. They have enabled some to open small businesses. The revenue from the activity has also led to improved general living conditions and enabled them to afford children's education, and to pay for primary healthcare. The women would like more women to be able to benefit from their activity. They would also like reinforcement of capacity. Another request made by the women is for a cereal bank.

**REQUESTS:**

- **Greater capacity for the sheep fattening business;**
- **Set up a cereal bank.**

**MUNICIPALITY OF DAKORO**

**SAKABAL:** The PANA Project has changed the lives of 20 women, improving their living conditions and those of their families (they can

pay the necessary amounts for their children to go to school, meet sundry needs etc). The women in the group learned to sew in just one month. In the past, they had done odd jobs deriving from agriculture, but did not earn enough from these. The business is of genuine social importance, in the sense that it involves the whole household. The women have set up a collective fund which is also an aid fund in case any of them experience hardship. For the time being, they are selling their products locally. Later they will place the sales with an elderly and vulnerable woman for market distribution. One of the women admitted that the business is a 'light' in her life, and the whole workshop echoed her opinion. The sewing business is a first step towards increased independence, as they would like to go into business one day on their own account. The men are full stakeholders in this activity.

Two drawbacks: only women picked for this activity are eligible for training. Besides, the PANA Project handled servicing of the machines. What will happen to this servicing now?

**REQUESTS:**

- **Reinforce capacity to cater for more women;**
- **Look after machine servicing and repairs.**

**GARIN GADO Maidouma site:** The PANA Project has proved highly beneficial to smallholders, both for the improved seed, and the agricultural input materials shop and mill. As for the seeds themselves, the professional growers have fully learned the field techniques for growing the improved seeds. The trainers who have undergone the necessary training have volunteered their services to train others. The improved seed is sold on to partners at very attractive prices/rates. Countrymen have received appropriate plant health training but their equipment has proved too limited in number. Likewise they lack machinery (sowing drills, hoes etc).

The women manage the mill in a group. They pay the miller an income and pay subscriptions to a communal fund. However, they have had to handle the maintenance of the machinery and have spent all the money they saved on necessary repairs. The women have been requested to record the mill's management more closely, by keeping a regular account ledger.

**REQUESTS:**

- **sufficient quantities of phytosanitary equipment;**
- **farming implements (a seed drill, hoe etc).**

**GOMOZO site:** Sheep fattening by a group of women villages has yielded spectacular results. First, it must be stressed that these women

are wholly enthusiastic about the PANA Project. The resultant profits will enable them, if they wish, to buy ewes and thus extend the business, while continuing the fattening activity. Funds have been paid into the bank, and the women have even subscribed to a friendly society so that they have access to micro-credit. The men are totally supportive of this activity and help their women as well as possible. The activity is so well managed in this village that it constitutes a model of village economic self-management.

The women would like some reinforcement of their capacity, especially for fodder conservation and manufacture of salt licks for the livestock.

**REQUEST:**

**- reinforcement of capacity in matters of fodder preservation and manufacture of salt licks, etc.**

**MUNICIPALITY OF LOGA**

**BADOKO site:** The land reclamation work has yielded spectacular results. It has significantly stemmed rainwater run-off and has increased the surface area of the land. On this site, 90% of the women worked to build bench terraces. A new plant has appeared (bushes with medicinal properties) and small rodent wildlife.

Suitable training courses have been given in the fields of stock raising, plant production and planting techniques, use of products and phytosanitary techniques, in training in working in partnership.

As far as improved seeds are concerned (millet, sorghum and cowpea), the countrymen confirm that they have thoroughly absorbed the techniques, as well as those of planting.

Some men took the opportunity to go on two trips outside the area: one to Mali and the other to Maradi, to observe the new techniques in the field. They included 10 professional seed growers.

Local people would like the koris to be restored. As the PANA Project has come to an end, the municipal council will set up a micro-project (possible ACDI finance).

The women would like a groundnut husking machine (for processing groundnuts into various local products).

**REQUEST:**

	<p><b>- for a groundnut husking machine</b></p> <p><b>DAMBAZI site:</b> the women are very keen on the market gardening activity (they have recently started drying cabbages on wattle screens for periods of food insecurity). They have been given training in production techniques and laying out plots. However, they say they suffer from a water supply shortage and are unable to ensure the best irrigation. They would like the PANA Project to sink a well in the village. Their living conditions have improved, even though their market gardening is only in its first season. They report that they are able to buy oil and cassava flour. Now they are able to look after their children's health issues and education. These women feel independent, and their husbands very largely help to sustain them in their efforts.</p> <p><b>REQUESTS:</b></p> <ul style="list-style-type: none"> <li>- <b>To fence off the market gardening area and dig wells;</b></li> <li>- <b>To strengthen capacity in the field of preserving methods.</b></li> </ul> <p><b>Loga site</b></p> <p>The sewing centre business is really taking off. The site is undergoing its third training course. 18 women have been trained for a year on each course. They are awarded a diploma for their apprenticeship (municipal council/CNEDD). The women are very enthusiastic.</p>
<b>GENDER</b>	<b><u>MUNICIPALITY OF NIAMEY</u></b>
<b>YOUNG PEOPLE</b>	<p>Throughout the municipality, information was a primary driver of the PANA Project. All the media reported the achievements in the pilot municipalities.</p> <p><b>TONDIBIAH site:</b> on the organisational front, and due to training in social partnership, landowners agreed to lend their land for sowing. Enthusiasm spurred this Project on.</p> <p>The 20 members of the women's grouping launched their sewing business in Tondibiah in January 2014. Already, they are selling some of their products on market days. They have formed a cash fund to finance repairs to their machines. The training centre (made available by a private individual) is going to be demolished to make way for a metalled main road. The municipality should be able to build replacement premises. The women would like capacity reinforcements in specific areas.</p> <p><b>REQUESTS:</b></p> <p><b>- reinforcement of capacity for embroidery and machine-knitting;</b></p>

	<p><b>- reinforcement of cooking capacity.</b></p> <p>Both men and women, in separate groupings, have a hand in market gardening at this site. The beneficiaries have undergone training in market gardening techniques and received gardening implements. They eat some of their garden produce themselves and sell on the rest.</p> <p>The Project has opened a shop for input materials. The men say that the PANA Project has boosted solidarity within the municipality. The countrymen who use the improved seed give seed free to those who are not yet aware of it.</p> <p><b>SODOURE site:</b> people in this country district report very great satisfaction at the production of improved seed. They are even looking around to train other countrymen in the methods which they have been taught, as they would like as many as possible to benefit from the same experience. They say they have produced a lot and reaped the profits. The men and women, each in their own grouping, have undergone training in market gardening methods. Both groupings shared the work of erecting a fence. The PANA Project has built an input materials shop (millet, sorghum and cowpea), managed as a co-operative society, currently with 30 members. A retention basin was also built. The beneficiaries have been equipped with a motor-driven pump and farming implements.</p>
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**What will be left of all this, after the Project?**

<b>LIVESTOCK FARMERS</b>	The beneficiaries are unanimous that all the activities will prove permanent, as they all meet expectations in the field: for land recovery; banks of input materials; training courses; public works (bench terraces and semi-circular basins), RGAs, the grain mill etc. PANA will have given the pilot villages a new lease of life.
<b>SMALLHOLDERS</b>	In sectors such as sheep fattening, women have opened bank accounts and subscribed to friendly societies to obtain micro-loans. The lasting benefit to these women will be a much more reassured view of life.
<b>GENDER</b>	
<b>YOUNG PEOPLE</b>	
	In other sectors, such as sewing, women want to own their own businesses. The Project will have helped to give them a dynamic vision of their own economic role.
	There was a boost to social and economic life in all pilot villages. Local people were persuaded that all the efforts made in various sectors of activity are going to last. There is no doubt that the Project has left strong enthusiasm to improve the living conditions of the men and women who agreed to try out the experiment. They have a taste for success, and a desire for enterprise.

