GEF-6 REQUEST FOR PROJECT ENDORSEMENT/APPROVAL

PROJECT TYPE: FULL SIZED PROJECT
TYPE OF TRUST FUND:GEF TRUST FUND

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PART I: PROJECT INFORMATION

Project Title: GEF-IAP Family Farming Development Programme (ProDAF)			
Country(ies):	Niger	GEF Project ID:[1]	9136
GEF Agency(ies):	IFAD	GEF Agency Project ID:	
Other Executing Partner(s):	Ministry of Agriculture, Haut-Commissariat à l'Initiative 3 N	Submission Date:	02 Aug 2016
GEF Focal Area (s):	Land Degradation, Biodiversity, Climate Change, IAP Set Aside	Project Duration (Months)	84 months
Integrated Approach Pilot	IAP-Cities ☐ IAP-Commodities ☐ IAP-Food Security ☒	Corporate Program: SGP ☐	
Name of Parent Program	Fostering Sustainability and Resilience for Food Security in Sub-Saharan Africa	Agency Fee ($)	687,277

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES[2]

Focal Area Objectives/Programs	Focal Area Outcomes	Trust Fund	(in $)	
			GEF Project Financing	Co-financing
LD-1 Program 1, Program 2, IAP-Food Security	Outcome 1.2 Functionality and cover of ecosystems maintained	GEFTF	2,997,881	14,457,402
LD-3 Program 4 IAP-Food Security	Outcome 3.1 Support mechanisms for SLM in wider landscapes established .	GEFTF	0	32,300,000
LD-3 Program 4 IAP-Food Security	Outcome 3.2 Integrated landscape management practices adopted by local communities.	GEFTF	3,706,114	2,040,042
LD-4 Program 5 IAP-Food Security	Outcome 4.2 Innovative mechanisms for multiple-stakeholder planning and investments in SLM at scale.	(select)	932,427	11,522,556
	Total project costs		7,636,422	60,320,000

[1] Project ID number remains the same as the assigned PIF number.
[2] When completing Table A, refer to the excerpts on *GEF 6 Results Frameworks for GETF, LDCF and SCCF*.

B. PROJECT DESCRIPTION SUMMARY

Project Objective: Ensure sustainable food security and strengthen smallholder farming resilience						
Project Components/ Programs	**Financing Type[3]**	**Project Outcomes**	**Project Outputs**	**Trust Fund**	**(in $)**	
					GEF Project Financing	**Confirmed Co-financing**
C1. Scaling up of integrated approaches through for sustainable family farming	Inv&TA	1.1. The emergence of sustainable family farms will allow rural producers, including women and youth, to diversify their production, increase their yields and their capacities to adapt to external shocks, notably climate.	(i) Soil and water conservation investments are scaled up (40,000 hectares); (ii) improved agro-ecosystem resilience through water mobilisation; (iii) improving food security and smallholder resilience to drought through the promotion of small-scale irrigation on 7,500 hectares	GEFTF	6,703,995	16,497,444
		1.2 The national contribution to positive outcomes on the global environment and on the resilience of agro-ecosystems are coordinated, monitored and evaluated	(i) The monitoring and assessment of environmental indicators are ensured; (ii) the capitalization of knowledge and its dissemination is achieved	GEFTF	600,000	6,722,056
C2. Access to markets	Inv	2. Farmers more efficiently market their agro-silvo-pastoral production surplus through half-bulk markets that supply the national centres of consumption and transboundary markets.	(i) Services to producers through 21 (9 new) rural clusters of economic development fully equipped with economical infrastructures being part of « Maison du Paysan » (Farmer House) in 27 communes; (ii) densification of the feeder roads network through the construction and rehabilitation of 850 km of feeder roads	GEFTF	0	32,300,000
			Subtotal		7,303,995	55,519,500
			Project Management Cost (PMC)[4]	GEFTF	332,427	4,800,500
			Total project costs		7,636,422	60,320,000

[3] Financing type can be either investment or technical assistance.

[4] For GEF Project Financing up to $2 million, PMC could be up to10% of the subtotal; above $2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

C. CONFIRMED SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE

Please include evidence for co-financing for the project with this form.

Sources of Co-financing	Name of Co-financier	Type of Cofinancing	Amount ($)
GEF Agency	IFAD	Grants & loans	51,272,000
Recepient Government	Government of Niger	In-kind	6,032,000
Beneficiairies	Beneficiaries	In-kind	3,016,000
Total Co-financing			60,320,000

D. TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

GEF Agency	Trust Fund	Country Name/Global	Focal Area	Programming of Funds	(in $)		
					GEF Project Financing (a)	Agency Fee [a] (b)[2]	Total (c)=a+b
IFAD	GEFTF	Country	Land Degradation	IAP-Food Security	3,003,395	270,305	3,273,700
IFAD	GEFTF	Country	Biodiversity	IAP-Food Security	458,716	41,284	500,000
IFAD	GEFTF	Country	Climate change	IAP-Food Security	504,587	45,412	550,000
IFAD	GEFTF	IAP-Food Security (set-aside)	IAP- Food Security	IAP-Food Security	3,669,724	330,276	4,000,000
Total Grant Resources					7,636,422	687,277	8,323,700

a) Refer to the Fee Policy for GEF Partner Agencies

E. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS[5]

Provide the expected project targets as appropriate.

Corporate Results	Replenishment Targets	Project Targets*
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	*40,000 hectares*
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	*190,000 hectares*
3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services	Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins;	*0 freshwater basins*
	20% of globally over-exploited fisheries (by volume) moved to more sustainable levels	*0 Percent of fisheries, by volume*
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO_{2e} mitigated (include both direct and indirect)	*346,302 metric tons*
5. Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern	Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)	*0 metric tons*
	Reduction of 1000 tons of Mercury	*0 metric tons*
	Phase-out of 303.44 tons of ODP (HCFC)	*0 ODP tons*
6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks	Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries	*Number of Countries: 0*
	Functional environmental information systems are established to support decision-making in at least 10 countries	*Number of Countries: 1*

** Including cofinancing targets*

F. DOES THE PROJECT INCLUDE A "NON-GRANT" INSTRUMENT? NO

(If non-grant instruments are used, provide an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF Trust Fund) in Annex D.

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PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN WITH THE ORIGINAL PIF[6]

[5] Update the applicable indicators provided at PIF stage. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the *GEF-6 Programming Directions*, will be aggregated and reported during mid-term and at the conclusion of the replenishment period.

A.1. *Project Description*. Elaborate on:

1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed;
Niger's climate is characterized by its drought, and the strong variation in precipitations from one year to the next. These charateristics lead (directly or indirectly) to the following perturbations: a reduction in the total area of forest spaces, accelerated animal and vegetal biodiversity loss, weak natural regeneration, land degradation, dwindling of surface waters (of the Niger river in particular), perturbations and modifications of the ecosystems, proliferation of plant species non-usable by small cattle, heat related water stress, higher sensitivity of crops at blooming stage, impact on wetland, loss of young plantations, and proliferation of climate-sensitive diseases.

Niger's family farming's high vulnerability to climate variability, is amplified by the effects of climate change, which affect livelihoods on the long term (production potential: fertility, soil, water) and short term (post crisis decapitalization), with a negative impact on food and nutrition security. IFPRI's projection models anticipate an important decrease in cereal yields (of 5-25% for rainfed sorghum) if no action is taken to improve the adaptation of nigerien productive systems to climate change. These models also show that the yield reduction could be accompanied by a decrease in the area cultivated with millet and sorghum (two of Niger's main staple crops). International, regional and national markets may also propagate the effects of climate change on food security, as it was the case during 2005's food crisis.

In environmental terms, the Tahoua, Maradi and Zinder Regions are marked by the phenomenon of erosion (wind and water) whose most visible manifestations are the silting of watersheds, the gulbis, the formation of kori, deforestation and declining groundwater levels. These types of degradation are observed differently from one agro-ecological area to another. Thus, in Tahoua, water erosion is particularly predominant in the Maggia and Tarka valleys and in Badaguichiri Watershed. Maradi Region is affected by the same phenomenon of water erosion, i.e. undercutting of banks in the gulbis (Kaba and Maradi). In the Zinder Region, the two forms of erosion are present, with a high intensity in the area of Korama basin (market gardening and sugar cane production) and in the oasis basins (south-east of the region).

To mitigate this phenomenon and to facilitate the sustainable access of the local populations to water and land resources available in these watershed basins and their production basins (basins and valleys), soil and water conservation (SWC) and soil protection and restoration (SPR) works (structures) will be undertaken on a large scale.

2) the baseline scenario or any associated baseline projects,
The baseline for the GEF/IAP intervention in Niger is the Family Farming Development Program (ProDAF)). ProDAF will benefit to about 24#90,000 smallholder farming households. Three types of activities have been identified and targeted: i) highly vulnerable family farms; ii) intermediate family farms / moderately vulnerable ; and iii) less vulnerable family farms. The program will also put a specific emphasis on women and youth. Among youth, special attention will be given to young women. Women and youth will represent at least 30% of the beneficiaries. The overall objective of the baseline (ProDAF) is to contribute to sustainable food and nutrition security and strengthen resilience of rural households in Maradi, Tahoua and Zinder. The development objective is to sustainably increase the income of 240,000 family farms, their resilience to external shocks, including climate change, and their access to local, urban and regional markets in the three regions.

The Programme takes into account the resilience of the family production model in the short and long term by focusing on sustainability at the economic level (profitability of systems, access to capital), the social level (all the local stakeholders become active in decision making processes), and the environmental and the climatic level (management and monitoring of natural resources, implementation of agricultural practices that reduce the impact of climate change on the production system, infrastructures to secure household access to agricultural water, as well as infrastructure designed or located by taking account of climate risks).

[6] For questions A.1 –A.7 in Part II, if there are no changes since PIF , no need to respond, please enter "NA" after the respective question.

The baseline intervention is articulated around three components: i) Strengthening sustainable family farming ; ii) improving access to markets; and iii) program management and coordination, monitoring and evaluation (M&E) and knowledge management. The overall cost of ProDAF over a period of eight years, is estimated at US $ 207,2 million. This cost is notably covered by: IFAD leftover budget from PASADEM/PPI-Ruwanmu (US $ 10,5 million, 5,1%), PBAS (Performance Based Allocation System) 2013-2015 (US $ 48,5 million, 23,4%), PBAS 2016-2018 (US $ 48,5 million, 23,4%), ASAP (US $ 13,0 million, 6,3%), GEF/IAP (US $ 7,6 millions de dollars EU, soit 3,9%). About USD 60 million will contribute to the co-financing of the proposed GEF initiative.

3) the proposed alternative scenario, GEF focal area[7] strategies, with a brief description of expected outcomes and components of the project,

The activities financed by the GEF and the Adaptation for Smallholder Agriculture Programme (ASAP) (the climate change adaptation funds) were identified jointly during the first ProDAF formulation cycle in order to ensure the best synergies between these funds, and the most efficient upscaling of capitalized practices to improve resilience in Niger. The rationale for the integration of ASAP financing under ProDAF is based on the need to ensure the sustainability of targeted production systems by ensuring their climate resilience. At the project conception, the complementarity between the GEF and ASAP (two sources of funding specifically adressing resilience within ProDAF) was defined by allocating GEF funds to activities regarding overall ecosystem resilience while ASAP funds were allocated to activities improving resilience at the agricultural parcel level.

The GEF contribution to ProDAF focuses on Component 1 – Sustainable family farming: sub-component 1.1. and sub-component 1.2. (stakeholders capacity building). Therefore, this financing mainly contributes to the first ProDAF outcome, which is perfectly aligned with the expected IAP outcomes: Outcome 1, related to strengthened sustainable family farming: “within their farms, rural producers, including women and youth, diversify their production, increase their yields and increase their adaptability to external shocks, including climate related shocks”.

Component 1 – Sustainable family farming

Within ProDAF, this component aims at sustainably increasing family farms productivity by: (i) consolidating and managing 20,500 ha of watershed basins through landscape investments that will participate in the protection of downstream infrastructures and in the replenishment of underground water resources; (ii) building 150 water mobilization works (weirs, micro-dams, ponds); (iii) creating 7,500 ha of irrigable area under small-scale irrigation (including 700 ha of hydro-agricultural works under small-scale irrigation schemes), involving 22 Water Users’ Associations responsible for the waterworks viability and the natural resources management ; (iv) increasing yields of rainfed crops by 30 percent and of irrigated crops by 40 percent; and (v) improving small-scale livestock farming with the replenishment of small livestock and poultry stocks for 30,000 vulnerable farming families. The component also aims to improve the nutrition security of 100,000 households.

Under this component, the GEF will contribute to: (i) consolidating and managing 4,093 ha of watershed basins through landscape works, that will participate in downstream infrastructures protection and underground water resources replenishment; (ii) increasing farming areas through building 12 weirs to improve run-off water resources mobilization (840 ha of exploitable land) and establishing live hedges to protect 400 ha; and (iii) protecting ecosystems and facilitating the development of resilient income-generating activities (four ponds and 2,500 ha of passage corridors for cattle). These activities will strengthen the resilience of over 22,400 households, or close to 157,000 people.

Sub-component 1.1. Climate resilient landscaping and productive assets: watershed works (contributing directly to Aichi Biodiversity targets 5, 7, 11, 14 and 15)

Activity 1: Rehabilitation of degraded land upstream of the watershed basin

This activity aims to recreate the vegetal cover of barren or highly degraded lands in community sites, which are mostly svlvo-pastoral. The combination of SWC/SPR works (stone barriers, earth bunds, half-moons, dry-stone weirs) with forest tree planting on collective land allows to restore its productivity through the capture and improved efficiency of water runoff for agricultural or pastoral purposes while reducing water and wind erosion, leading to an impact at three levels: (i) the environment, with the regrowth of vegetal cover, which improves carbon sequestration (increase in above-

[7] For biodiversity projects, in addition to explaining the project’s consistency with the biodiversity focal area strategy, objectives and programs, please also describe which Aichi Target(s) the project will directly contribute to achieving..

