



Republic of Niger



# NATIONAL STRATEGY OF THE COMDEKS PROGRAM



**COMMUNITY DEVELOPMENT AND KNOWLEDGE  
MANAGEMENT FOR SATOYAMA INITIATIVE IN  
NIGER: CASE OF THE POND OF TABALAK**

**February 2014**

## Table of Content

<b>EXECUTIVE SUMMARY .....</b>	<b>5</b>
<b>I. PRIORIRY SECTOR FOR THE COMMUNITY DEVELOPMENT AND THE MANAGEMENT OF KNOWLEDGE FOR SATOYAMA INITIATIVE IN NIGER.....</b>	<b>7</b>
1.1. Identification of the area .....	7
1.2. History of the area .....	8
1.3. Biological resources .....	8
1.4. Relief .....	9
1.5. Climate and rainfall .....	10
<b>II. ANALYSIS OF THE SOCIO ECONOMIC SITUATION OF THE AREA .....</b>	<b>10</b>
2.1. Soils .....	10
2.2. Plant rssources .....	11
2.3. Pastoral resources .....	12
2.4. Fishery resources .....	12
2.5. Water resources.....	13
2.6. Socio economic characteristics and factors of production .....	13
2.6.1. Main economic activities .....	14
2.6.2. The actors of the management of the ecosystem of Tabalak.....	16
2.6.3. The expectations of the actors.....	17
<b>III. AREA STRATEGY .....</b>	<b>18</b>
3.1. Vision.....	18
3.2. The products of the program and the indicators .....	19
3.3. Typology of the community based projects that can be funded .....	20
3.3.1. Example of eligible projects .....	20
3.3.2. Criteria for the choice of the projects .....	20
<b>IV.MONITORING AND EVALUATION PLAN OF THE PROGRAM .....</b>	<b>21</b>
<b>V.PLAN OF THE MANAGEMENT OF KNOWLEDGE.....</b>	<b>22</b>
Annex 1 : Matrix of the country program .....	24
Annex 2 : Indicators of progress .....	27
Annex 3 : Bibliography .....	28
Annex 4 : Main climatic characteristics of the landscape .....	<b>Error! Bookmark not defined.</b>
Annex 5 : Socio economic characteristics of the households .....	<b>Error! Bookmark not defined.</b>
Annex 6 : Economic contribution of fishing and the catch .....	<b>Error! Bookmark not defined.</b>
Annex 7 : Development partners of Tabalak.....	<b>Error! Bookmark not defined.</b>

Annex 8 : The watershed of the pond of Tabalak .....	<b>Error! Bookmark not defined.</b>
Annex 9 : The villages on the watershed of the pond of Tabalak	<b>Error! Bookmark not defined.</b>
Annex 10 : Simplified scheme of the present functioning of the landscape.....	29
Annex 11 : A few pictures of the pond of Tabalak .....	30
Annex 12 : A few pictures of the community interviews .....	32

## EXECUTIVE SUMMARY

The UNDP launched in June 2011 the project for Community Development and Knowledge Management (COMDEKS) in partnership with the Japanese Ministry of Environment (MOEJ), the Secretariat for the Convention on Biodiversity (SCDB) and the United Nations University (UNU). The COMDEKS program is in line with the framework of SATOYAMA Initiative, which was adopted in October 2010 at the 10th conference of the Parties (COP 10) of the Convention on Biodiversity (CDB).

The main objective of the program is to develop a sustainable good management of the biodiversity and that of the sustainable activities of livelihood with the local communities in the fields of socio ecologic production in order to maintain, rebuild and revitalize the areas in compliance with the five following perspectives of Satoyama Initiative: (i) the use of resources in the limit of the load capacity and resilience of the environment; (ii) the cyclical use of natural resources; (iii) the knowledge of the value and the importance of local traditions and cultures; (iv) the management of the natural resources by the various participating and cooperating entities and (v) the contribution to the socio economic activities.

The program focuses mainly on the support and the coordination of concrete actions at the basis by giving a small scale funding to the local community projects in the given priority fields to reach some impacts at the scale of the situation in the developing countries. The lessons learned from the actions on the field will be then analyzed and disseminated in order to be replicated in other parts of the world. The present execution mechanism of the Program of Micro financing (PMF/FEM) of the UNDP will be used to give the small scale funding to the communities in the selected countries. The selection and the implementation of the community projects in each country will be guided by a national strategy of the COMDEKS program.

The elaboration of the national strategy of the COMDEKS program is based on a process of adaptive collaborative management fed by the desires and perceptions of the main actors in the area. The steps of the collaborative management include: 1) the establishment of a reference situation, 2) the elaboration of a strategy action for change, 3) the choice of indicators for monitoring the progress towards the realization of the expected results in the strategy, 4) the monitoring and the learning of the way the area goes towards the expected results, and 5) the adaptation of the management strategy to reflect the changes in the area and the needs of the people who live in.