**What could the Project have done for you (but did not)?**

Which areas still need support, especially at the level of the local population?

<b>LIVESTOCK FARMERS</b>	<p>The beneficiaries had a lot to say on this question. Although the PANA Project is now concluded, they would like it to be taken over, so that the necessary support can be given and they do not lose heart in time. Their request has a bearing on several aspects:</p> <ul style="list-style-type: none"> <li>- Capacity reinforcement: whenever possible, in relation to: improved seed; land reclamation; management in partnership; the business of sewing and embroidery; sheet fattening; account management etc.;</li> <li>- purchase of grain mills to lighten women's work; purchase of mills which separate the bran; groundnut husking machines;</li> <li>- well digging;</li> <li>- provision of farming implements;</li> <li>- creation of community radio stations;</li> <li>- increased availability of micro-loans for women.</li> </ul>
<b>SMALL-HOLDERS</b>	
<b>GENDER</b>	
<b>YOUNG PEOPLE</b>	

How has your food security changed:

- a) since the start of the Project?
- b) since the mid-term evaluation?
- c) in 2014?

<b>LIVESTOCK FARMERS</b>	<p>All targets refer to a significant change in matters of food security since the start of the Project, but also since the mid-term evaluation. In terms of nutrition, basic needs are met much better, especially for infants under the age of five and pregnant women.</p>
<b>SMALLHOLDERS</b>	
<b>GENDER</b>	
<b>YOUNG PEOPLE</b>	

How has your income changed:

- a) since the start of the Project?
- b) since the mid-term evaluation?
- c) in 2014?

<b>LIVESTOCK FARMERS</b>	<p>The beneficiaries are unanimous in saying that some activities have had visible effects since the mid-term evaluation, including: land reclamation; improved seed; market gardening; livestock fattening; and sewing. Sheep fattening, under women's management, has yielded</p>
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<b>SMALLHOLDERS</b>	spectacular results in some municipalities.
<b>GENDER</b>	Initiatives have been launched to give some women's groupings access to bank loans and roll out other activities. Some people would like to commit to forming their own micro-enterprises.
<b>YOUNG PEOPLE</b>	
<p>In your opinion, how has the Project changed your natural environment...</p> <p>a) since the start of the Project?  b) since the mid-term evaluation?  c) in 2014?</p>	
<b>LIVESTOCK FARMERS</b>	All beneficiaries state that, since the land was reclaimed, at the sites where this work was carried out, the natural environment has considerably improved. New flora and fauna have emerged.
<b>SMALLHOLDERS</b>	On another front, sheep fattening (RGA) has added nutrients to the soil in the form of organic manure.
<b>GENDER</b>	
<b>YOUNG PEOPLE</b>	
<p>How has this Project changed access to drinking water for local people and animals...</p> <p>a) since the start of the Project?  b) since the mid-term evaluation?  c) in 2014?</p>	
<b>LIVESTOCK FARMERS</b>	All beneficiaries tell us that they remain concerned about water. The extra water obtained by digging wells, improving irrigation and construction works has been wholly beneficial in improving their access to drinking water since the Project launch. However, it is a persistent worry. Local people attach very great importance to the provision of wells and irrigation ditches. Although the Project did everything possible to respond to these needs, all the evidence is that there is still a shortage of wells for the business activities, especially market gardening. Links must be forged at higher level, or solutions must be found to meet these urgent expectations (grouping municipalities together might be one answer to the question of resourcing).
<b>SMALLHOLDERS</b>	
<b>GENDER</b>	
<b>YOUNG PEOPLE</b>	

How has the building of anti-erosion works changed your agricultural production...

- a) since the start of the Project?
- b) since the mid-term evaluation?
- c) in 2014?

<b>LIVESTOCK FARMERS</b>	All beneficiaries record their immense satisfaction at the building of anti-erosion works, which have led to a significant increase in agricultural production: of course since the start of the Project, but also since the mid-term evaluation.
<b>SMALLHOLDERS</b>	
<b>GENDER</b>	
<b>YOUNG PEOPLE</b>	

How have the bench terraces and semi-circular basins set up altered the fodder supply...

- a) since the start of the Project?
- b) since the mid-term evaluation?
- c) in 2014?

<b>LIVESTOCK FARMERS</b>	All beneficiaries concerned have noted that the building of bench terraces and semi-circular basins led to significant increases in fodder production.
<b>SMALLHOLDERS</b>	

**ANNEXE 2:** Survey sheet: summary questionnaire (not exhaustive) for target populations

- Tell us about the PANA Project.
- What activities were you able to carry out in the context of this Project?
- What did you gain, in terms of securing means of subsistence?
- Has your food security improved since the Project began?
- Have you noticed a real reduction in poverty? And what form has it taken?
- Do you have access to primary healthcare?
- Can you afford the fees to send your children to school?
- Has the Project changed your access to the water supply?
- What water-related infrastructure has been built? Is the available quantity sufficient?
- How has the Project changed your natural environment?
- How has your income changed?
- What equipment have you received?
- What training have you received?
- What infrastructure has the Project provided?
- What land reclamation has the Project carried out?
- How did the land reclamation activity help you?
- Has agricultural and fodder output increased, and by how much?
- Has the land reclamation led to revegetalisation?
- Has this work led to better control of rainwater run-off?
- In your opinion, has the natural environment improved?
- Have you noticed the appearance of new flora and fauna since the erosion prevention works were constructed?
- What role have women played in the land reclamation work?
- How has the market gardening activity helped you?
- Are you able to irrigate as well as possible? If not, how do you proceed?
- Have you received farming implements?
- Is the market gardening produce eaten or sold on?
- How and where is the produce for onward sale sent?
- What role have women played in the market gardening activity?
- How is the market gardening managed?
- Have you been able to set up a fund (working capital)?
- What provisions are paid into this fund (contributions, gifts, other)?
- How has the sewing activity helped you?
- How do you find outlets for your products and where?
- Did you receive a diploma on completion of your sewing training?
- What type of organisation manages the sewing activity?
- Are men stakeholders in this activity?
- Has this activity paved the way to making you more independent?
- Have you been able to set up a fund (working capital)?
- What provisions are paid into this fund (contributions, gifts, other)?
- How has the sheep fattening activity helped you?
- How is animal health monitored?
- Do you find it easy to sell the sheep?
- How is the sheep fattening activity managed?
- Have you been able to set up a fund (working capital)?
- What provisions are paid into this fund (contributions, gifts, other)?