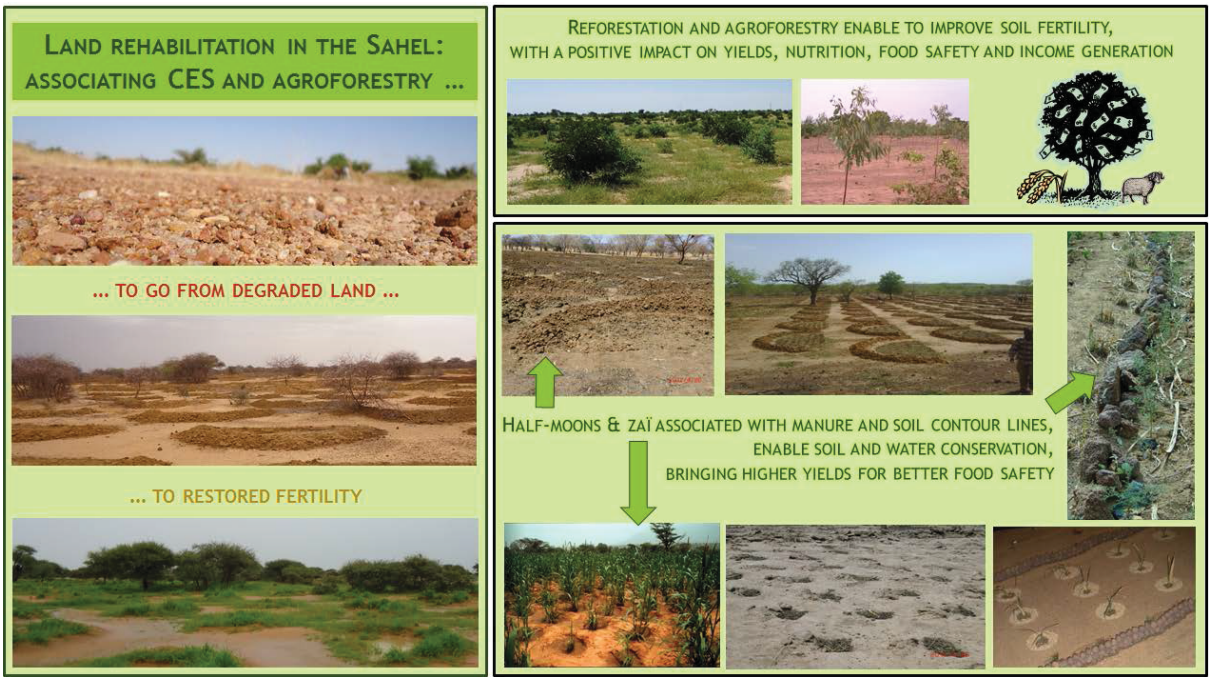
and below-ground biomass) and the creation of spaces that are conducive to increasing biodiversity; (ii) the water availability, with better water infiltration, which, in the short term, increases the underground water table at the watershed-scale; and (iii) the production potential, with the production of fodder for livestock farming and the possible development of non-timber forest products.

Building on PASADEM experience, land rehabilitation activities will be carried out through a partnership with World Food Programme (WFP) *Cash for Assets* program in community sites whose land tenure status will have been clarified. They consist of: (i) building up earth bunds on slight to moderate slope area on indurate soils or compacting the level of works – seeds should be planted in the impluvium in the early wet season (herbaceous plants or direct sowing of woody plants, both indegenous); (ii) creating half moons on slight slope areas (for fodder, agriculture or forestry according to the use status of the intervention areas); and (iii) possibly, if the conditions are conducive (depending on land tenure issues and the availability of organic matter), creating planting pits *(zai*) on crusted or compacted areas for agricultural or forestry. These activities will be carried out in two steps: mechanical work during the dry season, and biological work during the early wet season.

In total, the rehabilitation work will concern **10,450 ha (2,093 ha of which will be financed by the GEF)** and will be carried out for about **31,500 vulnerable households'** direct benefit (Cash for Assets), of whom 6,930 households will be directly affected by the GEF (including 30% women and 30% youth). To ensure the sustainability of these investments, watershed basins maintenance committees will be set up in cooperation with the Water Users' Associations for each rehabilitated watershed basin. These committees will be responsible for the preservation of the works and the sustainable use of its by-products (fodder, fruits, leaves, bird fauna, etc.). These Management Committees will benefit from training on climate change adaptation organized through the 20 Water Users' Associations.

The watershed basins works will complement those already built under PASADEM (2,000 ha) and PPI Ruwanmu (2,000 ha). In the three regions, collaboration opportunities with other implemented projects addressing similar issues will be explored, especially those using WFP's "Cash for Assets" approach.

Figure 1: Overview of the soil and water conservation (SWC) /soil protection and restoration (SPR) and agroforestry techniques implemented in the Sahel, and their impact



Activity 2: Treatment of watershed basins against erosion and run-off water

These ASAP supported activities require collecting stones and therefore also: (i) an identification of suitable source; (ii) crushing work (high labour-intensive [HLI] work); (iii) a haulage mechanism adapted to the sites to be treated (moving

high tonnage); (iv) maintenance of primary stone piles within the plots adapted to women's HLI; and (v) a clarification of the land tenure status of the treated areas, to ensure the sustainability of the investment.

As for land rehabilitation activities, these activities may be carried out in partnership with WFP through its "Cash for Assets" approach. They will cover community lands with medium to steep slope. They will consist of: (i) building stone lines following the contour lines on moderate runoff areas (glacis, top of slope); (ii) digging trenches following the contour lines on steep sloped areas or strong runoff areas; removed soil from the trenches is compacted to create a downstream levee and gaps between trenches and the levee can be cultivated (sowing of agricultural or woody plants); and (iii) building dry stone filtering weirs on the gullies. The steep-sloped gullies that would require more complex engineering will not be involved in these works because they are beyond the conventional scale of intervention of the Cash for Assets approach.

These predominantly mechanical activities (with the exception of trenches digging) require the capacity to delineate contours lines as well as regular maintenance. This reduces the phenomena of downstream gullying (which will be more intense as a result of climate change) and improves local water infiltration. These structures can also be strengthened by vegetation growth. Their implementation will treat 7,000 ha of watershed basin against erosion and runoff water.

Activity 3. Lateral water-spreading weirs

These works are designed to collect water in low-grade areas to recharge aquifers, store underground water and allow to grow flood recession crops or off-season crops. They also have a slowing downstream water erosion impact. They consist of long and moderately high dykes, which allow water to accumulate in minor water beds with a gentle side slope or in gentle slope areas, receiving significant runoff. Likewise, they concentrate a slight to moderate water depth on extended surfaces, allowing both an increased water availability for animals and flood recession crop surface areas with the gradual lowering of the water level at the end of the rainy season. Although these works can also help collect fertile sediment from the erosion, they are not adapted to the development of areas affected by severe erosion/gullying. In such complex cases, the lateral water-spreading weirs must be combined with anti-erosion works upstream (water and soil conservation, filtering weirs, etc.); otherwise, they would be ineffective due to sedimentary deposition.

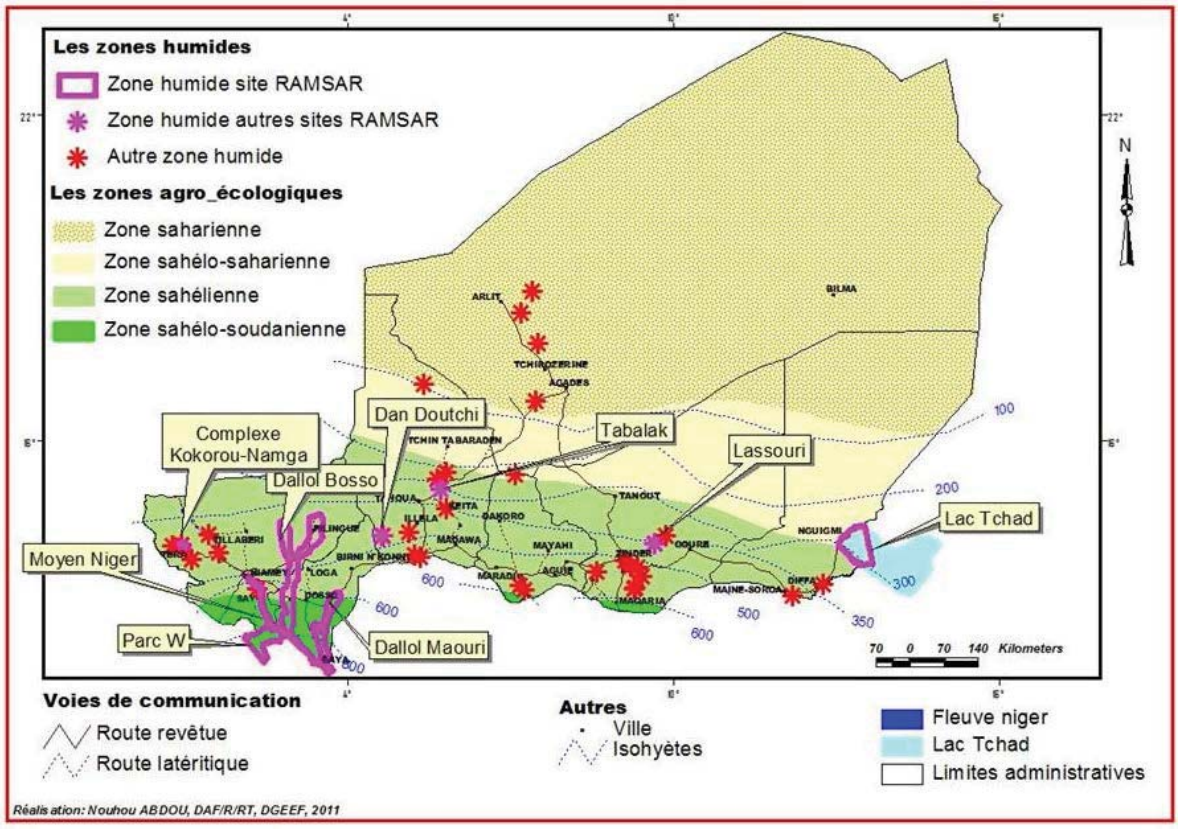
These types of works improve resilience by providing new opportunities for food production, and even livestock watering in some cases, while also supporting the groundwater recharge and reducing downstream erosion. The GEF financing will contribute to this ProDAF activity with the construction of **12 weirs** and the carrying out of preliminary studies, as well as monitoring of the construction works.

Activity 4. Pond rehabilitation (contributing directly to Aichi Biodiversity targets 6, 9 and 11)

In the three regions covered by ProDAF, there are about 30 permanent ponds and lakes, as well as a large number of semi-permanent and temporary ponds. Some of these ponds (Dan Doutchi and Tabalak ponds in Tahoua, Lake Madarounfa in Maradi, Lake Guidimouni and Lassouri pond in Zinder) play a fundamental role in the economy of these regions (fishing, irrigated crop potential and pastoral farming). Three sites in particular are classified as wetlands of international importance under the Ramsar classification system for wetland. These are the Lassouri pond in Zinder Region and Tabalak and Dan Doutchi ponds in the Tahoua Region. These ponds are affected by silting and infested by invasive plants (Typha spp.).

The activities conducted in these regions will include, in addition to the infrastructures (fish stocking, irrigated crops), waterweed cutting, dune fixation and treatment of banks, depending on the severity of the problem to be addressed. The three Ramsar sites will be treated in priority in order to conserve these particular ecosystems and enhance the benefits of these exceptional wetlands both at the national and international levels.

FIGURE 2: RAMSAR WETLANDS AND SITES IDENTIFIED IN NIGER



The works will be carried out on **four ponds** through the use of high-intensity labour recruited locally and remunerated on the basis of the Cash for Assets approach. These works will develop and protect **400 ha** of water bodies and affect **1,200 beneficiaries** (30% women and 30%, youth).

Activity 5. Dune fixation

Vegetation disappearance as a result of drought or man-made causes can render sandy soils barren , which mainly under the effect of wind, can be further degraded or facilitate the formation of dunes. These dunes can spread or move, thus threatening areas that could play an important environmental (ponds) or social role (horticultural lowlands with higher added value). To protect these areas, dune fixation operations can be undertaken. They combine two essential components: (i) a "**mechanical fixation" stage** using a grid consisting in fences/checkerboard grids perpendicular to the prevailing winds and the steepest lines. These fences/checkerboard grids must be protected (from straying animals, strong winds) and regularly lifted (due to the sand accumulating in the spaces in the grid, the fences/checkerboard grids should be regularly re-assembled); and (ii) a "**biological fixation" stage** in which the spaces of the grids are sown with grassy species with a high capacity of cover and surface root growth. This fixation must be carried out during the rainy season in all treated areas and enables to stabilize the soil and the particles collected by fences/checkerboard grids.

Emphasis should be placed on the **maintenance of the infrastructures**. The fences/checkerboard grids are made either from synthetic materials (Everite nets or panels, more expensive but more inert) or woody materials (cut branches or sticks maintained by a wire lattice). It is advisable to see if **there are any available scattered branches (e.g. Leptadaenia) nearby so as not to risk degrading new spaces**. This structure is relatively **expensive and complex** to implement as well as to maintain. It is therefore advisable to limit its use to areas with particularly high risk to maximize opportunities for their sustainability (ownership, opportunity cost). The GEF financing will contribute to stabilizing dunes around the catchmentbasins over an 2,000 ha area through Cash for Assets approach.