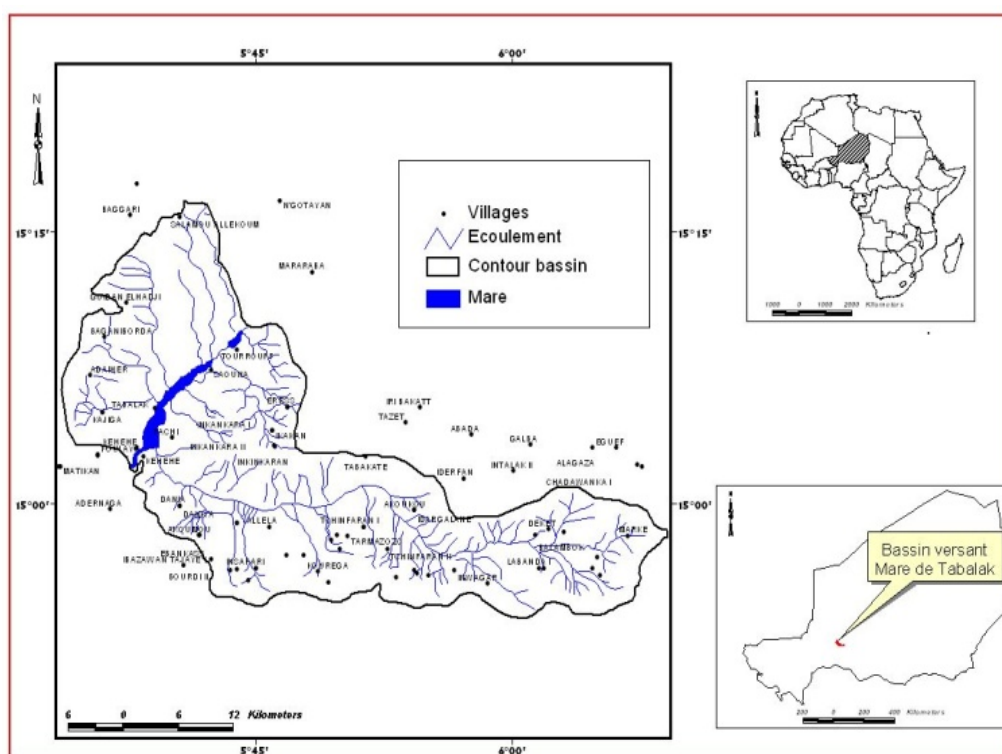
In June 2013, Niger was preselected to be part of Satoyama Initiative and was called upon to elaborate its national strategy for the COMDEKS Program.

It is in this framework that the pond of Tabalak, with a surface of 3,557 hectares, located in the region of Tahoua was selected to be the subject of the implementation of the program. The pond of Tabalak is one of the 12 humid ecosystems that Niger has registered as Ramsar sites or humid zones of international importance. Several studies demonstrated the importance of this pond for the populations on the one hand, thanks to the production activities that they undertake, and on the other hand, the Migrating Birds of the Western Palearctic that transit by this pond during their descent from Europe to Southern Africa or on their way back.

However, the pond and its environment are today exposed to an accelerated degradation of their resources because of human and climatic pressures. About ten projects already intervene in the zone of Tabalak to reverse the tendency towards the degradation of the resources of the area.

This program that includes four (4) products will contribute to reaching the national policies such as the National Strategy on Biodiversity (NSB) and the Strategy for Food and Nutritional Security and Sustainable Agriculture Development (SSAN/DAD) called “3 N Initiative.”

The Non-governmental Organization (NGO) and the community based local and national organizations (CBO) are in charge of elaborating some projects or micro projects to reach the products of the program. The PMF/FEM Niger will receive 280, 000 USD to give some subsidies to the NGO and CBO in accordance with the guidelines of the national COMDEKS program.



**Figure 1:** Situation of the pond of Tabalak

# I. THE PRIORITY SECTOR FOR COMMUNITY DEVELOPMENT AND KNOWLEDGE MANAGEMENT FOR SATOYAMA INITIATIVE IN NIGER

## 1.1. Identification of the area

The socio economic field chosen in the framework of the COMDEKS project in Niger is the pond of Tabalak (Picture 1). The pond of Tabalak is located in the transition zone between the agricultural area and the pastoral area of Niger.

This pond is located in the climatic zone of transition between the Sahara in the North and the Sahel in the South and is between the isohyets 200 and 400 millimeters. This pond is one of the most important internal ponds of Niger. It is a space which is both sensitive to the climatic variations and to the anthropic impacts.

The pond of Tabalak was registered on the RAMSAR list of humid zones of international importance in September 2005. It is a pond of fresh water with a regime, which ranges from permanent to semi-permanent. This pond is surrounded by a cordon of moving sand hills, mostly in the Northern and North east part. Further South and South West; it is limited by a plateau of low altitude.

From its geo-climatic position, in the middle of an arid zone, the pond of Tabalak is a humid area that plays an important role in maintaining the biological diversity and contributes in a substantial way to the development of the socio economic activities of the populations who draw the basic elements of their vital resources through agriculture, stock breeding and fishery.

The water body of the pond goes alongside the uranium road (Tahoua-Arlit road) on a distance of ten kilometers, from the village of Kéhéhé to that of Tsaouna by passing by Tabalak. The pond is 50 kilometers away from the town of Tahoua, around the geographic coordinates 15°05' of latitude North and 05°39' of longitude East. The average altitude is 395 meters. The surface of the water body varies according to seasons (from 50 ha to almost 1000 ha with an average depth of 2 meters.