- Would you like to go into business on your own account later on?
- Have you thought of micro-loans to start up other potential projects?
- Have you been given enough information about micro-finance?
- Do the men help you with this activity?
- How has improved seed benefited you?
- Are you at home with the techniques?
- What share did women take in the improved seed activity?
- How are outlets found for the produce?
- How is the seed distributed?
- How is this activity managed?
- Have you been able to set up a fund (working capital)?
- What provisions are paid into this fund (contributions, gifts, other)?
- Has this activity generated solidarity with other smallholders nearby, who are not benefiting from the Project activity?
- How have the installation of a rain gauge and suitable training changed how you sow seed?
- How has the input materials shop helped your village?
- What type of organisation runs the input materials shop?
- Have you been able to set up a fund (working capital)?
- What provisions are paid into this fund (contributions, gifts, other)?
- Are the seed and input materials old and distributed? Explain your answer.
- How has the grain mill helped your village?
- What seed is milled?
- What role have women played in the grain milling activity?
- Who pays the miller?
- Have you been able to set up a fund (working capital)?
- What provisions are paid into this fund (contributions, gifts, other)?
- Is there a community radio station in your municipality? Is it important to you? Why?
- Are men stakeholders in this activity?
- What else would you like in terms of material support?
- What else would you like in terms of infrastructure?
- What else would you like in terms of capacity strengthening?
- Would you like the Project to continue for a while? Why?
- In your opinion, what will still need doing after the Project?
- What lessons are there to learn from it?

**ANNEXE 3: Technical Datasheets (see table of recommendations)**

**TECHNICAL DATASHEET 1: THE “SEED FOR REPAIR OF RURAL TRACKS” PROGRAMME**

Project “*Seed for Repair of Rural Tracks.*” Specifically, small growers will receive the set of seed (under contract to an NGO or FAO, for example) and the tooling they need for their production. In return, they undertake to repair local tracks. Beneficiaries would remake tracks under structured general co-ordination (*see next paragraph*), under the auspices of the relevant ministries (Agriculture and Equipment).

*Methods of implementation:* a co-ordinating body would be set up on track repair. Rural tracks would be repaired under a general co-ordinating body with a system of monitoring and evaluation. This would be answerable to the two ministries concerned. The heads of countrymen’s groupings would choose a general co-ordination manager whose task it would be to manage all operations relating to track repairs: works management, team rotas, division of effort, monitoring etc).

## **TECHNICAL DATASHEET 2: COMMUNITY SUPPORT AND MONITORING PROGRAMME ON NUTRITION VIA NOMINATION OF “GODMOTHERS”**

Who are these ‘godmothers’? They are the first point of contact in the field with vulnerable populations, especially infants, pregnant women and nursing mothers. Women trust these ‘godmothers.’ The godmothers play a lead role, especially in family planning (contraception, raising awareness of STDs, risk behaviour etc). They help the healthcare specialists with basic routines and primary healthcare. It must also be recognised that these women can play a highly significant role in removing obstacles and breaking down barriers to communication between women and modern health centres. The ‘godmothers’ must have the opportunity to receive appropriate training for the work they do in the field. They must receive appropriate remuneration for their job, so that the monitoring body can fulfil its duties properly. They must be trained in taking physical measurements and weighing and detecting undernourished children or clinical cases (when there are few healthcare specialists or none). They must be trained in good practice exclusively in relation to breast-feeding (so that they can give the right information in the field). In matters of basic healthcare, they must ensure that mothers treat infant diarrhoea properly and make correct use of impregnated mosquito nets. They must inform the health centres of critical cases, to facilitate prompt referrals, etc. They must be thoroughly trained in keeping nutrition and health monitoring registers. It is essential that this information feeds through to the national monitoring body. They must lead quarterly co-ordination meetings between ‘godmothers’ and health centres. The main aim of this co-operation is to ‘scan’ the field so that no-one is omitted. They must be trained in psychological aspects using the IEC/CCC approach (Information, Education, Communication/Communication for Changing Behaviour). This involves listening, behavioural changes, etc.

## TECHNICAL DATASHEET 3: NUTRITION MONITORING SYSTEM

System description: a database harmonised with underlying research to draw on all information about nutrition. Nutrition monitoring is a fundamental aspect of protecting mothers and children facing the consequences of food insecurity (due especially to climate change). At practical level, this means effective and sustainable improvement of the nutrition monitoring system at all levels. In this regard, it is worth reviewing the role of the nutrition monitoring body:

- Identification and monitoring of the relevant indicators of availability, access to and use of foods by population groups vulnerable to food insecurity;
- Identification and monitoring of the relevant indicators of the state of health of the populations, in relation to pregnant women, nursing mothers, and infants under the age of five, in particular;
- Identification and monitoring of potential threats to household food security;
- Regular updating to allow action (undertaken by the national system) such as appropriate food aid.

Description of nutrition monitoring body: this is a multi-tiered body:

### PERIPHERAL ALERT SYSTEM:

- At municipal level: community contacts (“godmothers”) patrol the field and enter the data manually; this is passed on to the health centres;
- At regional level: the health centres receive the information relayed from the field (by the “godmothers”) and register the information about visits to their own health centres. All this information (relayed info. from community contacts + health centre information is forwarded manually to the prefectures and districts (intermediate alert system).

### INTERMEDIATE ALERT SYSTEM:

At prefecture and municipal levels: data is processed and analysed; then passed to the national alert system.

NATIONAL ALERT SYSTEM: data is processed for implementation of possible counter-measures.

The health and nutrition alert system must receive better information, especially by including two types of data: nutrition information; and the agricultural component (availability of products/access to them/use of them)/*detail below*. Furthermore, the IT component must be really efficient.

In practice, this system should perform very well (receive good information) to be genuinely operational and fulfil its health and nutrition monitoring role. It is also necessary to think about training staff in data management in all administrative tiers (for rapid response if necessary).

Finally it is essential that the system as a whole should be accepted by all strata of the population (civil society, local committees, NGOs, field relays, populations etc).

- PROPOSAL FOR AN INITIATIVE ON COMPUTERISED METHODS OF DATA MANAGEMENT (at municipal and regional levels)

All information gathered at municipal and regional levels must be entered on a management datasheet (e.g. the form used for food security). A similar datasheet will be generated for nutrition data.