Activity 6. Live hedges in the irrigated crop sites

The protection of market garden sites is a request repeatedly made in all the regions, especially by women with regard to home gardens. The programme will support the target groups (with at least 30% women and 30% youth) to implement a rural initiatives system (DIP) to protect **400 ha** of irrigated crop sites, particularly market gardens. This will affect **360 households** while enhancing carbon sequestration in the soil throughout the plots.

Activity 7. Establishment of pastoral passage corridors (contributing directly to Aichi Biodiversity target 9)

The territories covered by ProDAF are seasonal transhumance sites for livestock, a key element of the rural economy of these regions. This activity can be observed in the field by the presence of "international pastoral corridors" corresponding to transhumance routes, which play a key role in limiting the risk of seasonal conflicts between farmers and transhumant livestock keepers. With the increased agricultural land pressure, the drier climate, and the emergency of invasive species, two key challenges emerge : (i) maintening the corridors' integrity in order to avoid the risk of straying animals or of undue agricultural uses; and (ii) improving the fodder quality in the corridors to limit the risk of animal straying and to mitigate the constraints generated by an increasingly early migration (reduction of the vegetation growth period).

As a result, ProDAF will intervene in the delimitation of passage corridors (e.g. demarcation with the *Euphorbia* sp. plant), the fight against the invasive species *Sida cordifolia* (by hand weeding) and the enrichment of the corridors with high-value fodder grass; **2,500 ha** will be treated.

Activity 8. Environmentally geolocalized monitoring system

This ASAP-funded system will integrate all the activities (including some innovative ones) for the geo-localization of programme interventions: use of GPS, Geographic Information Systems (GIS) and remote sensing.

The IFAD programme in Niger has gained valuable experience in remote sensing through several partnerships with companies renowned for their international expertise. PASADEM and PPI-Ruwanmu had already been equipped with ArcView software, base maps and GPS, and some of the project staff have been trained in the use of GIS. These projects have acquired expertise in geolocalizing activities, which enables them to visualize the following on maps: (i) natural resources trends and the characterization of environmental risks (damage, floods, rehabilitation, sowing, irrigation, land status, etc.); (ii) ProDAF achievements (by type, number and geolocalization); and (iii) the rehabilitated/built roads. The strengthening of this pilot system within ProDAF will result in: (i) the set-up of an environmental risk analysis system; (ii) the establishment and operationalization of a permanent system for monitoring and analysis of the water resources trends; and (iii) the production of a reliable database on the impacts of the programme on people's resilience to climate change.

Sub-component 1.2. Rural stakeholders' capacity building

The following activities, financed by ASAP, complete the GEF-funded activities in order to promote synergies to upscale activities involved in strengthening the resilience of rural poor populations.

Section 1. Improvement of farming systems (contributing directly to Aichi Biodiversity targets 5, 7, 14 and 15)

Activity 1. Building farmers' capacities in agricultural practices that are resilient to climate change through farmers' field schools

As part of ProDAF activities, for the rainfed crops, District technical services will set up **1,200 Farmers' Field Schools (FFSs)** (an average of 80 FFSs per EDC). During implementation stages, the setting up of the FFSs will require intensive training of facilitators and the use of technology (soil fertility, SWC/SPR, ANR, integrated pest management, etc.). Specific documentation will be drafted and made available to facilitators and producers. Around each of the FFSs, 20 demonstration plots of 0.5 ha will be set up, for a total of **24,000 farmers' extension services plots** for the duration of the programme.

The FFS implementation will be carried out as follows: each trainer will be responsible for two FFSs. In each FFS, 20 farmers will be trained in two sessions (over two years), i.e. **24,000 people trained** (at least 30% women and 30% youth) at the end of the programme. The beneficiaries of the FFS will receive a training certificate and an opportunity to integrate the extension services in their area. These trained farmers will animate the farmers' extension service plots thus enabling a replication through the peer-to-peer outreach around the FFS; each of them will receive a "voucher" of CFAF 38,000 to be provided with inputs from the local input shop to be used on their demonstration plot. It should be

noted that farmers' extension services may also be implemented by local farmer innovators, who are not necessarily beneficiaries of ProDAF. For the supply of seeds to FFSs (particularly improved seeds that are better adapted to climate change),[8] the CRAs will be asked to identify the seed groups (Farmers' Organizations) or providers (private or research)[9] who are best able to meet the needs of the programme.

The FFSs will be one of the key sites for the extension of techniques enabling farmers to practise more climate-resilient farming. With the introduction of this mechanism, it is expected that **100 per cent of farmers will use efficient production technologies**, which will result in **increased yields of crops concerned by 60 per cent** (millet, sorghum, cowpea, groundnut),[10] and in improved resilience to climate shocks (ANR, SWC, the use of organic manure, dissemination of climate change-adapted varieties). The FFS training mechanism and then peer-to-peer extension through farmers' extension services will enable the restoration of **17,000 ha under Assisted Natural Regeneration (ANR)**. To this end, ASAP will contribute to finance the activity by: (i) financing the training of trainers on technologies that are better adapted to climate change; and (ii) financing exchange activities (Open Days, exchange trips among the FFSs and national study tours).

Activity 2. **Dissemination of practices at a large scale: assisted natural regeneration (ANR) (contributing directly to Aichi Biodiversity targets 5, 7, 14 and 15)**

ProDAF has set an ambitious goal of scaling up ANR. Likewise, the current FFS mechanism will be complemented by an additional training mechanism on ANR to achieve the overall target of 175,000 ha. To this end, lessons learned will be drawn from PPILDA and PASADEM, which, through partnerships with NGOs and technical services, have already restored tens of thousands of hectares under ANR. Recent studies in Niger have documented the impact on the maintenance or regeneration of shrub cover in some areas of the country, which is a development related both to projects and the dissemination of the approach many years after the end of a project (Botoni and Reij, 2009).

ANR consists in optimizing the growth of young trees or existing trees of agricultural interest (e.g. *Faidherbia albida*) or fodder plants already present on the plot through: (i) their protection against animals and tillage of the soil; (ii) their selection and pruning to enhance the growth of shoots or their health; and (iii) any direct planting of local woody species. A density of 40 trees per hectare or more is needed to benefit from the positive impacts (enrichment of soil organic matter content, lowering of surface evaporation, reduction of wind erosion, improvement of water infiltration). On the medium term (after 7 to 8 years) ANR allows to generate non-farm incomes through the collection of wood from pruning the tree of the plots.

This simple technique is disseminated through awareness raising, some simple technical basic skills on conducting ANR and pruning trees, and some tools (pruning shears, marking of young plants, and possibly grafting).

In addition to its buffer effect with regards to climate hazards, this practice increases the amount of carbon sequestered in the plot since the cover created by the ANR is characterized as perennial agroforestry parkland..

Section 2. Organisational and institutional strengthening (contributing to Aichi Biodiversity target 1)

Activity 1. Capacity building of Water Users' Associations

The programme will include capacity-building sessions of the Water Users' Associations on sustainable natural resources management, and implications of climate change on the availability and use of water resources. This sensitisation will be complemented by training on the maintenance of the infrastructure works built by the programme (weirs, infiltration and anti-erosion works, etc.) and on the importance of their maintenance to improve access to water. The support to the Water Users' Associations is key for the sustainability of the programme's outcomes.

Activity 2. Support to the integration of the climate dimension into the communal development plans

[8] In particular, the short-term varieties, or those that are most resistent to water stress, which allow to cope, respectively, with the reduction in the duration of rainfall and the strong variability of precipitation, in the context of climate change.

[9] INRAN notably has a certain number of improved varieties. Moreover, RECA has an large inventory of improved seeds available at the Farmers' Organizations: www.reca-niger.org/IMG/pdf/Informations_semences_CASPANI_22_avril_2014.pdf.

[10] This forecast on yield, conservative with respect to the suggested technical potential, takes into account the rainfall variability of the area and the concern to align with the HCi3N objectives. These aspects will be further explored at the second design mission.

The local authorities (mairies) and regional councils will be supported to play their role in project management (updating the communal development plans, participation in planning mechanisms). In particular, the inclusion of the climate dimension in local planning documents allows to internalize the management of climate risks in local governance. ProDAF will support the revision of 30 communal development plans (two per year and per region for five years). The implementing partners will be the District technical services.

Just like innovative experiences already implemented in other IFAD projects in the subregion, this activity will be based on a **participatory mapping** approach in order to cover identified issues and facilitate a consensus on land use and on the management of environmental and climate constraints. This exercise will involve local stakeholders (elected authorities, decentralized technical services, rural population whether men, women, youth, farmers, livestock keepers).

This activity will integrate the achievements of the Programme in the local planning documents as well as identify actions to be implemented for sustainable land development beyond the ProDAF intervention. This will result in the first upscaling of ProDAF activities contributing towards a more comprehensive planning.

Moreover, the integration of the climate dimension in the communal development plans through the participatory mapping could have a demonstrative impact, which could lead other local authorities to develop this approach beyond the ProDAF intervention areas.

Support to the Land Commissions (COFOs). Access to land is hindered by the mismatch between: (i) population growth rate; (ii) availability of the natural resources; and (iii) lack of knowledge and/or non-application of basic laws (the Rural Code, customary law and Islamic law). This is often compounded by poor management of conflicts between crop and livestock farmers as well as difficulties of access to land, especially for women[11]. ProDAF (excluding ASAP and GEF financing) will continue support to the Rural Code and Land Commissions (COFOs) at different levels (departmental, communal and village) in: (i) the wide dissemination of current legislation; (ii) the definition of land status (before and after the construction/rehabilitation of the infrastructures); (iii) negotiation skills to reach sustainable management of the developed lands; and (iv) the revitalization and/or organization of non-operational/inexistent basic structures.

Activity 3. Institutional support to the HCi3N

The IAP programme aims to strengthen national monitoring and evaluation systems for better consideration of the linkages between sustainable ecosystem management and improvement of food security and resilience. It also aims to support decision making in rural development policies. In this context, the ProDAF-IAP integrated GEF-IAP funding provides for an institutional support to the High Commission of the 3N initiative (HCi3N), “Nigeriens feed Nigeriens”, amounting USD 600,000[12] . This funding will be made available to the HCi3N through a renewable three-year collaboration agreement and whose costs will be confirmed following an evaluation of deliverables.

Sub-activity 1. Strengthening HCi3N Monitoring and Evaluation Mechanism

The GEF-IAP funding will strengthen the HCi3N monitoring and evaluation mechanism through the acquisition of equipment to develop a database on food security, the preparation and publication of a database indicators abstract and the regular updating of the database. The data collection system will be strengthened by the set-up of a monitoring and evaluation mechanism in each area of intervention, data collection field missions, as well as quarterly monitoring and supervision missions in each region.

Beyond an operational data collection, archiving and analysis system, the HCi3N monitoring and evaluation mechanism will be strengthened through operational training sessions per region for actors involved in this mechanism, with two workshops on GIS and six workshops on geolocalization. In addition, there will be six workshops with regional actors/partners on various themes (integrating nutrition, results-based management of the HCi3N database, carbon footprint, etc.) to harmonize measurement methods of the selected indicators.

[11] Some will even say that there is a “de-feminization of agriculture”.
[12] See details in Appendix 3 of the project design document.

Sub-activity 2. Capitalization and dissemination of knowledge useful to decision-making

The GEF-IAP financing will improve the capitalization of good practices and their dissemination. A good practice capitalization workshop will be organized in each ProDAF intervention region, following which good practices will be widely disseminated and made accessible to the public (three kinds of multimedia broadcasts). These good practices may have been subject to preliminary studies.

Furthermore, in continuation with GEF/PASADEM activities, which had supported the Regional Directorate of the Environment (DRE) to set up and manage a documentation and information centre/library on sustainable land management, the HCi3N, with GEF-IAP funding, will continue to support this documentation centre in Maradi Region, and create and support documentation centres in Tahoua and Zinder Regions. These public centres will highlight in particular the documentation produced by the HCi3N and its partners (good practices capitalized on).

The GEF/PASADEM had supported the establishment of a multi-actor sustainable land management platform in Maradi Region, chaired by the Governor and led by the Regional Directorate of the Environment (DRE). The platform had been successfully linked with the HCi3N Technical Group on sustainable land management in the Maradi Region. In line with the lessons drawn from this experience, the HCi3N will promote, through the GEF-IAP financing, the facilitation of six regional technical committees, i.e. two per intervention area (including the multi-actor regional platform of Maradi).

Finally, in order for the HCi3N to be integrated into the subregional dynamics of Food Security GEF-IAP programme, it will make best use of the funds received to organize two regional exchange workshops on lessons learned in family farming with key actors involved in the other two subregional GEF-IAP projects (in Burkina Faso and Senegal). An exchange trip in each of these two countries will also be organized. These workshops and exchange visits will give national and subregional visibility to the HCi3N, especially in the preparation of policies taking into account lessons learned from interventions of the HCi3N partners in the sectors of environment and food security.

4) incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing;

As exposed in 3), the activities financed by GEF and ASAP were identified jointly during the first ProDAF formulation cycle in order to ensure the best synergies between these funds, and the most efficient upscaling of capitalized practices to improve resilience in Niger. At the programme conception, the complementarity between the GEF and ASAP (two sources of funding adressing resilience specifically within ProDAF) was defined by allocating GEF funds to activities regarding general ecosystem resilience while ASAP funds were allocated to activities improving resilience at the agricultural parcel level (the rationale for the integration of ASAP financing under ProDAF is based on the need to ensure the sustainability of targeted farming systems by granting their climate resilience.).