Figure 2: satellite Image of the pond of Tabalak (GRN study, 2009)



The watershed of the pond is part of the zone of the plateau of Ader-Doutchi- Maggia. The average altitude of the basin is between 300 and 500 meters with a culminating point reaching 746 meters. The surface of the watershed is estimated at 355,698.8 hectares, that is about 3,557 km<sup>2</sup>.

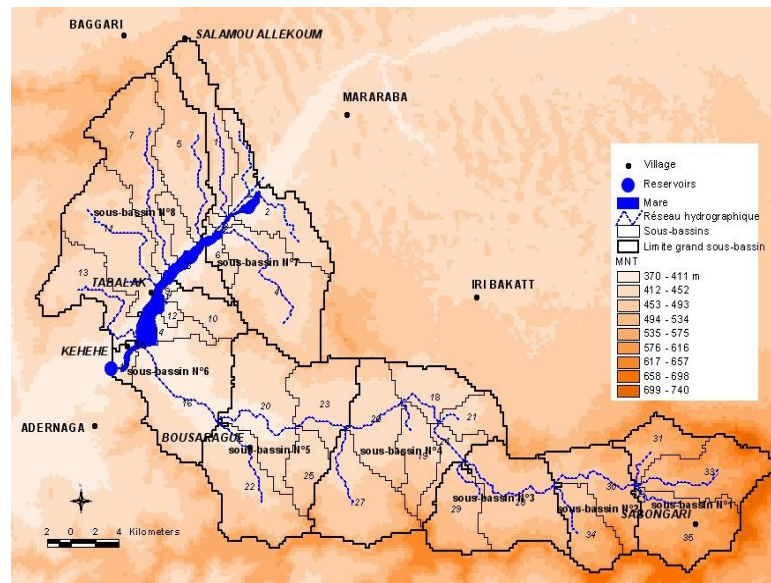


Figure 3: The watershed of the pond of Tabalak

## 1.2. The history of the area

According to several sources (Greigert, 1966 and Koroney, 1988), until 1950, the present site of the pond was only a vast wooded marshy land covered by *Acacia nilotica* and *Balanites aegyptiaca*, that used to dry two or three months after the rainy season. The pond became permanent between 1945 and 1953, following the destruction of a natural shelf on the kori Ibbaga. The village of Tabalak was founded in 1974. On the onset, the population was mainly composed of Touareg stock breeders, who were benefitting from the water and the pasture in the area of the pond. The presence of fish in the pond attracted the Hausa fishermen who came to settle. Then, the political authorities settled the populations who were victims of the big drought of 1983-1984 and distributed to them some irrigable lands around the pond.

As for its administrative place, the pond is essentially located in the rural commune of Tabalak, department of Abalak in the Region of Tahoua, but the watershed of the pond also integrates some lands of the Communes of Kalfou and Keita.

## 1.3. Biological resources

The diversity of biological plant is composed of hundreds of grassy plant species such as *Cenchrus bifloris*, *Aristida* spp, *Echinochloa* spp, *Solanum nigrum*, *brachiaria* spp, *Typha australis*, and also local and exotic ligneous such as *Acacia nilotica*, *Acacia raddiana*, *Bauhinia rufesens* et *Bauhinia reticulatum*, *Acacia albida*, *Balanites aegyptiaca*, *Eucalyptus camaldulensis*, *Prosopis juliflora*, etc.

The natural vegetation and the plantations offer to Tabalak, green scenery which is remarkably beautiful in the middle of an arid landscape.

The animal biological diversity is characterized by several species of fauna, notably hundreds of migrating water birds and sedentary birds. The main counted species are waders,



limicolous and ducks. It is a very important zone of transition for the water birds such as the crowned crane birds (*Ardeotis pavo*) that are rare in the other regions of the country, but regularly observed on the pond of Tabalak. Thus, it was observed 43 individuals in 1992, 5 individuals in 2000 and 100 individuals in 2001 (DFPP, 2001).

The aquatic fauna is composed of crustaceans, batrachians (frogs) and fish among which there is the *Clarias lasera* introduced since 1965; *Lates nilotica* and *Tilapia niloticus* which were recently introduced.

The mammals are represented by small rodents: rats, squirrels, hedgehogs, mice and jerboas.

The micro flora of the area is still less known.

#### 1.4. Relief

The landscape is characterized by various types of mediums: plateaus, hollows and sand dunes.

**The zone of plateaus:** it is a degraded unit of lateritic grounds. They constitute grazing areas, of forestry and lateritic development. It is from there that begins the accumulation of runoffs. The surfaces of the plateau are stationary in time.

**The zone of sand dunes:** The sharp sand dunes constitute the ultimate phase of soil impoverishment characterized by the virtual non-existence of woody vegetation and a strong exposure to wind erosion. However, one notices in places some hardy perennials loved by the livestock (*Cenchrus biflorus*, *Eragrostis tremula*, etc.).

**The zone of the glaci:** It is the zone comprised between the dunes and the valley. It is characterized by a woody vegetation of important settlement of *Balanites aegyptiaca*, *Prosopis juliflora*, etc. undergoing an uncontrolled exploitation for the supply in firewood, saw log and service of the villages. The degradation of the slopes increases the development of the system of gullying which accentuates the phenomenon of silting of the pond.