Specimen Data Collection Sheet on Food Security					
Date of record: _____					
Crop name: _____ Crop code: _____					
Year	Prefecture code	Surface area (ha)	Yield (kg/ha)	Gross output (t)	Source
Crop type:					
0: Other		1: Cowpea		2: Sorghum	
3: Maize		4: Wheat		5: Wheat	
6: ...		7: Groundnut		8: Bambara groundnut	
9: Cowpea		10: ...		11: Sesame	
12: Millet		13: Yam			

### *Set-up*

Example of a possible proposal: a list (very approximate) of monitoring files on the national situation:

#### - General information

*List of prefectures and municipalities*

*Road infrastructure*

*Condition of roads*

*GDP*

*Economic indicators*

*Rainfall recording*

*etc.*

#### - Population

*Resident population*

*Population by activity*

*Population by sex*

*Population by age band*

#### Plant production

*Action against mites: treatment of infested areas*

*Crop development stage*

*Price paid to cereal grower*

*Agricultural production*

*Tuber production*

- Marketing

*Stocks of food crops*

*Prices of food products*

*Price of meat and milk*

- Environment

*Sources of water supply*

- Zones and groups at risk

*Food consumption*

*Picked foods*

*Number of meals per day*

*Urban and rural poverty*

- Nutrition and primary health

*Malnutrition*

*Nutritional state (deficit)*

*Illness statistics (infants aged 0 - 5)*

*Health monitoring*

- Employment

*Average income per job*

*List of activities*

*etc.*

## TECHNICAL DATASHEET 4: SOLAR PANELS



### How a solar panel works

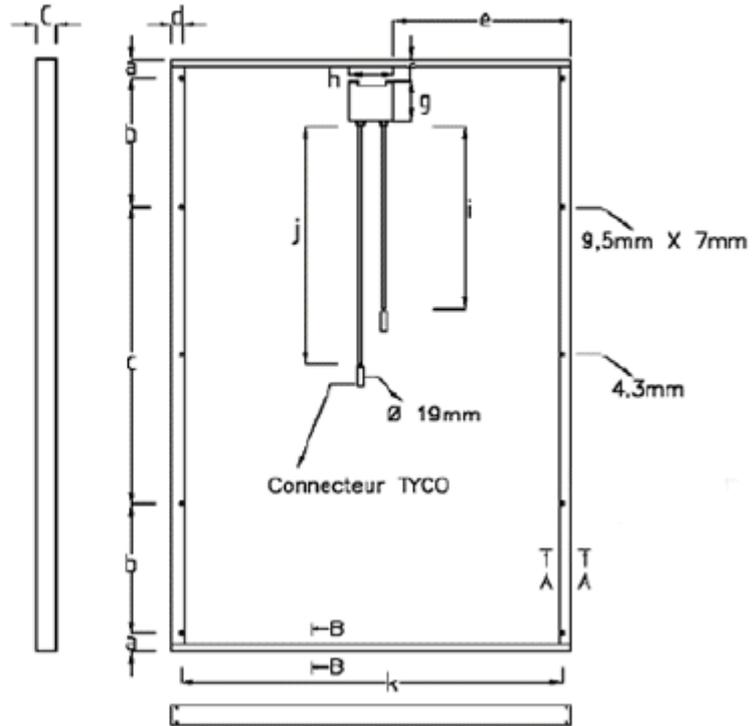
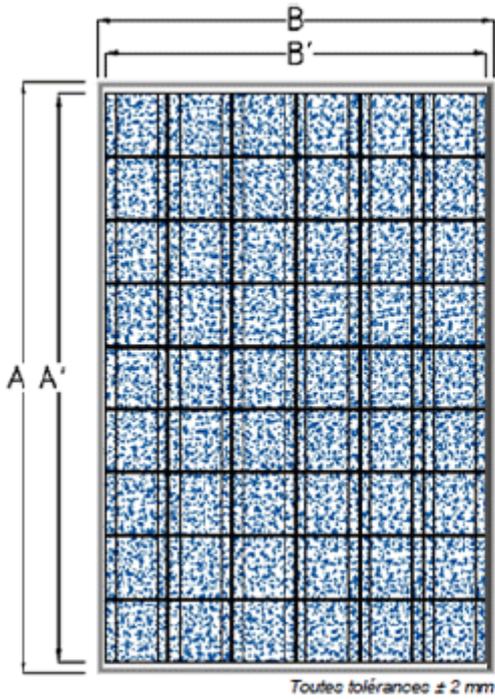
The **modules** use the technology of **high-performance multi-crystal cells** (polycrystalline). These are individually measured and 100% sorted before encapsulation.

The **tempered glass / EVA / Tedlar** structure minimises weight. It seals the cells perfectly and ensures long-term protection. The reinforced **aluminium frame** is 50 mm thick and very strong. This allows ease of handling and quick and easy assembly. Each module undergoes individual **quality control** and receives a numbered performance test sheet.

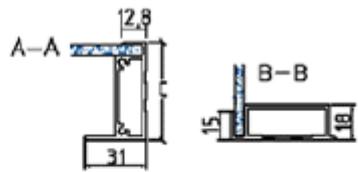
### Electrical characteristics:

Typical power	200 W	210 W	220 W	230 W	240 W
Minimum power	195	205	215	225	235
Maximum power	205	215	225	235	245
Wc limit	-5 / +5 Wc				
Power class limit %	± 2.50%	± 2.38%	± 2.27%	± 2.17%	± 2.08%
Maximum power point voltage V <sub>pm</sub> (V)	29.3	29.	29.	29.9	30.1
Maximum power current I <sub>pm</sub> (A)	6.9	7.2	7.5	7.8	8
Open-circuit voltage V <sub>oc</sub> (V)	35.9	36.2	36.5	36.8	37
Short-circuit current I <sub>sc</sub> (A)	7.6	7.8	8	8.2	8.3
<b>Influence of temperature</b>					
Temperature coefficient for voltage	- 129.0 mV/°C				
Temperature coefficient for current	+ 4.4 mA/°C				
Temperature coefficient for power	- 0.46 %/°C				
NOCT (°C)	45				
<b>Cells</b>					
Size	156 x 156 mm				
Layout	60 cells / 6 x 10				
Type	Multi-crystalline				
<b>General information</b>					
Maximum system voltage (V)	1000 V				

Diodes	3 by-pass
Connector type	Tyco
Weight (kg)a	19



	TE2000	TE2200
<b>A</b>	<b>1510</b>	<b>1660</b>
<b>A'</b>	1480	1630
<b>B</b>	<b>995</b>	<b>990</b>
<b>B'</b>	969	964
<b>C</b>	<b>50</b>	<b>50</b>
<b>a</b>	48	123
<b>b</b>	327,5	327,5
<b>c</b>	759	759
<b>d</b>	23,5	19
<b>e</b>	444	440
<b>f</b>	50	50
<b>g</b>	99	100
<b>h</b>	107	110
<b>i</b>	840	840
<b>j</b>	1030	1030
<b>k</b>	948	952



## ANNEXE 4: Project summary

Project title:		PANA RESILIENCE		
GEF project ID:	3826		<u>On approval (USD million)</u>	<u>On completion (USD million)</u>
UNDP project ID:	00058080/00 072003	GEF funding:	3.5	
Country:	Niger	Finance from executing agency/ implementing agency:	0.2	0
Region:	8 municipalities	Government:	0.2	0
Focus:	Climate change	Other:		
FA objectives (OP/SP):		Total co-funding:	10.95	1.99
Executing body:	CNEDD Executive Secretariat	Total Project cost:	14.85	
Project partners:	Ministries of Agriculture, the Environment, Livestock and Hydraulics; High Commission on the 3N Initiative; The eight municipalities: Chétimari, Aderbissinat, Tanout, Roubou, Kao, Loga, Tondikiwindi and Niamey City Arrondissement 1	Sign-off (Project start date):		July 2009
		Closing date (operational):	Proposed: June 2013	Actual: 31 March 2014