ProDAF activities	GEF/IAP additionality
Land management at watershed level	2,093 ha of forest/pastoral land under recuperation using the techniques and approach defined under the GEF/PASADEM project (Cash for Assets; partnership with WFP; sustainability of the investments) & mobilisation of IFAD funds to scale up activities over a total of 9,512 ha thus enabling to protect close to 40,000 ha of watershed.
	Protection of dunes around the basins over 2,000 ha
Sustainable strengthening of exploitable surface areas (134 weirs protecting the watershed)	12 weirs protecting 840 ha
	400 ha of live hedges protecting women's gardens
Income generation	Income generation through the restauration of degraded ecosystems: - Establishment of passage corridors (fight against Sida cordifolia) over 2,500 ha - Creation/protection of four ponds including 3 in Ramsar areas (fight against Typha) over 400 ha
Institutional strengthening: resilience is taken into account at communal and local level (capacity building of WUA and integration of climate into communal development plans)	Resilience taken into account at national level (convention with HCi3N)
Monitoring and evaluation	Reinforcement of the national M&E system to complete the monitoring of ProDAF activities in all three regions

5) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF);

GEF activities developed within ProDAF will have multiple impacts on the global environment. The many land rehabilitation and water management activities on the watershed basin will ensure the sustainability of ecosystems and thus the greater resilience of farming systems, with a direct impact on improving food security. All of GEF activities also contribute to enhancing carbon storage in the soil (revegetation through land rehabilitation, the establishment of passage corridors and the protection of dunes; the planting of live hedges and the rehabilitation of ponds); and it has been estimated that all ProDAF activities will help to sequester or avoid emissions of 1.4 tons of CO2-eq per hectare per year. In addition, GEF activities promoted through ProDAF contribute to the conservation of biodiversity, both through the rehabilitation of ponds in Ramsar sites where the project will ensure the protection and sustainable management of ecosystems, and through activities such as the establishment of passage corridors where the removal of invasive species *Sida cordifolia* will allow the return of more diversified ecosystems.

6) innovativeness, sustainability and potential for scaling up.

A large portion of GEF activities are dedicated to strengthening technical and institutional capacities on resilience. All activities will follow the rules of gender and youth mainstreaming, and particularly those dealing with Cash for Assets

schemes and capacity building. Activities to improve productive assets (water, land) indirectly benefit the beneficiary's whole household. This approach will enable for all the different stakeholders in the project area to be sensitised on environmental and climate change issues.

Adoption of disseminated techniques. Extension activities that improve climate change adaptation in the field rely on farmers' field schools (FFS) and peer-to-peer approach, which allows ownership of innovative approaches by small-scale farmers. This approach builds on the achievements of other IFAD programmes in Niger (see Lessons learned I the project design document) and offers simple techniques that can easily be adopted by the beneficiaries as demonstrated in past projects, particularly due to: (i) the relevance of interventions related to the environmental and socio-economic context of the intervention areas; (ii) the immediate impact of the technologies on the environment, crops and sources of income; and (iii) the low cost of the investment. It must be noted that the development over time of local expertise on landscaping infrastructure (through past projects) as well as the strengthening of farmers' capacities and the transfer of knowledge acquired through experience (through peer farmers) also facilitate a highly effective adoption and highly successful replicability of these techniques. This was illustrated in particular by studies conducted in recent years through satellite images on the development of ANR in some areas of Niger, where a large portion of the surface area was placed under ANR after the project's intervention, having been adopted and replicated by small-scale farmers. It should also be noted that ANR involves the restoration of a perennial plant cover, albeit managed (pruning, collection of non-timber forest products, firewood, etc.).

Sensitisation and inclusion of environmental and climate dimension in communal development plans (CDPs). The integration of the environmental and climate dimension in the CDPs and the involvement of the technical services in the exercise will enable all of these stakeholders to become familiar with the interventions related to adaptation to climate change and the environment. Thus, the communes will plan these activities more systematically, with a possible upscaling by the communes, or even at the "supra-communal" level of this type of activity proposed by the programme. Moreover, awareness activities among the populations through a participatory mapping, as well as the creation of groups (Water Users' Associations, Management Committees, etc.) that are trained on natural resources management (NRM) will guarantee the sustainability of all interventions involving the project's stakeholders.

The watershed landscaping infrastructures consist of masonry or dry stone works. They are durable by nature, and remain visible many years after the project, but require regular maintenance. The land rehabilitation activities whose purpose is to reconstitute the vegetative cover, increase the land value. These activities also require some maintenance. Capacity building of the Water Users' Associations will ensure that the beneficiaries understand the importance of the investment and assume routine maintenance of upstream infrastructures in a context of an increasing water stress, thus contributing to ensure their durability. This durability will be even stronger if the selection of the intervention areas and the contracting firms will be rigorous and participatory during programme execution.

More generally, the establishment of Management Committees and Water Users' Associations for each of the programme's infrastructures, their sensitisation on environmental and climate issues, and the support provided so that these groups can earn income from these infrastructures will systematically contribute to the ownership and thus the sustainability of the Programme.

The environmental observation planned within the framework of the Programme directly relies on the review of results approach. The data collected will be shared systematically with all stakeholders (local and national), and the programme will collaborate in particular with the AGRHYMET Regional Centre, which has capacities for managing environmental monitoring systems. This set-up will also provide factual information on the sustainability of some ProDAF interventions.

Strengthening institutional capacities starting from the national level (i3N) and including the management of environmental and climatic constraints in local planning processes will allow for local scaling-up of the programme's activities. This will require the identification of local issues or proven techniques in the commune area. Conducted in 22 EDC targeted by the programme, this work will also serve as a demonstration, thus facilitating the replication of the approach in other communities beyond the scope of ProDAF.

The dissemination of cropping technical skills (rainfed crops) that are better adapted to climate change impacts and allow better returns is based on low-cost techniques that have already been proved effective in terms of post-project replication in other areas in Niger. A similar trend is expected in ProDAF, which implements proven techniques at a

very ambitious scale. The collaboration with farmers' organizations and regional chambers of agriculture provided for in the programme will be valuable because they are key actors in the field, particularly as regards access to quality seeds or technical advice.

Finally, the important farmers' field school activity within ProDAF and the study tour activities in the area will enable "local champions" to emerge and the expansion of a local, informal technical network in terms of farming adapted to climate change. These activities will serve as case studies for other farmers within the framework of future projects or voluntary action. The highly dynamic small-scale farmers of the programme area will be supported (input vouchers) in dedicating their time to disseminated innovative activities and improving them. ProDAF's knowledge management mechanism will facilitate the identification of such potential, particularly through its scientific partnerships. The monitoring of expected results of the observation system for identifying the most effective activities will also be used as an advocacy tool to implement ProDAF-like activities.

A.2. Child Project? **If this is a child project under a program, describe how the components contribute to the overall program impact.**

The Food Security IAP programme is designed to contribute to the long-term vision and strategy of the GEF 2020 (GEF/C.45/03) of achieving an impact on the global environment by strategically investing in solutions that target the underlying causes of environmental degradation. As a result of this, the GEF seeks to prioritize the management of natural capital (soil, water, plants and genetic resources) in the transformation of the agricultural sector to ensure sustainable food security in sub-Saharan Africa. This programme supports 12 countries in sub-Saharan Africa in the integration of natural capital and ecosystem services management through investments that aim at improving rural agriculture and food security. The programme adopts an approach that focuses on three areas: (i) engaging stakeholders across the public and private sectors to promote collective action and coherent policies; (ii) intensifying, diversifying and adapting practices for the large-scale transformation of agro-ecosystems; and (iii) evaluating impact in terms of sustainability and resilience in order to improve decision making in the agricultural sector and their consequences in terms of food security.

The GEF-IAP/ProDAF will focus its intervention by aligning on the three Food-IAP components, by:

(i) Providing institutional support to the national initiative on food security and resilience (initiative 3 N, les Nigériens Nourrissent les Nigériens): institutional support to the High Commission for the Government's 3N initiative "Nigeriens Feed Nigeriens" by making available USD 600,000 in funds through a collaboration agreement, which will be renewable annually. This funding will both strengthen the monitoring and evaluation system of the HCi3N and improve capitalization and knowledge sharing by the HCi3N[13].

(ii) Scaling up the following integrated approaches for sustainability and resilience: (a) consolidation and development of 4,093 ha of watershed that will help protect the downstream structures and restore the water resources; (b) strengthening of exploitable surfaces through the construction of 12 small weirs for water mobilization (840 ha developed) and the establishment of live hedges for the protection of 400 ha; (c) protection of ecosystems allowing for the development of resilient, income-generating activities (four ponds created and 2,500 ha of passage corridors established).

(iii) Monitoring and assessing ecosystem services, global environmental benefits and resilience through: (a) use of geolocalisation, NDVI and ground truthing missions for land and water rehabilitation; (b) geolocalisation, NDVI, yearly supervisions, as well as periodic soil analysis to show biomass return and ecosystem resilience; (c) correlation between rainfall and NDVI to demonstrate the resilience of the farming systems; (d) IFAD RIMS

[13] Strengthening of the HCi3N monitoring and evaluation mechanism through the acquisition of equipment to develop a database on food security, the preparation and publication of a database indicators abstract and the regular updating of the database; providing operational training sessions per region for actors involved in this mechanism; organizing good practice capitalization workshops in each ProDAF intervention region (followed by good practices broadcast to wide public; the set up and management of documentation and information centres/libraries on sustainable land management in eache region of intervention; the linkages between i3N and the multiactor regional platforms on SLM through support to 2 technical comittees in each region; and building ties with two other IAP-FS projects (Senegal and Burkina Faso) with which exchange visits will be organised, as well as two regional exchange workshops on lessons learned in family farming.

survey to assess food security (lean periods and malnutrition); and (e) remote sensing and ExAct tool to assess (More detail in C. Budgeted M&E plan).

Effective knowledge management is a core leveraging mechanism of the Program and the Regional Hub Project to achieve up-scaling of integrated natural resources management approaches at multiple scales. Knowledge management will receive support under component 1 of the regional Hub and its outcome on establishment of the SPI to enhance linkages between science, policy and practice, under component 3 of the regional Hub on monitoring and assessment to ensure feedback of lessons to policy makers at national and regional level on what works and what does not, and under component 4 of the regional Hub on dissemination of programme results and communication and advocacy. The Program will also learn from other ongoing GEF and non-GEF supported initiatives, such as the World Bank/GEF Sahel and West Africa Program in support of the Great Green Wall; the FAO/GEF Decision Support for Mainstreaming and Scaling up Sustainable Land Management project that builds on the LADA/WOCAT approach; other GEF programmatic approaches, such as the PRC-GEF Land Degradation Partnership. For example, WOCAT offers a suite of tools that can be used for assessment, documentation and dissemination of best practices in natural resources management that have already been used by TerrAfrica and the PRC-GEF Partnership, and these tools have recently been adopted by the UNCCD for SLM best practices reporting.

The Regional Hub Project will adapt existing tools to the needs of the program and make them available in a user friendly format to all participating countries. The regional project will also provide training and capacity building in the application of the tools to ensure consistent quality, reporting and dissemination of new knowledge generated, lessons learnt and best practices.

IFAD's knowledge management package and project communication guidelines will be used to define: (i) communications objectives; (ii) target audience – primary and secondary; (iii) key messages per target audience; (iv) communications mix – e.g. press, online, TV, advertising, print, PR, events; (v) promotion; (vi) budget; (vii) timeline; and (viii) branding. See Appendix 6.3 for the project's draft knowledge management and communication plan.

In the context of the Integrated Approach Pilot, the Niger Child Project will develop strong links both with the overall Hub project and other IAP projects in the subregion (notably in Burkina Faso and Senegal). These ties will mainly focus on three areas:

(a) Exchange visits and training. Coordination will be established with the regional project. Programme stakeholders and key institutions in Niger will benefit from training opportunities and sharing of data/information on resilience and food security.

(b) Exchanges and knowledge management. Accordingly, the Programme will share data, case studies and lessons learned with the regional project to serve other projects. At the same time, it will benefit from the results that will be provided by other participants in the cross-cutting project. This exchange will allow to learn and test innovations that will strengthen the implementation of the theory of change of this GEF financing in Niger.

(c) Monitoring and evaluation. The Programme will provide the necessary data to ensure that these results and outcomes are shared and communicated.

During the start of the GEF/IAP-ProDAF, a detailed hybrid work plan will be developed at project level (by the project teams) with the crosscutting regional project to integrate activities where synergies will be possible. This work programme will be integrated in the AWPB of the Programme and included in the agreements planned by the programme.

The project contributes to the overall programme by aligning on its objectives to increase food security through sustainable ecosystem management and the reinforcement of national institutional capacities. Likewise and by contributing directly to the national i3N strategy (the Nigeriens feed the Nigeriens), the programme will enable for the Government of Niger to better master the linkages between sustainable ecosystem management and improvement of food security and resilience.

***A.3. Stakeholders.* Identify key stakeholders and elaborate on how the key stakeholders engagement is incorporated in the preparation and implementation of the project. Do they include civil society organizations (yes ☒ /no☐)? and indigenous peoples (yes ☐ /no☒)? [14]**

The implementation of ProDAF will largely rely on the capacity building and partnership with civil society organizations: in particular 22 groups of Water Users' Associations will be supported (one for each watershed); the programme will also rely on peer to peer training and the use of local "agricultural extension services farmers groups" (GACAP). The social engineering approach on which the programme has been built is based on the animation and oganisation of all local stakeholders prior to any investment in order to ensure their involvement for a greater sustainability.

The programme will include capacity-building sessions of the Water Users' Associations on the issues of sustainable natural resources management and the implications of climate change on the availability and use of water resources. This sensitisation will be complemented by training on the maintenance of the infrastructure works built by the programme (weirs, infiltration and anti-erosion works, etc.) and on the importance of their maintenance to improve access to water. The support to the Water Users' Associations is key for the sustainability of the programme's outcomes.

The local authorities (mairies) and regional councils will be supported in order to play their role in project management (updating the communal development plans, participation in planning mechanisms). In particular, the inclusion of the climate dimension in local planning documents allows to internalize the management of climate risks in local governance. ProDAF will support the revision of 30 communal development plans (two per year and per region for five years). The implementing partners will be the District technical services.