**The zone of hollows:** it consists of the pond, the grounds around the pond and the koris. The pond constitutes "the lung of the landscape". It is around it that are practiced the activities of market gardening, fishing, pasture and watering of the animals. The hollows are located around the water body and certain koris. This unit is strongly used for irrigated farming thanks to the availability of water and its agricultural potentiality. The koris are waterways that carry runoff water towards the pond. They are manifestations of water erosion. They rise from the plateaus and cross other units before flowing into the pond where they drain an important quantity of water and solid elements (sand and remains of plants and invading plants).

Table 1: Surfaces of morphological units of the watershed of Tabalak pond

Units	Surfaces (Ha)
Hollow	20,116.6
Butte	747.5
Sharp Dune	1,205.8
Glacis	263,452.6
Kori	19,596.6
Pond	1,568.3
Peak of plateau	4,557.3
Rocky Talus	44,454.4
TOTAL BV	355,698.9

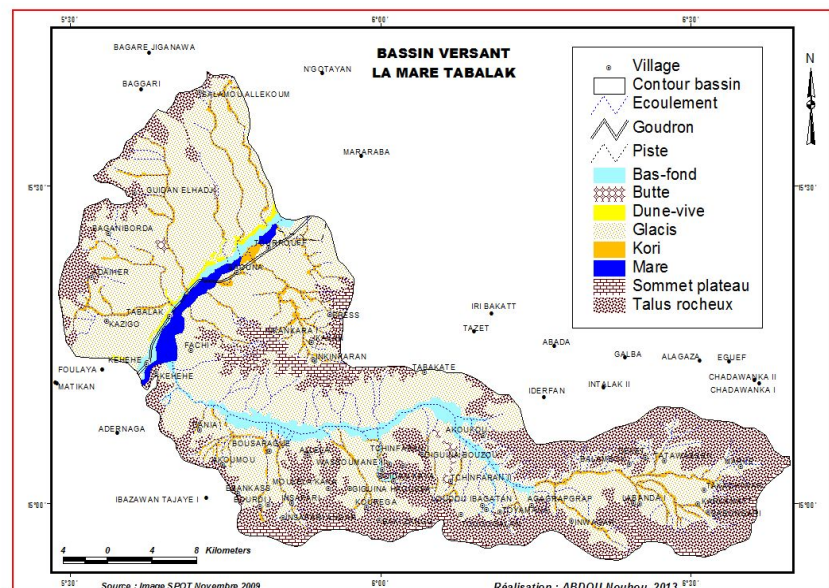


Figure 4: Morphological units of the watershed of the pond of Tabalak

## 1.5. Climate and rainfall

The climate of the zone is of Sahel-Saharan type, characterized by two (2) main seasons: a long dry season of 8 months (October to May) and a short rainy season that lasts four months (June to September, characterized by monsoon, a hot and humid wind. It is during this period that the pond gets filled thanks to runoff water from the rain coming from various sub-watersheds.

The annual average temperatures prevailing in the zone range from 20°C and 34°C, but they can go down to 8°C in February and can get up to 42° C in April and May.

The rainfall is characterized by its irregularity and its unbalanced repartition in time and space (511.5 mm in 1994, against 167 mm in 2004). The rainfall and climatic readings are in appendix.

## II. ANALYSIS OF THE SOCIO ECOLOGIC SITUATION OF THE AREA

### 2.1. Soils

The zone of the landscape is part of the sedimentary basin of the Illuinden. The different types of soils found there are classified into two big paedologic units: (i) the soils on the alluvium, around the pond and in the hollows; and (ii) the tropical ferruginous soils on the aeolian or lateritic deposits. The soils of the area contain a low rate in organic matters. They are submitted to a continuous impoverishment due to the conjugated effects of the climate and the occupation of lands (farming activities by clearing and tree felling).

The main factors of degradation of soils are:

- The repetitive droughts;
- The violent winds;
- The inappropriate farming and pastoral activities;
- The disappearance of the system of land fallow;

- The degradation of vegetable cover.

The impacts of the climatic factors and those related to the use of lands are:

- The decrease in the fertility of soils;
- The appearance of ravines and the enlargement of koris;
- The silting of the pond;
- The colonization of invading plants.
- The appearance of sand dunes.

## 2.2. Plant resources

The vegetable formations characteristic of the rural district of Tabalak are the thorny and grassy shrubby steppes. The woody species primarily present are *Acacia nilotica*, *Balanites aegyptiaca*, *Acacia raddiana*, *Acacia seyal*, *Ziziphus mauritiana* and *Acacia albida*. Beside this natural vegetation, there are some exotic species such as *Prosopis juliflora*, *Eucalyptus camaldulensis* and *Azadirachta indica*.

The communities and local actors certify the advanced degradation of the entire ecosystem. The surface of the vegetable cover and that of the plant biodiversity in general is in clear decrease. The necessary ligneous to insure the energetic needs and even foods of the population gradually disappear. The population of Tabalak pointed out during the focus groups the quasi disappearance of the ligneous species such as *Piliostigma reticulatum*, *Combretum glutinosum* and herbaceous species such as *Echinochloa colonum*, *Citrullus lanatus* and *Cassia tora*.