**ANNEXE 5: Partners' contributions to Project implementation: comments during final stage**

<b>PARTNERS</b>	<b>DID THE PARTNER CONTRIBUTE TO THE PROJECT IMPLEMENTATION? YES, NO, SOMEWHAT</b>	<b>SCORE</b>	<b>COMMENTS</b>
<b>UNDP</b>	<b>YES</b>	<b>5</b>	<b>Funding was paid out late (due to cumbersome procedures). However, it is important to stress that, despite the recorded delays, PANA has had the highest payout rate of any UNDP project</b>
<b>GEF</b>	<b>YES</b>	<b>6</b>	
<b>STEERING COMMITTEE</b>	<b>YES</b>	<b>6</b>	
<b>PROJECT TEAM</b>	<b>YES</b>	<b>6</b>	
<b>MANAGEMENT COMMITTEE</b>			
<b>MINISTRY OF AGRICULTURE</b>	<b>YES</b>	<b>6</b>	
<b>MINISTRY OF LIVESTOCK</b>	<b>YES</b>	<b>6</b>	
<b>MINISTRY OF TRANSPORT (WEATHER FORECASTING)</b>	<b>YES</b>	<b>6</b>	
<b>MINISTRY OF HYDRAULICS</b>	<b>YES</b>	<b>6</b>	
<b>MAYORS</b>	<b>YES</b>	<b>6</b>	
<b>DEVOLVED DEPARTMENTS of the ministries concerned</b>	<b>YES</b>	<b>6</b>	
<b>LOCAL GOVERNMENT</b>	<b>YES</b>	<b>6</b>	

*Scoring of results: effectiveness, efficiency, follow-up, evaluation and surveys*

- 6 Highly satisfactory (HS): no gaps
- 5 Satisfactory (S): minor gaps
- 4 Moderately satisfactory (MS)
- 3 Moderately unsatisfactory (MU): important gaps
- 2 Unsatisfactory (U): bigger problems
- 1 Very unsatisfactory (HU): serious problems

**ANNEXE 6:** Overall project performance scores in the terms of the GEF/UNDP Directives

CRITERIA	SCORE (red)	COMMENTS
<b>Monitoring and evaluation:</b> Very satisfactory (TS), Satisfactory (S), Moderately satisfactory (MS), Moderately unsatisfactory (MI), Unsatisfactory (I), Very unsatisfactory (TI)		
Set-up of monitoring and evaluation at start of Project	(on a scale of 1 - 6) 6	
Implementation of monitoring and evaluation plan	(on a scale of 1 - 6) 6	
<b>Execution by executing body and implementing body:</b> Very satisfactory (TS), Satisfactory (S), Moderately satisfactory (MS), Moderately unsatisfactory (MI), Unsatisfactory (I), Very unsatisfactory (TI)		
Overall quality of project execution/implementation	(on a scale of 1 - 6) 6	
Execution by implementing agency	(on a scale of 1 - 6) 6	
Execution by implementing agent	(on a scale of 1 - 6) 6	
<b>Results</b> Very satisfactory (TS), Satisfactory (S), Moderately satisfactory (MS), On average unsatisfactory (MI), Unsatisfactory (I), Very unsatisfactory (TI)		
Overall quality of Project results	(on a scale of 1 - 6) 6	
Relevance: relevant (P) or irrelevant (PP)	(on a scale of 1 - 2) 6	
Effectiveness	(on a scale of 1 - 6)	

	6	
Efficiency	(on a scale of 1 - 6) 6	
<b>Sustainability:</b> Probable (P); Average probability (MP); Average improbability (MI); Improbable (I)		
Overall probability of risks which may jeopardise sustainability	(on a scale of 1 - 4) 4	
Financial resources	(on a scale of 1 - 4) 3	The resources could have been larger, to fund more than 8 out of 266 municipalities.
Socio-economic sustainability	(on a scale of 1 - 4) 4	
Institutional framework and governance	(on a scale of 1 - 4) 4	
Environmental	(on a scale of 1 - 4) 4	
<b>Impact:</b> Important (I), Minimum (M), Negligible (N)		
Improvement in condition of environment	(on a scale of 1 - 3) 3	
Easing of pressure on environment	(on a scale of 1 - 3) 3	
Progress towards change of pressure/condition	(on a scale of 1 - 3) 3	
<b>Overall Project results</b>	(on a scale of 1 - 6) 6	

(for scale of scores, see below)

<p><b>Scores for results: effectiveness, efficiency, monitoring, evaluation and</b></p> <p>6 Very satisfactory (HS): no gaps          5 Satisfactory (S): minor gaps          4 Moderately satisfactory (MS)          3 Moderately unsatisfactory (MU): serious gaps          2 Unsatisfactory (U): greater problems          1 Very unsatisfactory (HU): serious problems</p>	<p><b>Sustainability scores:</b></p> <p>4 Low probability (L): negligible risks to sustainability          3 Average probability (MP): moderate risks          2 Improbable on average (MU): greater risks          1 Improbable (U): serious risks</p>	<p><b>Relevance scores</b></p> <p>2 Relevant (P)          1 Irrelevant (PP)</p> <p><b>Impact scores:</b></p> <p>3 Satisfactory (S)          2 Minimal (M)          1 Negligible (N)</p>
<p><b>Other gradings if applicable:</b>          Not applicable (N.A.)          Impossible to evaluate (E.I.)</p>		

## **ANNEXE 7: Terms of Reference of the Final Evaluation**

The PANA Resilience Project has been running since 2009, after the National Action Programme on Adaptation was drawn up in 2006. The Project aims to strengthen capacity for adapting to climate change in the agricultural and water sectors.

The Project consists of implementing adaptation measures to increase agricultural productivity, food security and the water supply. The Project will essentially involve the principal adaptation measures identified during the process of drawing up PANA as priorities for those involved at département, municipal and village levels. The work will take place at national and local levels and will involve revision of the national and local development plans.

### **The expected results are as follows:**

- increased resilience, in the face of climate change, of food production systems and/or of the communities who live in food insecurity;
- strengthened institutional capacity of the agricultural and water sectors, especially information and publicity services, to cope with weather fluctuation and climate change; and
- lessons to be learned, written up and distributed. The knowledge management component must be set up. In accordance with UNDP and GEF monitoring and evaluation policies and procedures, all medium or large-scale projects backed by UNDP and funded by BEF must undergo a final evaluation at the end of the project work.

These terms of reference state the expectations of the final evaluation of the project “Implementation of the Priority Action of PANA to strengthen capacity for resistance and adaptation of the agricultural and water sectors to climate change in Niger” (PIMS 3826).

### **Service objectives**

The final evaluation will be conducted in accordance with the directives, rules and procedures established by UNDP and GEF, as stated in the UNDP evaluation directives for GEF-funded projects. The evaluation objectives are: to appraise the achievement of the Project objectives; and to derive lessons which may improve the sustainability of the Project’s advantages and encourage overall improvement of the UNDP programmes.

### ***Duties and Responsibilities***

### **Evaluation approach and method**

An overall approach and method for carrying out final evaluations of projects supported by UNDP and funded by the GEF have evolved with the passage of time.

The assessor must base the evaluation work on the criteria of relevance, effectiveness,

efficiency, sustainability and impact, as defined and explained in the UNDP directives on conducting final evaluations of UNDP-supported and GEF-funded projects. A set of questions has been drawn up to cover each of these criteria.