GEF activities under ProDAF will strengthen the resilience of over 22,400 households, or close to 157,000 people (including 30% women and 30% youth), as shown below.

SUMMARY OF EXPECTED GEF FUNDED INTERVENTIONS WITHIN PRODAF

Activities		Number	Hectares	Total project realisations	GEF beneficiary households
Land management at the watershed level (upstream)	Mechanical rehabilitation of degraded land	2 093 ha	2 093	9 512 ha	6 930
	Protection of dunes around the basins	2 000 ha	2 000	2 000 ha	6 000
Sustainable strengthening of exploitable surface areas	Type 1 weirs	12 weirs	840	134 weirs	420
	Set-up of live hedges	400 ha	400	400 ha	360
Income generation through the restoration of degraded ecosystems	Establishment of passage corridors (fight against *Sida cordifolia*)	2 500 ha	2 500	2 500 ha	7 500
	Rehabilitation of ponds (fight against Typha)	4	400	4 ponds	1 200
Total		**-**	**8 233**	**-**	**22 410 households** **156 870 persons**

Appendix 1 of the design report provides further information on the gender and targeting strategy.

***A.4. Gender Equality and Women's Empowerment.* Elaborate on how gender equality and women's empowerment issues are mainstreamed into the project implementation and monitoring, taking into account the differences, needs, roles and priorities of women and men. In addition, 1) did the project conduct a gender analysis during project preparation (yes ☒ /no☐)?; 2) did the project incorporate a gender responsive project results framework, including sex-disaggregated indicators (yes ☒ /no☐)?; and 3) what is the share of women and men direct beneficiaries (women 30%, men 70%)? [15]**

ProDAF's main target groups are the vulnerable and moderately vulnerable family farms whose access to food security and markets remains unstable; women and youth constitute the majority of this target population. ProDAF targets extremely vulnerable households who are exposed to food, pastoral and environmental crises (12%). The program will

[14] *As per the GEF-6 Corporate Results Framework in the GEF Programming Directions and GEF-6 Gender Core Indicators in the Gender Equality Action Plan, provide information on these specific indicators on stakeholders (including civil society organization and indigenous peoples) and gender.*

[15] Same as footnote 8 above.

also put a specific emphasis on women and youth. Among youth , special attention will be given to young women. Women and youth will represent at least 30% of the beneficiaries.

All activities will follow the rules of gender and youth mainstreaming amongst beneficiaries, and particularly those dealing with Cash for Assets schemes and capacity building. Activities to improve producive assets (water, land) indirectly benefit the beneficiary's whole household. In this way, all the different stakeholders in the project area will be sensitised on environmental and climate change issues.

IFAD portfolio in Niger has undertaken a detailed study on gender issues prior to the design of ProDAF, the study was concluded with the preparation of a tailored gender strategy for the portfolio, which translate into ProDAF's gender priorities. All ProDAF indicators are disaggregated to identify the number of women and youth beneficiaries. ProDAF also includes a number of gender specific activities (related to food and nutrition security in particular), with a target of 1,350 women groups created/revitalized; 90 women food security reserves built/rehabilitated; and 15,360 productive kits distributed to women. Appendix 1 of the design report provides further information on the gender and targeting strategy.

A.5 Risk. **Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):**

The following risks and preventive measures related to the project's activities have been identified:

Risk	**Attenuation**	**Level**		
		H	A	L
Effect 1: The emergence of sustainable family farms enable local producers (women and youth included) to diversify their agricultural production, increase their productivity/yields, and their adaptation capacity to external shocks, more specifically to climate changes				
Political: political and security conditions deteriorate in the Programme area	The programme will develop its implementation strategy by relying on economic stakeholders that are both local (producers ; traders; etc.) and organized (SMEs; FOs; SMCs; etc.), as well as with local communities with the capacities to ensure the sustainability and continuity of the investments, especially in situations or periods of political/institutional crises. The operational framework relies on technical and operational capacities at national and local level.			X
Environmental: Climate hazards	The Programme will contribute: (i) to better forecasting climate change through the production and diffusion of weather information so as to prevent/anticipate crises (GIS/RS); (ii) to supply adapted technologies so as to improve the producers' resilience to the effects of climate change.		X	
Environmental: Reduction of the water table	The Programme will contribute to better following the level of the water table and its evolution thanks to the piezometric network. The information will be shared with the involvement of local technical assistance and water users associations for a better use and management of available water. The programme will also contribute to reloading the water table through a better mobilisation of rain water thanks to land and water management interventions in the catchment areas.		X	
Economic: coverage of renewal cost for infrastructures and irrigation schemes is decisive for the sustainability of small scale irrigation investments.	The increased access to bank services (savings accounts and financial education) and improvement of management skills for the entrepreneurs (business plans and technico-economic support) will contribute to the sustainability of investments for smallholder farming businesses.		X	
Social: The most vulnerable beneficiaries can undergo crises related to climate shocks.	The programme will help forecast, absorb and respond to shocks through an increased resilience of vulnerable households to climate change, and through support to the social safety nets programme (Cash for Work; GFS; nutritional education; reconstitution of cattle; micro projects; etc.)		X	

A.6. Institutional Arrangement and Coordination. **Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.**

The lead agency for the project is the Ministry of Agriculture and Livestock. A Project Steering Committee (PSC) is in place and has the primary responsibility for guiding project activities, approving Annual Work Plans and budgets. The programme has three autonomous regional project management units (URGPs) and is technically supported by the National Advisory Assistance Unit (CENAT) based in Niamey/Maradi. No specific GEF staff has been planned.

Within the ProDAF framework, the implementation strategy related to the management of the natural and environmental resources is based on a watershed basin approach, with a focus on on-site activities with a highly productive potential. To ensure the sustainability of soil and water conservation (SWC) and natural resources management (NRM) activities, a three-year activity plan will be adopted (implementation, consolidation of lessons learned) and, as a preliminary action, the land status of the sites clarified prior to any intervention. The anti-erosion activities will be implemented according to the downstream investments in order to maximize the impact and sustainability of the works linked to climate change adaptation and the environment. In light of the weak human and technical capacity of the private operators such as Groupement Service Conseil (GSC, Advisory Service Group) and NGOs, the communal environmental technical services (which are now present in all the communes) will be solicited more for the activities, such as the preparation of microprojects, awareness raising and training, as well as for their role in advisory support and quality assurance.

Management of funds:

- CENAT: will be responsible for the execution of the Financing Agreement. WAs (based on justification of 80 per cent of the previous advance) and direct payments are prepared by CENAT and submitted for approval to the Ministry of Finance and sent to IFAD through the selected channel. Funding for the programme will be justified in accordance with the financing agreement signed between the Government of Niger and the GEF (and between the Government of Niger and other donors (IFAD, the OPEC Fund for International Development, or OFID);

- at the regional level: each URGP will open an operational account per donor in a commercial bank to receive the various funds for financing activities based on the AWPBs and interim progress reports. These accounts will be managed by the Regional Coordinator and the Administrative and Financial Manager of the URGP. Every three months, the supporting expenditures documentation is prepared by the URGPs and sent directly to the CENAT, which will consolidate ProDAF's financial report in line with each financing agreement.

Rehabilitation of degraded land upstream of the watershed basin. By building on the experience of PASADEM (see above), the land rehabilitation activities could be carried out through a renewed partnership with World Food Programme (WFP) in the form of *Cash for Assets* in community sites whose land tenure status will have been clarified. Consistent with the approach capitalized on by the GEF/PASADEM, each activity will be carried out following: (i) a participatory self-targeting (village assemblies) of the most vulnerable beneficiaries (with 30% women and youth); (ii) training sessions to ensure the technical quality of the works and a good understanding of why the structures are needed (ownership); (iii) a participatory identification of areas to be treated in line with the morphology of the watershed basin, the nature of the soil, the already known erosion constraints, the downstream activities; and (iv) in cooperation with local organizations, including land commissions (COFO) (land status of the intervention areas, conflicts of interest) and Water Users' Associations (durability and maintenance of investments).

To ensure the sustainability of these investments, watershed maintenance committees will be set up in cooperation with the Water Users' Associations of each watershed thus rehabilitated. These committees will be responsible for the preservation of the works and the sustainable use of its by-products (fodder, fruits, leaves, bird fauna, etc.). These Management Committees will benefit from training on climate change adaptation organized for 20 Water Users' Associations.

Treatment of watersheds basins against erosion and run-off water. Like the land rehabilitation activities, these activities may be carried out in partnership with WFP through its "Cash for Assets" approach. They will cover community lands with a medium to steep slope. The training of Water Users' Associations on the issues of works maintenance will contribute to the sustainability of these works, which are directly linked to water management (groundwater recharge and fight against water erosion).

Lateral water-spreading weirs. This action is an upscaling of projects conducted in Tahoua Region by the German Agency for International Cooperation (GIZ). The technical expertise available in Niger allows to build excellent quality works. Within the project it is planned to construct weirs that will enable to cultivate recession crops on about 70 ha and larger weirs on 150 ha. Given the financial investment and the gain in agricultural value of the project area, these works involve: (i) technical feasibility studies, particularly in terms of the geological properties of the areas considered for the works (in order to ensure stability of the works and a better water retention in time); (ii) clarification of the land tenure issues in order to avoid subsequent conflicts of interest (land grabbing, exclusion, etc.); and (iii) the establishment of commonly agreed on and effective user rules to avoid conflicts, particularly with regard to access to water for agriculture and livestock.

Rehabilitation of ponds. The works will be carried out around **four ponds** through the use of high-intensity labour recruited locally and remunerated on the basis of the Cash for Assets approach. To ensure the sustainability of these investments, the production basins' maintenance committees will be linked to the Water Users' Associations of each rehabilitated pond, thus ensuring the sustainable use of these ponds, with the possible development of income generating activities as capitalized by the GEF/PASADEM. These committees will be responsible for ensuring the preservation and maintenance of the works as well as the efficient use of their by-products (compost). The ponds are under the public domain up to a 25-m strip beyond the highest water. For interventions beyond this threshold, the communes will be more involved. For the waterworks maintenance, maintenance teams for water mobilization facilities were established under previous projects, particularly in Tahoua Region. Based on this experience, ProDAF will allocate these works to the Water Users' Associations that will be created for each work. The implementing partners of this component are the communes, the specialized service providers, SMEs/Public Building and Works, and the consulting offices as well as regional and departmental services for waterworks, rural engineering and the environment, the Regional Agriculture Chambers (CRAs) and the Water Users' Associations. The CRA/specialized service providers must facilitate the set-up of the maintenance system together with the Water Users' Associations, who will supervise the works under the project management of the communes.

Establishment of pastoral passage corridors. These works will be carried out in consultation with the local populations and institutions, including the Land Commissions, in line with the approach of current and past projects (Project for the Promotion of Local Initiatives for Development in Aguié-PPILDA, and PASADEM). This action will also widen the target group beyond the agricultural populations.

Building farmers' capacities in agricultural practices that are resilient to climate change through farmers' field schools (ASAP and IFAD financed). The training of trainers will involve 3-4 facilitators per commune, i.e. at least 180 people. It will be organized into two training sessions for each region. The sessions will be organized in years 1 and 2 of the programme. Refresher courses are planned for year 5. The teaching materials will be developed in year 1 and an update is planned for year 6. **The Open Days** will be organized by the federation of farmers' organizations for a wide dissemination of results of the FFSs: each meeting will last one day and will bring together 1,000 farmers from at least ten villages. **Exchange trips among FFSs** will be organized for around 30 farmers from at least 15 FFSs, who will go to the Maradi, Tahoua and Zinder area in order to visit the best performing FFSs and to share their experience with other promoters. **National study tours** will also be organized, consisting in trips of a maximum of five days in order to allow FFS farmers to discover new technologies or innovations in similar ecological areas, and above all, visit the exemplary sites whose lessons learned are the cornerstone of ProDAF (in Aguié or Tchadoua, for example). These missions will involve ten farmers and their supervisors, and will be proposed each year.

Dissemination of practices at a large scale: assisted natural regeneration (ANR) (ASAP and IFAD financed). The dissemination activity of the ANR practice will combine technical training for rural farmers and the dissemination of small equipment for the respective practice. According to the data from IFAD projects in Niger and available literature, the estimate of the total implementation cost is USD 15/ha (training + equipment).

Institutional support to the HCi3N. The funding of this activity will be made available to the HCi3N through a renewable three-year collaboration agreement and whose costs will be confirmed following an evaluation of deliverables.

Appendix 2 of the project design document provides additional details on Institutional Arrangement and Coordination.

Additional Information not well elaborated at PIF Stage:

N/A

A.7 *Benefits.* Describe the socioeconomic benefits to be delivered by the project at the national and local levels. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

The financial profitability of agricultural activities was evaluated on the basis of: (i) rainfed crops budgets (millet, sorghum, cowpeas and groundnuts); (ii) horticultural crops budgets (tomato, onion, cabbage, sweet potato); and (iii) the farming systems (rainfed and irrigated systems). In addition, analyses and forecasts of climate change impacts in the "without project" scenarios have also been taken into account. In particular, the International Food Policy Research Institute's (IFPRI, 2013) estimates that, in 2050, most of Niger's cereal production will experience a 5 to 25 per cent drop in yield and contraction of the land area suitable for these crops. In the case of the rainfed crops, the additional gross margin amounted to CFAF 17,895 for farm households practising millet/cowpea associated cropping, CFAF 9,418 for those practising millet/sorghum/cowpea associated cropping, CFAF 21,629 for those practising millet/groundnut associated cropping and CFAF 26,097 for those practising pure millet cropping (assumption of 1.5 ha per household). In the case of horticultural crops, with over 5,000 ha of developed sites in the valleys (sites developed around the mini-dams and ponds), the households will earn a gross margin of between CFAF 267,500 and CFAF 433,500 (assumption of 0.25 ha per household). These results show that the farmers can meet the additional expenditures required for the implementation of improved agricultural techniques and earn additional income, and thus meet other operational costs. A financial internal rate of return (IRR) and the net present value (NPV) were also calculated to measure the profitability of productive micro-projects (equipped with "motorized pump kits", irrigation networks and borehole). The ex-ante findings suggest profitable operations, with positive NPVs and IRRs ranging between 19 and 47 per cent. The IRRs vary between 36 and 66 per cent when the post-financing cash flow analysis is performed based on ProDAF financing mechanisms (grants, contributions, loans), which demonstrates the feasibility and profitability of the model.