The most important observations made by the local populations in recent years are the expansion of *Prosopis juliflora*, mostly at the level of the subjacent ecosystems of the pond where market gardening is practiced. The consequence of this occupation is the competition with the other vegetable species, the diminution of the yield of farming and the production of thorns dangerous for the people and animals. Also, the proliferation of invading plants such as *Typha domingensis* and *Cyperus* sp seems to be growing in size.

The cutting of wood for service and energy, the overgrazing, the clearings of land for agriculture and droughts are regarded as being the leading causes of the regression of plant resources in the landscape. The resulting consequences are the disappearance and /or the rarefaction of some multi-purpose plant species (such as *Faidherbia albida*), the exposure of farm lands to various types of erosion, the degradation of pastoral pathways, the phenomenon of sand dunes, etc.

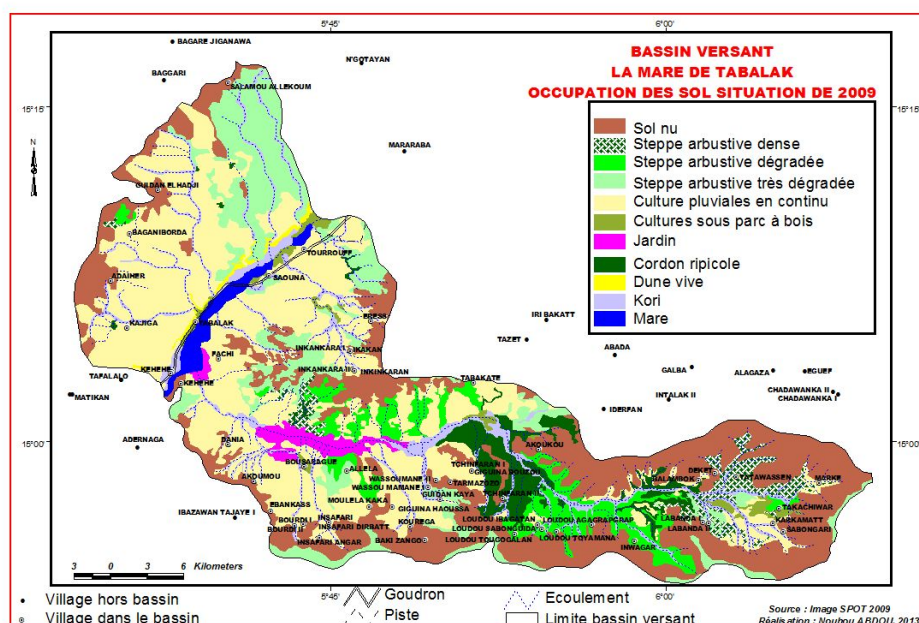


Figure 5 : The units of land occupation of the watershed of the pond of Tabalak

## 2.3. Pastoral resources

The fodder species constitute a basic resource for stock breeding, which remains the first human activity in the commune. Most of the inhabitants in the villages consider that this resource is in regression. The factors of regression of these pastoral resources, unanimously mentioned, are the decrease in rainfall, overgrazing, the expansion of invading species not liked by the animals (*Sida cordifolia*, *Percularia tomentosa*), the phenomenon of land silting (apparition of sand dunes), the regression of pastoral pathways to the profit of farming lands. Several cases of non-violent conflicts are recorded following the penetration of animals in the farming lands or plots for farming on the one hand, or the encroachment of farm lands on the corridors of passage of animals, on the other hand.

## 2.4. Fishery resources

Fishing is the main activity around the pond. The populations living around the pond get some substantial incomes from it. Moreover, the fish which is produced contributes to the improvement of food.

The main species of fish found in the pond are *Oreochromis niloticus* or Carps, *Lates niloticus* and *Heterobranchus bidorsalis* or silurids. The piscicultural production is estimated at several tons per year. In 2003 for example, 291 tons of fish were produced in five months of fishing (Carps, Lates and /or silurids), for an amount of about 73 million FCFA. For example: a kilo of lates costs 600 FCFA in Tabalak, 750 FCFA in Tahoua and 1 250 FCFA in Niamey.

The fresh fish is sold on the local markets in Tahoua and Agadez. Due to a lack of conservation infrastructures, the fresh fish which is not sold is smoked, grilled or dried to be exported to Nigeria.

The demand in fish has considerably increased since 2000. This growing situation has brought about overfishing resulting to catching small fishes.

The main factors of degradation of fishery resources of the pond are:

- Silting;
- The invasion of the pond by aquatic plants and thorny plants ;
- The repetitive droughts;
- The decrease in rainfall;
- High temperatures;
- The overexploitation (overfishing);
- The use of forbidden fishing machines.

All these factors bring about a decrease in the depth of the pond, the partial or total drying up of the pond resulting in the disappearance of certain species and the loss of sires and young fish. The species of fish in decrease are *Auchenoglanis occidentalis* and *Bagrus bayad*.

The exploitation of fishery resources in the pond is subject to having a fishing permit, the payment of license and to being member of one of the local cooperatives. The species considered for breeding are Lates, *Bagrus* and Carp.