The assessor must amend, complete and submit this table as part of an initial evaluation report, and attach it as an annexe to the final report.

The evaluation must supply factual, credible, reliable and useful information.

The assessor must follow an approach based on participation and consultation. This must ensure close co-operation with counterparts in government, especially with the GEF operations hub, the UNDP country office, the team in charge of the project, the UNDP-GEF technical consultant based in the region, and the main stakeholders.

The assessor must carry out a field assignment covering the project sites (in this case the Municipalities of Niamey 1, Loga, Roubou, Tanout, Aderbissinat, Kao, Tondikiwindi and Issari). Interviews will be held at least with the following organisations and individuals:

- The underlying local communities (smallholders, stock breeders, women and young people) and their organisational structures (local co-management bodies, cereal and livestock feed bank management committees, and other groupings);
- the community radio stations;
- trainers who have themselves received training in integrating climate change into local government (municipal councils in the supported areas, and specifically at the sites involved) and the devolved technical services of the Ministries of Agriculture, Livestock Farming, Hydraulics and Rural Engineering and the National Meteorological Directorate;
- the resident UNDP representative and Rapid Rural Appraisal officer for the programme; the head of the Environment and Energy Programme at UNDP's Niger Office; the UNV member following the Project; and the UNDP/GEF regional technical advisor on adaptation, who is based in Addis;
- CNEDD Executive Secretariat; and
- the Project's financial partners in the areas concerned: Community Action Programme (PAC), Care International, and other technical and financial partners, to be decided.

The assessor will review all relevant information sources, such as the project description, the project reports especially the annual and other reports, the project budget reviews, the mid-term evaluation, the progress reports, financial reports, account ledgers, the monitoring tools from the GEF hub, project files, national strategy and legal documents and all other documents which he or she considers useful to this fact-based evaluation.

A list of the documents which the Project team will pass to the assessor for evaluation purposes is attached to these terms of reference as Annexe B.

## ANNEXE 8: List of partners met

### List of people met at UNDP

N°	Last name	First name
01	ADA	Laouly (PA to the UNDP resident representative)

### List of people met at the CNEDD Executive Secretariat

Last name	First name	Position	Contact
Idi	Issa	SE/CNEDD (acting)	96 59 03 67
Mrs Bako	Safi Solange	Director, PANA Project	90 47 57 60
Mrs Benjamin	Adama	Administrative assistant, PANA Project	92 05 01 72
Harouna	Hassane	Financial assistant, PANA Project	90 47 57 63
Issa	Abdoulaye	Monitoring and evaluation expert, PANA Project	90 47 57 74
Illa	Kané	Communications expert, PANA Project	96 13 95 28
Mrs Boubé	Ai	UNV gender expert, PANA Project	90 2271 97

### LIST OF MEMBERS OF THE NATIONAL STEERING COMMITTEE MET

Last name	First name	Position	Contact
Issaka	Ounteini	CNP Chairman SG/ HCl3N	
Mamadou	Daouda	Representing the National Meteorology Directorate	96 72 26 76
Bako	Yacouba	Representing the Hydraulics Ministry	96 87 74 54
Omar	Abdoula Aziz	Ministry of Agriculture representative	
Soukouraji	Barmou	INRAN representative	90 69 91 19
Mamoudou	Idrissa	SE/CNEDD	90 60 12 38

List of members of the National Steering Committee (CNP) met

N°	Last name/first name	Body	Contact	e-mail
1	Garba Hamissou	CN/GDT/MHE	96 53 66 65	<a href="mailto:garba_h283@yahoo.fr">garba_h283@yahoo.fr</a>
2	Zika Mounkaila	DDP/DGIA/ME	90 50 70 41	<a href="mailto:zikamounkaila@yahoo.fr">zikamounkaila@yahoo.fr</a>
3	Mrs Issa Hamsatou	SE/CNEDD	20 72 25 59	<a href="mailto:hamsatou19@gmail.com">hamsatou19@gmail.com</a>
4	Yaou Yahaya	CNES	96 96 52 49	<a href="mailto:yaou_yahaya@yahoo.fr">yaou_yahaya@yahoo.fr</a>
5	Mrs Boubacar Zalia	SE/CNEDD	94 95 75 83	<a href="mailto:zalia.boubacar@yahoo.fr">zalia.boubacar@yahoo.fr</a>
6	Barmo Soukaradji	INRAN	96 59 59 18	<a href="mailto:barmo_inran@yahoo.fr">barmo_inran@yahoo.fr</a>
7	Laouali Malam Karami	CNCOD	96 96 20 55	<a href="mailto:laouali36@gmail.com">laouali36@gmail.com</a>
8	Issa Maidagi	DERED/DGE/MEP	96 49 92 22	<a href="mailto:maidagissa@yahoo.fr">maidagissa@yahoo.fr</a>
9	Bassirou Dan Magaria	PMF/GEF	96 88 34 34	<a href="mailto:bassirou.dan.magaria@undp.org">bassirou.dan.magaria@undp.org</a>
10	Abdoul Aziz Oumar	DGA/MA	96 96 20 68	<a href="mailto:abdoulazizomar459@yahoo.fr">abdoulazizomar459@yahoo.fr</a>
12	Elhadji Maman Saadou	MHE	96 56 13 01	<a href="mailto:mamansaad@yahoo.fr">mamansaad@yahoo.fr</a>
13	Almou Hassane	Mayor Tondikiwindi	96 42 03 10	-
14	Ahmadou Atchi	Mayor /Kao	96 53 84 73	-
15	Yacouba Djakou	Mayor /Roumbou	96 26 15 14	-
16	Elh. OumarouAllo	Mayor /Loga	96 96 47 86	-
17	Alassane Abouhamid	Mayor/ Aderbissinat	94 25 08 90	-

**List of people met in Fal-Abdou (market gardening)**

1) Ousmane Abdou (village chieftain)
2) Souley Bakocki
3) Sani Hamani
4) Garba Abdou
5) Salmé Ado
6) Oumarou Habou
7) Inoussa Kadir
8) Maman Abdou
9) Aichatou Sanda
10) Maman Djibo
11) Adamou Mounkaila
12) Didjan Elh Mato
13) Kantasaidou
14) Abdou Sako

15) Elh Mahaman Ali
16) Fassouma Ousmane
17) Ado Ibrahim
18) Maman Abdoulaye
19) Sani Souley
20) GarbaAdamou
21) Elh Idi Kanna
22) Kourma Dogo
23) Elh Oumarou Kamai
24) Issa Souley
25) Nandoua Idi
26) Idi Abdou Karami