A.8 *Knowledge Management.* Elaborate on the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives (e.g. participate in trainings, conferences, stakeholder exchanges, virtual networks, project twinning) and plans for the project to assess and document in a user-friendly form (e.g. lessons learned briefs, engaging websites, guidebooks based on experience) and share these experiences and expertise (e.g. participate in community of practices, organize seminars, trainings and conferences) with relevant stakeholders.

The GEF-IAP financing will improve the capitalization of good practices and their dissemination. A good practice capitalization workshop will be organized in each ProDAF intervention region, following which good practices will be widely disseminated and accessible to wide public (three kinds of multimedia broadcasts). These good practices may have been subject to preliminary studies.

Furthermore, in continuation with GEF/PASADEM activities, which had supported the Regional Directorate of the Environment (DRE) to set up and manage a documentation and information centre/library on sustainable land management, the HCi3N, with GEF-IAP funding, will continue to support this documentation centre in Maradi Region, and create and support documentation centres in Tahoua and Zinder Regions. These public centres will highlight in particular the documentation produced by the HCi3N and its partners (good practices capitalized on).

The GEF/PASADEM had supported the establishment of a multi-actor sustainable land management platform in Maradi Region, chaired by the Governor and led by the Regional Directorate of the Environment (DRE). The platform had been successfully linked with the HCi3N Technical Group on sustainable land management in the Maradi Region. In line with the lessons drawn from this experience, the HCi3N will promote, through the GEF-IAP financing, the facilitation of six regional technical committees, i.e. two per intervention area (including the multi-actor regional platform of Maradi).

Finally, in order for the HCi3N to be integrated into the subregional dynamics of Food Security GEF-IAP programme, it will make best use of the funds received to organize two regional exchange workshops on lessons learned in family farming with key actors involved in the other two subregional GEF-IAP projects (in Burkina Faso and Senegal). An exchange trip in each of these two countries will also be organized. These workshops and exchange visits will give national and subregional visibility to the HCi3N, especially in the preparation of policies taking into account lessons learned from interventions of the HCi3N partners in the sectors of environment and food security.

B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 *Consistency with National Priorities*. Describe the consistency of the project with national strategies and plans or reports and assessements under relevant conventions such as NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.:

The policy framework and national development strategy is governed by the **Economic and Social Development Plan (PDES)** 2012-2015 and the **3N Initiative (the Nigeriens Feed the Nigeriens)**. The PDES highlights the potentially disastrous effects of environmental degradation and climate change on agriculture, livestock and health sectors and the threat posed by these constraints on efforts to reduce poverty. It refers to the adaptation to climate change as a "compelling need", especially to conserve and sustainably manage environmental resources on which food security and livelihoods of the population depend. The proposed GEF project will contribute largely to priority investments falling within Axis 1 of the I3N, namely the increase and diversification of agro-forestry- pastoral and fish production, including sustainable land and biodiversity management. Also by supporting the 3N initiative and its acceleration plan, and using it as an entry point and a driver for the promotion of resilient and sustainable land management practices, this GEF will directly support government priorities and national strategies and policies. The project will also support the capacity of CNEDD to contribute to better alignment of objectives and linkages between operations and national programming and monitoring frameworks.

The national policies and strategies related to the environment stem from the **post Rio conventions** (United Nations Framework Convention on Climate Change, Convention on Biological Diversity and the United Nations Convention to Combat Desertification) and from various international treatees signed and ratified by Niger, such as the convention on wetlands (Ramsar convention), ratified by Niger in 1987.

The environmental policy in Niger is driven by the **national environmental plan for sustainable development (PNEDD)** adopted by the Government in 2000 and constituting the Agenda 21 of the country. It aims to (i) implement enabling conditions for food security and economic development through a more rational management of natural resources in line with the prevention of desertification; (ii) integrate environmental issues in the definition of policies, programmes and projects; (iii) encourage the implication, responsibilisation and participation of local populations in managing both their living environment and natural resources. The PNEDD is composed of 6 prioritary programmes including the *national action programme to combat desertification and manage natural resources* (PAN/LCD/GRN); the *programme on climate change and variability*; the *programme for the management of biological diversity* and the *programme water and sustainable development*.

In terms of **climate change** and variability, the Government has prepared a **national strategy and its action plan (SNPA/CVC)**, adopted in 2003. The strategy and its action plan identify water, agriculture, livestock and forestry amongst the socio-economic sectors most vulnerable to climate change, and propose a series of measures and actions to be taken to promote adaptation and improve resilience in these sectors.

The **National Action Programme for Adaptation (PANA)** adopted in 2006 presents priority actions to be taken to face the needs and immediate and urgent preoccupations to adapt to adverse impacts of climate change. These activities are in line with the dispositions of the post-Rio conventions ratified by Niger, and concern the sectors of agriculture, livestock, forestry, food security, water resource management and health. The GEF funded “PANA resilience project” implements a number of activities based on the PANA and aiming at improving the resilience of the agricultural and water sectors. In 2007, Niger also developed a national capacity building strategy to manage the national and global environment.

A **national policy in terms of climate change** has been validated in 2013, defining objectives in terms of adaptation and attenuation and describing 7 axis of orientation related to these objectives. ProDAF activities especially contribute to the second axis: “adaptation capacity building and development for local populations and for the resilience of ecological, economic and social systems to climate change”; to the fourth axis: “integration of the climate change problematic in national, regional and local planification tools” and axis 5: “stakeholders capacity building”.

Further to the conference of the parties in Paris (COP 21), Niger drafted the **Intended Nationally Determined Contribution (INDC)** in 2015, defining objectives in terms of attenuation as well as adaptation. ProDAF will

contribute directly to the national objectives in terms of adaptation (food security; fight against poverty; efficient natural resources management; improved resilience of populations and ecosystems; etc.) by developing a number of the identified adaptation measures defined under the strategic framework for sustainable land management (CS-GDT; 2015 2019): land rehabilitation; natural assisted regeneration, dune fixation, live hedges, pastoral corridors seeding, etc.

Finally, the **action plan for the management of agricultural risks (PAGRA)** 2014-2023 constitutes the operational declination of the i3N, especially in terms of "stabilizing" food security. The first component focuses on the resilience of agricultural production systems, and advocates: (i) the use of species and varieties with high yields and drought resistance; (ii) the implementation of soil and water conservation techniques and of soil defense and restauration techniques; (iii) the increased use of irrigation with partial to full control of water; (iv) the prevention of epizootic diseases, the establishment and sustainable management of pastoral land as well as the development of fodder crops.

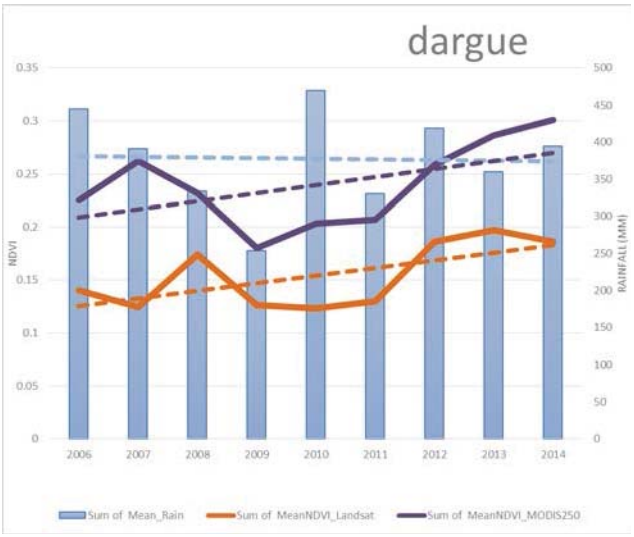
The preparation of the second edition of Niger's ***Stratégie Nationale et Plan d'Actions sur la Diversité Biologique***, adopted in 2014, was guided by the objectives of the Strategic Plan for Biodiversity (2011-2020) and the National Plan for Social and Economic Development (2012-2015). Niger has undertaken measures to mainstream biodiversity, integrally or partially, in several additional planning frameworks, including the National Environmental Plan for Sustainable Development. Gender consideration is set as a principle in the new NBSAP. A decentralized bottom-up approach to implementation is being promoted. It is anticipated that the main impact of implementation will be a reduction in the level of poverty for Niger's population. The revision contains 5 strategic objectives that have been mapped to the Aichi Biodiversity Targets: i) conserve and sustainably exploit ecosystems, species and genetic resources; ii) reduce various forms of pollution; iii) improve and develop tools for managing protected areas; iv) take into account biodiversity in policies and strategies; v) address the effects of climate change. Eighty actions have been formulated, along with associated responsible actors, indicators, verification sources, costs per year (including funding gaps), hypotheses and risks. The total estimated cost of NBSAP implementation to 2020 is FCFA 420 647 660 000. Needs regarding capacity-building and access to technologies for implementing the new NBSAP have been identified, as have activities required to increase levels of communication and public awareness. Niger intends to adopt a system for monitoring and evaluation based on the principles of Results-based Management (RBM). Through its climate-smart actions on sustainable ecosystem management (SLM practices and land rehabilitation enabling the return of vegetation and hence of traditional fauna and flora) and protection (pond protection/rehabilitation in three Ramsar sites and establishment/rehabilitation of passage corridors both including actions against invasive species), the GEF-IAP project will contribute directly to the three out of five of the NBSAP objectives (*i) conserve and sustainably exploit ecosystems, species and genetic resources; iii) improve and develop tools for managing protected areas and v) address the effects of climate change*)

In terms of its objectives as well as of its finality, ProDAF perfectly integrates these policies, and contributes to their strategies and action plans as defined by the government of Niger.

C. DESCRIBE THE BUDGETED M &E PLAN:

ProDAF Monitoring and Evaluation activities will enable the monitoring and assessment of the following elements (the various mechanisms are described further in the present section):

- Land and water rehabilitation will be monitored through the geolocalisation of the sites and following of the return of biomass/elimination of weeds using remote sensing. Ground truthing missions will be carried out on a yearly basis (Supervision missions). At mid term and completion, a biomass assessment will be carried out by the Regional Livestock Directorates (previous experiences in the project).
- Sustainability of ecosystems will be monitored through the assessment of improvement and rehabilitation of biomass return (see above) and stakeholders engagements (to grant the sustainable management of the rehabilitated sites). Yearly supervision missions will also carry out evaluations of the sustainability of the ecosystems. At mid term and completion, the project may carry out soil analysis to estimate the soil quality (texture, organic matter, minerals, etc.)
- Resilience of farming systems will be monitored through the geolocalisation of the project sites, and analysis of NDVI and rainfall correlated trends to demonstrate how land rehabilitation makes ecosystems depend less on rainfall for biomass production (the graph below illustrates such analysis conducted in Niger: the site of Dargué was rehabilitated in a previous IFAD/GEF project between 2009 and 2012; data analysis shows that in a year with limited rainfall such as 2013, the biomass production is higher than in a year with higher rainfall (2007) before rehabilitation).



- Impact on food security will be assessed through the IFAD RIMS survey (baseline, mid term and completion), which evaluates the duration and repetition of lean season (in months) as well as the malnutrition of children in the project area.
- Carbon storage will be assessed using both the ExAct tool and remote sensing.
- Rehabilitation of Ramsar sites will be evaluated using remote sensing and ground truthing missions, as mentioned in the first bullet point.

The links between ecosystem services, productivity, livelihood and food security is at the basis of the IAP-FS approach and reflected in the Niger project as described in the below matrix :

Actions taken by the project at ecosystem services level	Resulting impact on productivity	Resulting impact on livelihoods	Resulting impact on food security
Dissemination of ANR in agricultural parcels	The integration of ANR in productive systems has demonstrated its relevance through both the reduction of sowing (from 3-5 sowing without ANR to 1-2 sowing with ANR) and a net yield gain of 30 to 220 kg/ha for millet depending on the age of the ANR	Increased yields with less inputs enable to both produce more and save money on inputs (seeds). ANR also allows to generate non-farm income through the collection of wood from pruning the tree of the plots. The additional income enables the household to achieve a better standard of living.	With an increased cereal production and additional income (savings on sowing and wood sales), the household has more food on the table and can thus achieve greater food security (shorter lean season and lower malnutrition rates)
Land rehabilitation techniques (SLM such as half moons, stone lines and planting pits) in **agricultural** sites enable the return of biomass due to improved soil (from barren land to cultivated sites)	Cereals can be produced on the sites where nothing grew. Association of SLM techniques have shown to enrich soil in fine elements and silt and organic matter by 20 to 30 per cent as application and increase in sorghum yields of +29 kg/ha to + 647 kg/ha (IFAD/PDRD, 2014)	The additional income (selling the extra production) enables the household to achieve a better standard of living.	With an increased cereal production and additional income, the household has more food on the table and can thus achieve greater food security (shorter lean season and lower malnutrition rates).
Land rehabilitation techniques (SLM such as half moons, stone lines and planting pits) in **pastoral** sites enable the return of biomass due to improved soil (from barren land to cultivated sites) Fight against the invasive species *Sida cordifolia* on pastoral land enable the return of usual fodder grass where only Sida cordifolia grew	Fodder can be produced on the sites, and the fodder can be used to feed small livestock	The additional income (selling fodder and small livestock) enables the household to achieve better standard of living.	With an livestock cereal production and additional income (selling fodder and small livestock), the household has more food on the table and can thus achieve greater food security (shorter lean season and lower malnutrition rates).
Fight against the invasive species Typha in Ramsar ponds identified by the project enable for these ponds to be valued both for irrigation and fish farming.	Development of fish farming and improved irrigation.	The additional income enables the households to achieve a better standard of living.	The increased vegetable production (irrigation) and fish production enable to diversify the diet and improve food security (shorter lean season and lower malnutrition rates).