## **2.5. Water resources**

The means of subsistence of the populations of the basin of the pond depend heavily on the state of the pond. The decrease in rainfall and drought bring about a diminution of the levels of water in the pond and of the water tables, even a faster drying up of the pond at the end of the dry season (month of May) because of evaporation, infiltration, farming and watering of the livestock.

The increase in the frequency of these drying ups in recent years is perceived by the population as a threat to the existence of the pond and constitutes a concern for all the social categories.

The water drained by the koris during the rainy season can bring large quantities of sand. Thus, the local communities observe an increase in the surface of the pond and a decrease in its depth. The major indicator of this change is related to the fact that the fishermen can now cross the pond on foot at several points which were inaccessible 10-15 years ago.

The diminution of the volume of water in the pond causes a decrease in all the activities of the basin as the market gardening and piscicultural productions are intimately linked to the quantity of water.

Floods also provoke a diminution of agricultural incomes due to the loss of production by deterioration during prolonged submersions of the fields and perimeters by spate water.

Some local actors make the hypothesis that the variability at the level of the quality and quantity of water could already have an impact on the migrating birds.

## **2.6. Socio economic characteristics and factors of production**

The total population of the watershed of the pond of Tabalak is estimated at 41,958 people among whom 52% are men and 48% of women (NIS, 2001 and PDC Tabalak, 2010). About 3,500 people live around the pond.

It comes out from the interviews carried out with the community leaders that the populations surveyed are shared among four socio economic groups: the very poor, the poor, the middle class and the wealthy. The main criteria of wealth that differentiate these socio economic categories are: the size of the households, the surface of the cultivated farm land, the possession of lands, of cattle and of agricultural equipment. Thus, in our zone of study, the repartition of these socio economic groups shows that the very poor and the poor constitute 71% of the population whereas the middle class and the wealthy only represent 29 %.

As for the size of the households, it diminishes from the wealthy to the poorer and we can point out that the one of the poorest only represents half of the size of the wealthy households. The factors of production are also detained in a very big proportion by the middle class and the wealthy.

We also have to point out that very few households have latrines and most of the population defecates in the open air, which constitutes a real danger to health. Also, the villages near the pond do not have a system of sanitation, notably for the collect of household refuse, which are thrown in wild dumping sites.

### **2.6.1. The main economic activities**

#### **a. Fishing**

Four big villages (Tabalak, Kéhéhé, Fachi and Sawna) practice this activity over a period of six (6) months a year (August to January). However, due the abundance of fish, the fishing activity won't be closed for the campaign 2013-2014. The pond is stocked with several species of fish among which the most prevailing are Carps that represent 95 % of the catch and silurids 4.5%.

The fishermen are organized into cooperatives which are headed by one coordination committee. There are nine (9) cooperatives: 5 in Tabalak, 2 in Kéhéhé, 1 in Fachi and 1 in Tsaouna. Four (4) out of these nine (9) cooperatives are functioning normally: Niya, Hadinkay, Dotidjiwo and Madina. The coordination has about 230 official members. However, there are several tens of clandestine fishermen as according to the president of the coordination, there is among them a least one fisherman in each family of these four villages mentioned above.

Each fisherman earns in average 10, 775 FCFA / day, that is 1, 939, 500 FCFA/year (for six months of fishing) and the committee of cooperatives gets 23, 850 FCFA per year/fisherman. In total, fishing contributes to the local economy for an amount of 500, 940, 000 FCFA.

#### **b. Agriculture**

Pluvial agriculture is less developed because of the low rainfalls recorded in recent years. Thus, the products of this activity are not even enough to cover one month /12 of the annual



needs of the households. Therefore, the population resorted to the exploitation of the lands around the pond by practicing irrigated agriculture from October to April.

According to the Communal Director of agriculture, a surface of about 954.44 hectares is exploited in market gardening around the pond. This surface is shared among six (6) sites and is exploited by 5,375 market gardeners among whom 1,267 are women with an average surface of 0.40 hectare each. About 80% of the surface is exploited by men; 70% of them are adults over 40 years of age. Also, we have to point out that this representation of adults was more than 80% of men before the Libyan crisis (to explain). The women work in groupings: in 2011, there were 33 groupings of women market gardeners and 48 in 2013.

The main agricultural products practiced during the irrigated campaign 2012-2013 are onion, sweet potato, potato, tomato, cabbage and lettuce. The yields, the productions in tons and in value are given in appendix. The use of chemical products to increase the yield is forbidden. In total, 892.2 hectares have been exploited around the pond for a production of 19,742.71 tons, all products combined.

Fishing and market gardening are two activities with added value. Through fishing and market gardening, the pond contributes to the economy of the commune by five billion six hundred twenty million three hundred eighty six thousand four hundred and thirty nine (5 620 386 439) FCFA per year.

### **c. Stock breeding**

Stock breeding is the second economic activity after agriculture in the zone of Tabalak. This activity represents an important source of income for the population. It brings a supplement to agricultural activities (manure). We distinguish three types of stock breeding: transhumant stock breeding, home stock breeding and fattening.

The area has a big number of livestock: 8,300 bovines, 14,450 ovine, 114,980 goats, 12,350 donkeys, 11,498 camels and 200 equines.