**List of people met in Guinia Alhazai ii (sheep fattening)**

1) Aboukar Abdou (village chieftain's representative)
2) Elh Hassan ElhMoumouni
3) Adamou Abdou
4) Yawalé Lisseini
5) Abaché Elh Moumouni
6) Elh Yacouba Awari
7) Moumouni Elh Maman
8) Haja Amina Elh Abari
9) Aïyou Elh Hassan
10) Zoullaha Aboubacar
11) Kayouma Souley
12) Nana Tengouri Boubbou
13) Aïchatou Elh Abari
14) Salmai Aboubacar
15) Hadja Halima Elh Soumaila
16) Lallama Elh Hassan
17) Raya Elh Aboubacar
18) Maïmou Abass
19) Hadjara Moumouni
20) Nana Hawa Malan Moussa
21) Nandou Maman
22) Hadja Nandou Elh Daouda
23) Adama Mado
24) Adama Elh Ibrahim
25) Gambo Adam
26) Amssatou Habibou
27) Hadjara Souley
28) Hadiza Elh Laminou
29) Rabi Zakari
30) Nana Iddiko
31) Rakia Maman Zangui
32) Mariama Harou
33) Salmai Sani
34) Delou Elh Yacouba
35) Kaïlla Elh Matan
36) Laouré Yaou
37) Nana Moumouni

38) Hadizouwa Abdou
39) Fatchima Daouda
40) Fatchima Ali
41) Laouré Adamou
42) Hadjara Maïrou Elh Soumaila

#### **LIST OF PEOPLE MET IN GARIN BOKA (GRAIN MILL)**

1) Zakari (village chieftain)
2) Fassouma Ouzérou
3) Haoua Kantama
4) Ado Mounkaila
5) NatoudouChaïma
6) AminaZakari

#### **LIST OF PEOPLE AT MUNICIPAL LEVEL TANOUT (DEPARTEMENT OF TANOUT)**

N°	Last name	First name
01	Issa	Kadri (UNV Tanout)
02	General Secretary	Prefecture
03	Oumara	DJIBRILLOU (Mayor)
04	Garba	HAJI (First Deputy Mayor)
05	Chaïbou	ISSAKA (Second Deputy Mayor)
06	Harouna	Wata (NGO/CCOAD co-ordination point)
07	Abdoulakarim	Head of vocational training centre
08	The vocational trainees at the sewing centre	Tanout

#### **LIST OF PEOPLE AT MUNICIPAL LEVEL IN ROUMBOU (DEPARTEMENT OF DAKORO)**

N°	Last name	First name
01	Djakou	Yacouba (Mayor)
02	Abdou Aboubacary	Garba (UNV assistant to PANA Project)
03	Abdoulaye	Alhousseini (Département Agricultural Directorate)

#### **LIST OF PEOPLE MET IN NIAMEY CITY ARONDISSEMENT 1**

##### **1. City Arrondissement Offices**

N°	Last name	First name
01	Boubacar	Hamadou (Mayor)
02	Mounkaila	Souley (General Secretary)
03	Bibata	Gabey (Head of Rural Engineering Department)
04	Soumaila	Hamadou (Head of Agriculture Department)
05	Ila	Kané (Municipal Communications Director - Niamey City Council)

## **2. Village of Tondibiah - domestic sewing unit**

<b>N°</b>	<b>Last name</b>	<b>First name</b>
01	Bissala	Aissa
02	Ibrahim	Salamatou
03	Bawa	Larey
04	Abdoulaye	Aichatou
05	Garba	Fourera
06	Abdou	Haoua
07	Seydou	Kadidja
08	Seydou	Mariama
09	Idé	Hadjara
10	Seydou	Halimatou
11	Boubé	Tanda
12	Salha	Amina
13	Hamadou	Salamou
14	Illiassou	Nafissa
15	Abdou	Nafissa
16	Ali	Halima

## **3. Village of Tondibiah: market gardeners' grouping**

<b>N°</b>	<b>Last name</b>	<b>First name</b>
01	Hima	Maikido
02	Hassane	Sourbadou
03	Soumana	Saley
04	Seyni	Hainikoye
05	Djibo	Mounkaila
06	Bibata	Boureima
07	Kouboura	Soumaila
08	Safi	Mamadou
09	Dammo	Mamadou
10	Aissa	Soumana
11	Maka	Kountché
12	Beri	Kallame
13	Aissa	Hima
14	Rafia	Abdou
15	Mariama	Abdou
16	Halima	Abdou
17	Fati	Issoufou
18	Mariama	Hima
19	Oumou	Tahirou

## **4. Village of Soudouré: Pilot producers and professional growers of improved seed**

<b>N°</b>	<b>Last name</b>	<b>First name</b>
01	Hamadou	Diori

02	Boubacar	Sanda
03	Hassane	Mamoudou
04	Ousseini	Mamoudou
05	Abdou	Diori
06	Moussa	Bagouma
07	Boureima	Mamadou
08	Abdoulaye	Harouna
09	Abdoulaye	Djibo
10	Djibo	Djibo
11	Abdou	Kandalla
12	Biba	Hamadou
13	Gambi	Mounkaila
14	Gambi	Hassane
15	Adiza	Djibo
16	Biba	Djibo
17	Mamadou	Kindo
18	Moussa	Souley 1
19	Moussa	Souley 2
20	Mounkaila	Noma
21	Mounkaila	Harouna
22	Soumana	Harouna
23	Idrissa	Hamadou
24	Hassane	Sounna
25	Idrissa	Yayé

#### **LIST OF PEOPLE IN THE URBAN MUNICIPALITY OF LOGA**

<b>N°</b>	<b>Last name</b>	<b>First name</b>
01	Abdoulaye	Djamaré (Prefect)
02	Oumarou	Allo (Mayor of Loga)
03	Ibrahim	Abdou (Département Environment Director)
04	Garba	Mariama (Municipal Agricultural Officer)
05	Check	Ahmed Souleymane (UNV assistant to the PANA Project)

#### **List of beneficiaries met in the village of Badoko/Loga**

<b>N°</b>	<b>Last name</b>	<b>First name</b>
01	Modi	Karimou
02	Yayé -	Zeinabou
03	Moumouni	Mariama
04	Hamani	Haoua
05	-Saley	Adamou
06	-Insa	Hamidou
07	Moussa	Azia
08	Hassane	Fati
09	-Djibo	Souna
10	-Modi	Harouna
11	Yacouba	Adamou

12	Abass	Yacouba
13	Ibrahim	Idé
14	Issoufou	Idé
15	Soumana	Idé
16	Zakari	Kalilou
17	Tahirou	Mamoudou
18	Ali	Mamoudou
19	Tahirou	Guéri
20	Amadou	Idé
21	Hassane	Kalilou
22	Oumarou	Boubacar
23	Soumana	Mâazou
24	Bachirou	Yacouba
25	Sani	Modibo
26	Mounkaila	Ali

**List of beneficiaries met in the village of Danbazi/Loga**

<b>N°</b>	<b>Last name</b>	<b>First name</b>
01	SalmouTahirou	
02	Mintou	Hamidou
03	Kadi	Guéro
04	Mayou	Zoumari
05	Mintou	Tahirou
06	Hadjo	Goumey
07	Hadiza	Himadou
08	Sahara	Alfari
09	Fati	HALidou
10	Halima	Mamidou
11	-Djatou	Goumey
12	Halima	Halidou
13	-Hadiza	Soumana
14	Kadi	Ali
15	-Aissa	Saley
16	Hadiza	Zakou
17	Kadi	Alfari
18	-Mayou	Zarmakoy
19	Djatou	Boureima
20	Halima	Moumouni
21	Mintou	Abdou
22	Dadé	Sido
23	-Mintou	Garantché
24	Zeinabou	Kailou
25	Hadiza	Siddo
26	Aissa	Daouda

27	Kadi	Tani
28	Safi	Ali
29	Dommo	Zakou

**LIST OF ATTENDEES AT THE BRIEFING AT UNDP ON THE FINAL EVALUATION DOCUMENT**

Laouly ADA, PA to resident UNDP officer
Laouly MAHMANE, SC/Environment/UNDP
Abdou SOUMMAILA, SC/UNCPF
Solange BAKO SAFI, SE/CNEDD
Abdoulaye ISSA, CNEDD expert in monitoring and evaluation
Hassane MOUSSA, national consultant
Joëlle RAMAGE, international consultant
Martine THERER, DRR/prog/UNDP.