Geolocalized environmental monitoring system. The ProDAF activities contributing to improve the resilience of farming systems (financed or co-financed by GEF) will cover several tens of thousands of hectares. In this context, it is planned to set up an innovative system for geolocalized environmental monitoring (ASAP-financed) to observe the achievements and results of actions to improve water infiltration, the fight against erosion and the development of agricultural practices that are more resilient to climate change. This tool enables to monitor all programme activities, which is vital to the success of the Programme implementation and knowledge management with regards to the magnitude of the investments planned by ProDAF.

Strengthening HCi3N Monitoring and Evaluation Mechanism. The GEF-IAP funding will strengthen the HCi3N monitoring and evaluation mechanism through the acquisition of equipment to develop a database on food security, the preparation and publication of a database indicators abstract and the regular updating of the database. The data collection system will be strengthened by the set-up of a monitoring and evaluation mechanism in each area of intervention, data collection field missions, as well as quarterly monitoring and supervision missions in each region.

Beyond an operational data collection, archiving and analysis system, the HCi3N monitoring and evaluation mechanism will be strengthened through operational training sessions per region for actors involved in this mechanism, with two workshops on GIS and six workshops on geolocalization. In addition, there will be six workshops with regional

actors/partners on various themes (integrating nutrition, results-based management of the HCi3N database, carbon footprint, etc.) to harmonize measurement methods of the selected indicators.

Scientific partnerships. To capitalize on the Programme achievements and to identify or introduce innovative practices, the programme will partner with local research institutions and centres of excellence within the framework of the action-research agreement with the National Institute for Agricultural Research of Niger (INRAN), ICRISAT (issues concerning agricultural practices and innovative plant material) and the AGRHYMET Regional Centre (observation and management of climate risks). These agreements are funded through the ASAP grant. As a result, it will be possible to improve or develop innovative practices throughout the programme and to obtain scientific studies and publications that could serve as technical and scientific references on agriculture practices in climate change resilience in dry areas.

Use of the Ex-ACT software. The monitoring and evaluation of ProDAF will be provided with the Ex-Ante Carbon footprint Analysis Tool (Ex-ACT) software, developed by FAO, to appraise the carbon footprint to monitor the impact related to ProDAF activities. Project officers will be trained to use the software within two sessions. The tentative carbon footprint of all ProDAF activities show a mitigation potential of (-) 5.40 t CO2-eq per hectare in 20 years, i.e. an annual balance of (-) 0.27 CO2-eq per hectare per year. Given the value of a "social price" (on the basis of Intergovernmental Panel on Climate Change estimates), the additional quantity of sequestrated carbon per hectare per year could be accounted for in the economic cash-flow of ProDAF.

IFAD's Results and Impact Management System (RIMS) impact surveys and additional surveys on outcomes/ impact will also be conducted during the implementation of the project. The leftover PPG budget will enable the early realisation of a specific GEF baseline.

Project's Indicative Monitoring and Evaluation Work plan

Activity	Responsibility	Budget in USD	Additional information
Geolocalized environmental M&E system	IFAD; PMU	1,180,145	-
Strengthening HCi3N Monitoring and Evaluation Mechanism	HCi3N; PMU	121,776	Database equipment (hardware) ; indicators list ; data collection ; SASE-i3N database update; implementation of regional M&E units; follow-up and supervision of regional coordinations
HC3N capacity building	HCi3N; PMU	280,540	Operational regional workshops : training on GIS and geolocalisation ; operational regional workshops (nutrition, results based management, 3N database, carbon balance, climate change, etc.)
Baseline study	PMU, IFAD	45,000	PPG
RIMS impact surveys and additional surveys on outcomes/ impact	PMU	446,345	IFAD financed
EX-ACT	PMU, FAO/other identified partner	65,042	IFAD financed
Action research and scientific partnerships (ICRISAT, INRAN, ETC)	PMU, ICRISAT, IRAN	65,571	ASAP financed
Action research and scientific partnerships (Agrhymet)	PMU, Agrhymet	85,277	ASAP financed

PART III: CERTIFICATION BY GEF PARTNER AGENCY(IES)

A. GEF Agency(ies) certification

This request has been prepared in accordance with GEF policies[16] and procedures and meets the GEF criteria for CEO endorsement under GEF-6.

Agency Coordinator, Agency Name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Margarita Astralaga, Director, Environment and Climate Division, IFAD	Chiara Loganda (O;C)	01 Aug 2016	Naoufel Telahigue, Environment and Climate Division, IFAD	+39 06 5459 2572	n.telahigue@ifad.org

[16] GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

The logical framework of the project can be found at pages *vii* to *x* of the PDR.

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Comments from Council at work program inclusion

GERMANY: The cited stakeholders in the chapter civil society and indigenous people are governmental organisations. Other stakeholders need to be identified.	Other stakeholders have been identified (small holders in rural areas, civil society organisations including in particular: Water User Associations and "agricultural extension services farmer groups" (see section *A.3. Stakeholders*)

Other general comments from council have been addressed at the Hub project level as per the table below:

IFAD response to Council comments relevant to the Regional Hub Project

Germany's comments:	**Response to Germany's comments:**
Suggestions for improvements to be made during the drafting of the final project proposal: *General suggestions:* 1. Land tenure issues are mentioned as major barriers for Integrated Natural Resources Management (INRM) in certain contexts but the programme does not address these. It is recommended to support ongoing land policy reform processes where possible, particularly through capacity development of local level institutions. 2. Technical innovation needs to be fully adapted to physical and socio-economic conditions at target group level (critical example: Biogas in regions with extreme lack of biomass). Piloting exercises should as far as possible be redesigned in favour of broad application of simple technologies. Particular emphasis needs to be given to up-scaling of organic fertilization technologies and management of biomass. 3. Rain fed agriculture and upland parts of the landscapes need not to be neglected. Both, livelihood perspective and value chain approach can therefore be considered within the landscape framework. 4. Since the non-sustainable provision of wood energy is one important element of forest and landscape degradation and since wood energy plays a key role for food security, Germany suggests addressing this theme within strategies for food security. Existing good practices for sustainable wood energy production can be up-scaled within the project component "scaling up integrated approaches for sustainability and resilience" 5. Within its special unit *"One World, No Hunger"* the German Ministry of Economic Cooperation and Development (BMZ) has launched regional programmes to which synergies and linkages could be established. These are in particular: a. *Programme on soil protection and rehabilitation for food security* in Kenya, Ethiopia, Burkina Faso b. *Programme on Green Innovation Centres* in Burkina Faso, Ghana, Kenya, Nigeria, Malawi c. *Programme on food security and resilience* in Burkina Faso, Malawi, Kenya and Ethiopia 6. Strengthening evidence of the benefits of investment into SLM is a priority issue for monitoring and research and a key motivation for investing in SLM. This is the special focus of the Economics of Land Degradation Initiative (http://eld-initiative.org/) which is preparing also a regional approach in Sub-Saharan Africa. Links and synergies could be established. 7. The monitoring system which will be established within the	**1.** Indeed land tenure is mentioned as an issue for the program, and will be carefully considered relative to the context in each of the participating countries. The recommendation by Germany is therefore well noted in this regard. In addition, IFAD has produced new guidance material and will also refer to FAO's Voluntary Guidelines. **In the case of Niger, the clarification of the status of each site is required prior to investments.** **2.** Well noted. The 12 participating countries cover a diversity of proven innovations across a range of contexts, and some are already demonstrating upscaling in some cases. By demonstrating their effectiveness, together with the appropriate policy options, the program will emphasize upscaling of the most suitable and effective practices in each country. **Niger: The scaling-up approach adopted by the project requires for scaled-up innovations to have demonstrated their relevance and adaptation to the physical and socio-economic conditions of the project.** **3.** Well noted. The IAP is primarily focused on rain fed agriculture systems, including supplemental irrigation through practices such as water harvesting. The landscape approach is indeed important in this regard. Livelihood perspective and value chain approach will be emphasized in all the projects. **This is also the case of the Niger Child Project.** **4.** Well noted. Indeed the integrated approach is intended to address such links to maximize the potential for synergy in generating global environmental benefits. This will be a priority at all levels, and will be particular emphasized in projects where wood energy is major driver of degradation in the wider landscapes. **This has been taken into account in the Niger Child project, especially through activities related to Assisted Natural Regeneration**. **5.** Well noted. Germany has been an important partner in the drylands of Africa and as the IAP is essentially about (a variety of) partnerships, the experience of BMZ funded regional programs will definitely be considered. The suggested programs will be specifically engaged in each of the countries during the development of projects. **Niger is not covered by these programmes.** **6.** Well noted. Building an evidence base for more sustainable and resilient approaches to food security for smallholders is central to this IAP and is a focus of the component on monitoring and assessment. The ELD initiative is very useful

programme could be aligned with / made applicable for national monitoring systems, in order to establish / support long term monitoring of food security progress and resilience. 8. The planned budget of 35 to 120 Mio USD per child project is for the envisaged implementation period of 60 month quite high. Necessary ownership of land users for SLM needs to build up; capacities of implementing partners might not be sufficiently available and needs to build up. Were these aspects analysed and considered in planning? What are options to adapt budget planning if necessary (shifts between child projects, extension of project period)?	in putting these issues in the language of economics used by policy makers and therefore presents a timely opportunity for alignment. **Noted.** **7.** Well noted. The monitoring and assessment component of the program goes beyond normal project-specific M&E. This will bear in mind and where possible build upon national systems to ensure that this information is used and that the national system is strengthened. This will be the subject of a special technical workshop to be convened early in the design of projects. **Niger: Linkages with the National initiative "i3N" have been established in terms of monitoring food security progress & resilience.** **8.** Although the budget per project may seem high for a 5 year delivery, the GEF contribution is incremental to the total project cost and builds on existing ''baseline'' projects. The baselines investments are typically already well anchored in each country and thus provide a strong foundation for addressing the issues raised during development of the GEF project. The timeline for each project will be determined based on critical milestones to be established for the program. **The Niger portfolio has a record of excellent disbursement capacities. Regarding ownership, the whole approach of the project builds on social engineering with participatory inclusion of all stakeholders around project investments.**
U.S comments: 1. How will the child projects proceed without impacting forest and key biodiversity areas that will be opened or face pressure as a result of increased agricultural production? Will there be a broader framework developed to address this important issue? 2. How will processes be used to create viable and inclusive multi-stakeholder groups at both national and local jurisdictions?	**Response to U.S comments:** 1. The Program is promoting an approach of sustainable intensification, which will focus exclusively on existing agro-ecosystems. It is therefore a very low risk with regard to impact on forests and key biodiversity areas. The broader stakeholder engagement process will also ensure that this issue is addressed at all levels. **This is also the case for the Niger Child Project, in which activities focus on land recuperation, which enables return to fertility and production of barren land (due to desertification).** 2. The establishment of multi-stakeholder platforms, at various scales, as proposed by the US, is a focus of Component 1 of the program and we welcome the endorsement of this idea. The processes will be based on the context in each country, but assured through consultation with all relevant stakeholders. **This is also the case for the Niger Child Project: At national level, the project will work in synergies with the national "i3N" initiative with which ProDAF is fully aligned.** **At local level, the social engineering approach of the project will ensure viable, sustainable and inclusive engagement of all stakeholders within the project.**

Comments from the Scientific and Technical Advisory Panel

Comments from the STAP have been taken addressed throughout the project document and will be answered to in detail within the Hub Project as per below.