The main diseases that affect animals in the commune are: pasteurellosis, anthrax, blackleg, pox, the foot-and-mouth disease and the plague of the small ruminants.

The pond serves for watering place for the big ruminants, mostly from September when the small water bodies of the zone start to dry up. In the rainy season, because of the occupation of the space by agriculture, the large majority of animals is taken to transhumance. Only the small ruminants and a few dairy cows are kept in the village. They drink water and graze around the pond. The fattening of small ruminants is practiced by women.

### **d. Other potentials in the area**

**Craft industry:** The commune of Tabalak is known for its craft industry activities. These activities are practiced both by women and men. There are several types of craftsmen: the shoe makers, the sculptors, the hairdressers, the leather workers, the tailors, etc. the sector of craft industry is still at an informal stage. The globalization recommends taking some measures to formalize the craft industry and give it a place to make it contribute in an efficient way to the economic development of the zone.



**Tourism:** It is a sector with a strong economic potential, but still not exploited. In fact, its status of Ramsar site or important international humid zone, the geographic positioning of the pond and its wealth in craft constitute some tourist assets to exploit. We have to verify at the Ministry of Tourism if Tabalak is part of the potential sites.

### 2.6.2. The actors of the ecosystem management of Tabalak

Considering the various strategic services that the pond of Tabalak offers to the neighboring populations, we distinguish several types of actors whose interests are often divergent.

#### The direct actors

- **The farmers:** Though it is located in an area where the rainfall is erratic, the populations of Tabalak mostly practice the pluvial agriculture. In fact, even the stock breeders have become sedentary people. The pluvial farming is practiced on the dune lands and the plateau ;
- **The market gardeners:** They occupy the borders of the pond to cultivate and dig some channels for draining water from the pond to the plots of irrigation ;
- **The stock breeders** whose cattle makes a double use (watering and grazing) of the pond and its immediate environment, mostly in the dry season;
- **The fishermen:** They practice this activity in the pond. The piscicultural production is directly linked to the quantity and quality of water and to the behavior of the fishermen (respect of the period of opening and closure of fishing). Due to a lack of means of conservation of fresh fish, the fishermen are supported in their work by the wholesale fish merchants who grill or smoke the fish;
- **The communal authorities** are in charge of the development of the administrative entity and therefore of the pond from which they get a part of their means of work and investments from taxes related to the trade of the products from the pond exploitation.

#### The indirect actors

- **The technical services of the State** are in charge of implementing the policy of the state (notably the respect of the laws and regulations on the management of natural resources) at the local level and ensure the support mission—advice to the territorial collectivities and to the populations. Tabalak hosts the technical state services of agriculture, stock breeding, the environment, health and education ;
- **NGO and Development projects** are the real motors to the local development. They can have one or several domains of intervention, notably that of the management of natural resources. These structures can encourage a change of behavior among the rural populations through capacity building activities and support-advice that they give. The list of NGO and projects intervening in the area is in appendix ;
- **The administrative authorities (governorate and prefecture)** represent the State and ensure the respect of all the laws and regulations of the Republic and the implementation of Government policy. They also ensure the compliance of the local actions with the big orientations set by the State ;
- **The national and local mechanisms for the prevention and management of crises and conflicts** are the legal organs (EWS/CM, Permanent Secretariat/Rural Code, COFODEP, COFOCOM) or formal/informal (local structures for the management of collective infrastructures and natural resources) whose principal missions are the

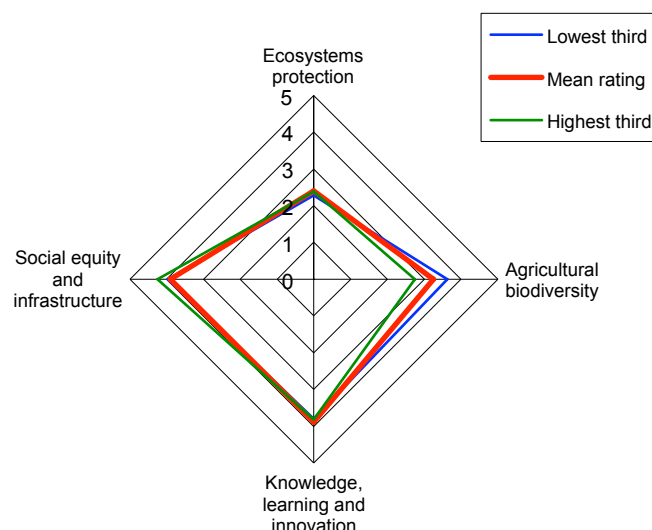
prevention and management of crises of natural origins and/or conflicts between people exploiting the natural resources. They constitute a framework of exchange between the various users of natural resources, securing land and the good practices for the valorization of natural rural resources ;

- **The traditional leaders (traditional chiefs, religious readers, opinion leaders)** are the direct and permanent interlocutors and collaborators of the administrative authorities in matters of rural police. They are a traditional instance of social regulation enjoying a great moral authority among the populations that they are in charge of and their involvement in any operation concerning “ their populations” favor their success;
- **The traditional healers, the traders, the craftsmen and the disabled people**

Several projects, programs and Non-Governmental Organizations (NGO) intervene in the area. All of them aim at the community based development. The domains of intervention focus on the community capacity building, the construction of diverse infrastructures, the improvement of the access to basic social services (water, health, education), the structuring of the populations at the basis, etc.