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**ACTION PLAN TO IMPLEMENT THE RECOMMENDATIONS FROM THE FINAL EVALUATION**

ACTION PLAN TO IMPLEMENT THE RECOMMENDATIONS FROM THE FINAL EVALUATION								
<b>Country office: Niger</b>								
No	Assessor's finding/observation/comment	Recommendation	Comments of Project Management/ country office	Planned action	Dead-line	Responsible		Action status (finished, under way or not yet started)
						Unit	Person	
<b>1</b>	<b>Project title: PANA RESILENCE</b>							
1	To roll out the actions of the Project in the best possible way, it is necessary to capitalise on these actions more formally, especially based on the components of "lessons learned from the Project." In fact learning from experience is essential to improve quality (quality assurance) in terms of effectiveness, efficiency, sustainability or relevance of the action taken. Capitalisation also has strategic importance (guaranteeing the quality of action taken and gaining credibility). It is also ethically important.	<b>Ensure effective capitalisation on gains and lessons learned from the Project, through appropriate media of communication</b>						

2	<p>Project results must be communicated better to all levels. Developing the communication of a project's results enables people to identify and prioritise their own problems and expectations and seek collective solutions to them. It also strengthens their sense of belonging to activities which they have themselves decided to undertake (as with PANA Resilience). Effective communication also raises the awareness of the project's sponsors.</p>	<p><b>Every effort must be made to improve communication. To this end, a communications expert has just been hired to deal with this constraint</b></p>						
3	<p>When there is little or no cooperation between municipalities, development projects cannot make the best progress. Grouping municipalities together on an 'inter-municipal' basis would allow a response to the challenges facing the country's continuing development work, which cannot focus on just one municipality (this is the situation of PANA Resilience post-completion). Inter-municipal work in general sees itself as a pragmatic response to the management problems encountered by all local councillors. Co-operation between municipalities encourages pooling of resources. It also fosters a search for cohesion and synergy which are essential for closer integration of action which is cross-cutting and involves participation.</p>	<p><b>Putting the inter-municipal concept into practice (by grouping municipalities together) would represent a major step forward in solving the problems and expectations of people and their regions.</b></p>						
4	<p>Regrettably, the Project cover was too thin, given the number of positive results.</p>	<p><b>It is strongly recommended to go nationwide as soon as possible.</b></p>						

5	The set of risk management indicators is defective. They would, however, facilitate the steering of the various processes and activities, to ensure a better response to climate risk.	<b>To improve the methods of adaptation and respond better to the climate risk, it is proposed to adapt the climate alert system to perform better, by setting up weather stations to record multiple parameters on suitable sites.</b>						
6	Several successful Project activities deserve to be spread to neighbouring municipalities by 'ripple effect.'	<b>The successfully piloted activities must be extended through co-financing.</b>						
7	It is necessary to continue the anti-erosion works on the degraded plateaux.	<b>Continue the work on a cash for work or food for work basis.</b>						
8	All beneficiaries who wish to run their businesses properly must become eligible for skills enhancement in the field of management.	<b>Support the enhancement of technical skills in the field of money management and drawing up a profit and loss account; micro-finance management.</b>						
5	Studies of koris and gulleys have been carried out. Countrymen are waiting for this research to lead to practical projects with subsequent funding.	<b>Continue to seek funds and projects to achieve practical results from the completed research (koris and gulleys).</b>						

6	Large numbers of women must have access to sewing apprenticeships (currently some women are prevented from attending, because they live a long way from the needlework centres).	<b>Set up centres for training in sewing and develop other RGAs from which women can profit.</b>						
7	All Project municipalities should be able to issue certificates bearing the joint signatures of PANA and the municipality.	<b>Allow issue of professional seamstress certificates in all Project municipalities.</b>						
8	Food security necessitates a nutrition action plan (e.g. milling of enriched flour). Enriched flours are milled from local produce and may be a solution to malnutrition in periods of extreme drought. The proposed action plan has two aspects: health; and RGAs. It may help to counter malnutrition, by devising a food of optimum nutrition quality, adapted to infant needs and tastes and made to be economically and socially affordable. The processing of agricultural output adds value to local produce.	<b>Support women's groupings in the production of enriched flour.</b>						
9	There is no village 'spokesperson' on the detection of malnutrition in infants under the age of five, breast-feeding mothers and pregnant women. These village figures play a primary role, especially in family planning (contraception, raising awareness of sexually transmitted diseases, behaviour entailing risk, etc). They assist the healthcare specialists in basic routines and primary healthcare	<b>Support issues of food security by means of a community support and monitoring programme, with nomination and training of 'godmothers'.</b>						

	It would be worthwhile and sensible to set up a project of the type 'seed for repairs to rural tracks.' Specifically, small growers would receive the set of seeds (under contract to an NGO or FAO, for example). In return, they would undertake to repair rural tracks. Beneficiaries would remake the tracks under structured general co-ordination, under the auspices of the relevant ministries.	<b>Support a rural track making and repair programme</b>						
10	There is no clinic, and local people are unable to travel to obtain treatment.	<b>Support the opening of outpatient health centres</b>						
11	It would be worth promoting poultry rearing units: these family units (chicken breeding) could lead to egg production. The protein input from the eggs (total protein) are a better and feasible way of controlling food insecurity. Children would be the first to benefit, as well as pregnant and breast-feeding women.	<b>Support socio-economic, environmental and financial research into the set-up of poultry farming units in villages</b>						
12	Solar power is a way of making up for the lack of electricity supply in rural areas, supplying electricity to clinics or schools and pumping water to irrigate crops .	<b>Support the technical and financial study for the set-up of solar panels</b>						
13	It would be very worthwhile to promote the design of a bread oven for women's groups. There would be a genuine interest in this, both to develop RGAs and to put an end to the problems of food insecurity (enhanced resilience of resident population) and use cereal growing products. The bread oven plan would	<b>Support the technical and financial study for the set-up of bread ovens for women's groups</b>						

	<p>be based on local seeds, which would thus be put to good use (crops such as maize, millet or cassava). The women can receive training at the INRAN transformation unit).</p>							
14	<p>Nutrition monitoring is a fundamental aspect of the protection of mothers and children from the consequences of food insecurity. In practice, this necessitates effective and lasting improvement of the nutrition monitoring system at all levels. If due attention is paid to this aspect of nutrition monitoring, especially of mothers and children, the resilience of the population will increase.</p>	<p><b>Support the technical study for the set-up of a reliable, permanent system of nutrition monitoring at all levels</b></p>						