IFAD Response to STAP comments on the IAP-Food Security

1. Successful implementation of this integrated approach will require a cross-disciplinary analysis and new frameworks that address lesser-known issues relevant to sustainability and food security, notably resilience. STAP recommends the use of the RATA framework as a tool that can inform and link the three program componentsand strengthen the project's theory of change to bring about global environmental benefits.	The RAPTA (previous RATA) framework has been applied throughout the design of the IAP, at program level. The hub project will provide further training and capacity building in application of RAPTA as well as other resilience assessment tools, such as DATAR that is focused on enhancing resilience through a heuristic approach to sustainable use of biodiversity. **In the case of Niger, theory of change was built based on field assessment and the ASAP approach rather than on RAPTA, to ensure the best synergies within the project (bearing both GEF and ASAP funding).**
2. STAP believes it is important to consider and adopt consistent definitions of resilience and sustainability…..The RATA framework provides a thorough description of resilience and the relationship between resilience concepts and sustainability. STAP recommends using these terms as defined in the RATA technical report,	The RAPTA definitions of both sustainability and resilience are used in the Hub current project.
3. …the three components are linked in important ways. To demonstrate these important linkages, STAP recommends the project developers to detail further the following aspects: a. Describe the system. This includes addressing the following aspects: i)define the boundaries of the agro-ecosystem, including the biophysical and social factors; ii) describe the values that communities expect to get from the system(e.g. crops) and the drivers that affect, or might influence, these valued system properties (e.g. climate change) iii) define the governance levels (e.g. informal and formal arrangements); and iv) describe how the agro-ecosystem functions (e.g. describe the livelihood strategies and variables that control the system's outputs they value, for example grass cover, healthy soils) Steps i) through iv) should be synthesized to arrive at a conceptual model that characterizes the agro-ecosystem, and that is based on a shared understanding between stakeholders. STAP wishes to emphasize the importance of undertaking this analysis during the early design of the projects in order to assess effectively the resilience of agro-ecosystems, and the appropriate interventions to improve resilience. b. How will local knowledge and scientific knowledge be combined so they are mutually reinforcing in describing, monitoring, and assessing land degradation and environmental changes (e.g. climate risks) in ways that are pertinent to a diversity of stakeholders c. What are the factors that are likely to influence the adoption of a technology across a wide spatial area? Some factors to	a. Each child project has developed its own theory of change that clearly defines the system boundary and takes into account biophysical as well as social and economic drivers of change to agro-ecosystems. All country investment projects have also undertaken cost-benefit analysis of the internal rate of return of the investment in terms of increase in yields and incomes for farmers and other land users. **This is also the case of the Niger child projects (elements are present throughout the document).** b. Local knowledge will be combined with scientific knowledge in targeted agro-ecosystems in country child projects, through a process of consultation with and participation of local stakeholders in implementation of field activities and production of new "hybrid" knowledge. **This is already the case of technologies disseminated within the Niger Child project: they have been identified within past projects (PPILDA, PASADEM) through a tri-partite approach including research, local "farmer-innovators" and the IFAD projects; the approach of IFAD projects in Niger has been building in such dynamics for over 10 years.** c. The issue of adoption of technologies is addressed under component 2 of the current project through a two-pronged approach focusing on strengthening and greening of food value chains on the one hand, and support to agricultural agricultural services on the other. A training programme will be developed and implemented to support work on value chains and a project facilitation platform will be established to support innovative proposals for improving and greening value chains. Different kinds of agricultural advisory services to promote adoption or adaptation, as well as to strengthen local institutions, will receive support depending on the local context. It could include support to Farmer Field Schools (FFS), Participatory

consider include labor, cost of introducing or maintaining the technology, local and cultural factors. These questions will allow for a strengthened inter-disciplinary approach and use of "hybrid knowledge" for improving agricultural and agro-pastoral management……..and strengthen land management institutions, and present greater opportunities for smallholders to adopt, or adapt, sustainable land management technologies….	Technology Development (PTD), Participatory Learning and Action Approaches (PLAR), Farmer to Farmer Approach (F2F), Diversity Field For a (DFF), etc. **This is also the case of Niger, with a very strong focus on Farmer to Farmer approach for the dissemination of ANR (low cost technology, with visible results after only one year).**
4. In its report to the GEF Assembly, ´Delivering Global Environmental Benefits for Sustainable Development`, STAP states that opportunities for achieving food security and improving livelihoods can be achieved while lessening the impacts of global environmental challenges, by developing an approach that includes food supply commodity chains and which relies on sustainable land management. ……STAP encourages learning from previous experiences and for this learning to be systematized across the countries. In this regard, component 3 will be an important knowledge management tool which STAP encourages to be developed fully in each of the individual projects.	Support to food value chain development will provided at regional level through the current project (see answer to question 3). This will build on the well tested approaches of UNDP and AGRA to support value chains, including innovation platforms. Successing in scaling up will be monitored and documented under component 3 on monitoring and assessment, and experiences will be shared through the knowledge management and communication strategy under component 4. **The approach of ProDAF is based on connecting food production areas (where the IAP is intervening by encouraging sustainable ecosystem management to build resilience) to economic development poles (half bulk markets) where the project is supporting the inclusive development of the marketing strategies (at national and transboundaries level).**
5. In its Assembly report, STAP encouraged GEF to consider targeted research to fulfill the desired outcomes of the program, which are multifaceted and complex. Research issues that STAP believes need addressing through the program includes: a. Sustainable intensification to optimize efficiency in land use. b. Drawing from the application of the RATA, resilience assessment can be strengthened int the GEF.	The IAP will have strong links to agricultural research in the CGIAR and ICRAF will host PCU of the regional project and also be responsible for, in collaboration with IFAD, to implement the knowledge management and communication strategy of the IAP. The programme will thus be able to draw on the CGIAR extensive research on sustainable agricultural intensification. Further capacity building in applying the RAPTA (former RATA) framework will receive support under component 3 of the current project, and is expected to lead to some level of resilience assessment in all country child projects. **The Niger Child project will benefit from these approaches. The Niger Child Project will also partner with research institutions such as: the National Institute for Agricultural Research of Niger (INRAN), ICRISAT (issues concerning agricultural practices and innovative plant material) and the AGRHYMET Regional Centre (observation and management of climate risks)**
6. For component 1, STAP recommends conducting a stakeholder analysis to identify common objectives across sectors and scales to strengthen coordination….	Stakeholder analysis have been conducted in ech child project to identify relevant sectors and cross-cutting objectives related to INRM. Many countries already have mechanisms in place for coordination of SLM at national level and they will be strengthened to include the broader concept of INRM. **Also the case of the Niger Child Project.**
7. STAP welcomes large-scale transformational change by scaling up soil and water conservation management, …..Literature shows that scaling-up strategies need to be strengthened in the design of projects, so their implementation is better targeted across scales and diverse groups of stakeholders…..As countries and the GEF Agencies conceptualize and implement their projects, STAP recommends,	a. Common monitoring and assessment tools to be applied across the programme to generate consistent and comparable data on impact have been identified under component 3. All the tools will be presented to and reviewed by all participating countries in connection with the launch of the program and inception workshop for the regional hub project. This will ensure consensus of which M&A tools to use from the start of

therefore, addressing the following points: a. identify the monitoring and evaluation methods to measure the scaling-up impact and process b. determine the cost-effectiveness of scaling up c. detail how partnership mechanisms for policy dialogue and update, and effective communication between multi-stakeholders will be developed. d. define how cross-sectoral learning will be encouraged and achieved.	the program. b. Analysis of cost effectiveness has been conducted in all country child projects, and is a requirement for IFAD projects. c. The partnership mechanism at regional level for policy dialogue has been outlined in component 1 of the current project with key partners identified. An overall communication strategy has also been developed for the program that will be implemented under component 4 (see Appendix 6.3 for detailed communication plan) d. Cross-sectoral learning will be supported at regional level by this project where component 4 will draw together all experiences and lessons across components and sectors and package them for different audiences, including policy makers, practitioners, the public, and the program's internal audience (see Appendix 6.3). **This is also the case for the Niger Child Project.**
8. Under risks, STAP suggests adding the challenges of scaling up technologies and practices, and how the project intends to redice this risk.	Risks related to scaling up are multifarious and addressed under risks to participation in work on value chains and risks to agricultural advisory services. **In the case of Niger, a scaling up matrix assessing the risk has been established. Mitigation of the inherent risk includes the choice to focus on locally developed technologies with high adoption rates and low development cost.**

CEO Endorsement review			
Review Criteria	Questions	Secretariat comments at CEO Endorsement	Response to Secretariat comments
Project Design and Financing	1. If there are any changes from that presented in the PIF, have justifications been provided?	- This is a child project under the Food Security IAP program, for which PIF stage was not required. - We suggest to revise and simplify the table A to keep the most appropriate focal area objectives and outcomes: the proposed project responds largely to the LD3 Program 4 ("outcome 3.2 Integrated landscape management practices adopted by local communities), but also makes frequent reference to Aichi Targets, which correspond to BD-4, Program 9 (Outcome 9.1 Increased area of production landscapes and seascapes that integrate biodiversity conservation and sustainable use into their management; and Outcome 9.2 Sector policies and regulatory frameworks incorporate biodiversity considerations).	BD-4, Program 9, Outcome 9 does not apply because no Key Biodiversity Area (KBA) could be identified within the project implementation area. LD-1 Program 1, Program 2; LD-3, Program 4; LD-4 Program 5 are the focal areas best matching the IAP approach (institutional support; scaling up; M&A). LD-3, Program 4 “Support SLM mechanisms in wider lanscapes established” best corresponds to the ProDAF approach which completes the GEF-IAP ProDAF through a development pole approach through which farmers more efficiently market their agro-silvo-pastoral production surplus through half-bulk markets that supply the national centres of consumption and transboundary markets. (no changes in the document)
	2. Is the project structure/ design appropriate to achieve the expected outcomes and outputs?	- In the current result framework, we do not find explicit mention of monitoring and assessment of global environment benefits and resilience. Please, explain the activities that are included in the project, and adjust, if necessary, the formulation in the result framework.	The current result framework includes the following elements for monitoring and assessment of global environment benefits and resilience: “Improvement in the food and nutrition security of targeted households (reduction of the period of drought by at last one month, diet diversity) “; “In year 8 of the programme, 240,000 farmers have improved their resilience to climate change”; “1.4 tonnes of CO2-eq/ha/year sequestered or whose emissions were avoided”; “30,000 ha of watershed are improved by soil and water conservation measures”; “2,500 ha of grazing land and passage corridors established”; “240,000 people are trained in methods and techniques of agricultural production that is better adapted to climate change”; “190,000 ha were restored under assisted natural regeneration (ANR)” No direct reference to Component 3 of the IAP is made within the logical framework because the project was formulated together with the IFAD project which includes all M&E activities in its management component. The development of a common logical framework is part of the strategies granting the best chances of efficient synergies between the IFAD and GEF financing. (no changes in the document)
	3. Is the financing adequate and does the project demonstrate a cost-effective approach to meet the project objective?	Addressed.	-
	4. Does the project take into account potential major risks, including the consequences of climate change, and describes sufficient risk response measures? (e.g., measures to enhance climate resilience)	Addressed.	-
	5. Is co-financing confirmed and evidence provided?	Addressed.	-

Project Design and Financing	6. Are relevant tracking tools completed?	Addressed.	-
	7. Only for Non-Grant Instrument: Has a reflow calendar been presented?	N/A	-
	8. Is the project coordinated with other related initiatives and national/regional plans in the country or in the region?	Yes (but see cell 9 on the linkages with the regional and cross-cutting project).	-
	9. Does the project include a budgeted M&E Plan that monitors and measures results with indicators and targets?	- In the section 5) (p14) there is a description of the global environment benefits (land and water rehabilitation, sustainability of ecosystems, resilience of farming systems, impact on food security, carbon storage, rehabilitation of Ramsar sites). However, we did not find enough elements to well understand how these elements will be monitoring and assessed. It seems essential to clearly express and budget these monitoring activities, and reinforce the demonstration that ecosystem services, productivity, livelihood, and food security at the end, are linked. - These monitoring activities should also be considered in association with the regional and cross-cutting project (RCCP), notably its third component with CI and UNEP. These activities should eventually be included in the "hybrid work plan" with the RCCP.	- Further detail has been developed in section C. p. 25 on how these elements will be monitored and assessed. The detailed budget is presented at the end of section C. A demonstration of the link between ecosystem services, productivity, livelihood and food security has also been added in section C. (p.26). - Links between monitoring activities of ProDAF and of the hub project ("regional and crosscutting project"-RCCP) have been developed in section A.2) (p.16-17).
	10. Does the project have descriptions of a knowledge management plan?	In the section A.2 (p15), we appreciate to find out the specific activities that makes this project part of a larger program (exchange and training, KM, monitoring, and evaluation). However, we would like to see better explanation on the two following elements: 1) The big picture is missing. We will appreciate a text explaining how this project is responding the three Food-IAP components (1) Institutional frameworks for influencing sustainability and resilience, 2) Scaling up integrated approaches for sustainability and resilience, and 3) Monitoring and assessment of ecosystem services, global environmental benefits and resilience). 2) IFAD being the IAP lead agency, we would like to see more details on the "hybrid work plan" with the cross-cutting regional project. It will also be a way to strengthen the outputs and outcomes of this project on the assessment of ecosystem services, GEB, and resilience.	1) Further elements on the "big picture" have been provided directly in section A.2) (p.16) with clarification of the activities related to 1) Institutional frameworks for influencing sustainability and resilence (Niger's national initiative on Food Security and Resilience); 2) Scaling up of integrated approaches for sustainability and resilience (key investments in land rehabilitation by the Niger child project); 3) Monitoring and assessment of ecosystem services, global environmental benefits and resilience (as clarified in section C. Budgeted M&E plan) 2) Links between monitoring activities of ProDAF and of the hub project have been developed in section A.2) (p.17); especially regarding the activities of knowledge management planned under the hub project. The detailed hybid plans will be elaborated at project level after the projects start, as described in section A. 2) (p.17).

Agency Responses	11. Has the Agency adequately responded to comments at the PIF3 stage from:		
	• GEFSEC		
	• STAP	No. A table of response is missing.	The table of responses has been added (p.32-34).
	• GEF Council	No. Please, provide a table of response to explain how this project has included the comments from the US and Canada Council Members expressed at PFD level. Please, also respond to the specific comments made by Germany on the Niger project.	The table of responses has been added (p. 30-31).
	• Convention Secretariat	N/A	-
Recommendation	12. Is CEO endorsement recommended?	We thank the Agency for the very high standard of this child project, but the project cannot be recommended yet. Please, address the comments above.	-
Review date	Review	June 10, 2016	-
	Additional Review (as necessary)		
	Additional Review (as necessary)		

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS[17]

A. Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: USD 70,000			
Project Preparation Activities Implemented	***GEF/LDCF/SCCF Amount ($)***		
	Budgeted Amount	***Amount Spent Todate***	***Amount Committed***
Team leader (Thierry LASSALLE)	13,000.00	10,679.65	-
Institutional expert (Hamissou GARBA)	5,000.00	3,647.70	-
Translator (Barbara HALL)	7,000.00	6,073.42	-
Baseline study preparation	45,000.00	-	-
			-
Total	70,000.00	20,400.77	0

[17] If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue to undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities. Agencies should also report closing of PPG to Trustee in its Quarterly Report.

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used**)**

Provide a calendar of expected reflows to the GEF/LDCF/SCCF Trust Funds or to your Agency (and/or revolving fund that will be set up)

N/A