### 2.6.3. The expectations of the actors

The form of indicators of resilience of the socio ecologic landscape of the pond of Tabalak was administered to the direct and indirect actors during the evaluation workshop. This form allows evaluating the performance of the services in the area and that of the social infrastructures in relation to these actors through the SELTO diagram below.



The analysis of the SELTO diagram established from the focus group shows the relative diversity of the opinions of the different actors on the evolution of the ecologic services of the area and the quality of basic social services (education, provision in clean water and health). This was demonstrated in the standard of deviation recorded, which is high enough, concerning the agricultural biodiversity. Thus, the tendency is appreciated in different ways.

The agriculture (pluvial and irrigated) and stock breeding constitute the main activities of subsistence for most of the population. They are also traditional activities. Therefore, the

populations perceive very well the changes intervened in these domains, mostly with the accentuation of the effects of climate change on the agricultural and fodder productions.

The landscape of Tabalak is characterized by an ethnic diversity. The big majority of the population is Muslim. The specificity of Tabalak is that, despite the socio cultural impediments, the women are emerging and contribute to the socio economic development of the area. In fact, the intervention of NGO and projects and the social context characterized by the exodus of men made the women to organize themselves and are more apt to develop some income generating activities. There are 51 women groupings in the zone. The main productive activities of the women of Tabalak are: market gardening, fattening and pluvial agriculture. They also practice other economic activities such as the craft industry and make cheese. This shows that the women have expressed their opinions on the state of area.

The populations have a good mastery of the traditional practices of agricultural and pastoral activities, even if this knowledge is transmitted orally from father to son and direct apprenticeship. The climatic hostility of the zone has made the populations develop and adopt with the help of development partners, some strategies to adapt to the changes of the landscape. Though some of these strategies are not sustainable, they enable them to alleviate the effects of the crises.

Though the protection of the ecosystem seems to be a concern shared by all the actors, the demographic growth and the increasing demand of the society in goods and services, natural in the context of climatic change make the area unable to satisfy these needs. In fact, nowadays, there aren't any free lands in Tabalak. All the dune lands and low lands are exploited.

The various modes of access to land in the zone are inheritance, purchase, borrowing and pawning. The communities are aware of the global tendency to the diminution of the production capacity of the area and the progressive loss of know-how and traditional practices.

The essential social services (health, school and water supply) function normally and their access is free for all the social layers. The supply in water is done through wells and boreholes. However, a mini canalization of clean water is being built. The village of Tabalak is also connected to the national electricity network.

### **III. AREA STRATEGY**

#### **3.1. Vision**

The vision of the COMDEKS program for the pond of Tabalak is to “make the area of Tabalak, a zone where the local community develops in a sustainable way thanks to the increased socio ecologic services in the area and agreed and sustainable management of the productive ecosystems.”

The objective of COMDEKS is to ensure the sustainability of the socio ecologic productions of the areas through an adaptive collaborative management<sup>1</sup>.

### **3.2.The products of the program and the indicators**

The program aims at reaching the following results:

1. The components of the landscape are restored, protected and managed in a sustainable way;
2. The ichtyologic diversity and the piscicultural production of the pond are durably increased;
3. The living conditions of the social groups of the zone are improved through the creation and diversification of income generating activities respectful of the environment and in a clean environment;
4. The local institutional capacities for a rationale and sustainable landscape are reinforced.

The implementation of the country program of the strategy of the COMDEKS landscape will have four main products with some indicators related to it:

#### **Product 1 : the components of the landscape are restored, protected and managed in sustainable way**

Indicator 1.1: Surfaces of restored lands (plateau, glaciis, watershed and dunes)

Indicator 1.2: Surfaces of treated water bodies (weed cutting and treated banks)

Indicator 1.3: Number (%) of people who have adopted the technologies and sustainable ancestral practices.

#### **Product 2: The ichtyologic diversity and the piscicultural production of the pond are durably increased**

Indicator 2.1: Modern methods of production and conservation of fish

Indicator 2.2: % of fishermen who have adopted the conventional methods of catching fish

#### **Product 3: The living conditions of the social groups of the zone are improved through the creation and diversification of income generating activities respectful of the environment and in a clean environment.**

Indicator 3.1: Increase of the incomes of vulnerable households (very vulnerable and moderately vulnerable)

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<sup>1</sup> The adaptive management is a series of actions designed on the basis of the diagnostic of the area. The collaborative management requires the involvement of the major actors and the taking into account of their concerns and know-how.

Indicator 3.2: Number and type of activities/income generating enterprises or alternative sources of income introduced and adopted.

**Product 4: The local organizational capacities for the rational and sustainable management of the area are reinforced**

Indicator 4.1: Number of organizations (unions, groupings, or associations, commune) of the management of the area are created and made dynamic.

Indicator 4.2: Number or type of plans, programs, projects or agreements for the management of the area agreed and implemented and those from the commune

Indicator 4.3 : Number of lessons and good practices capitalized in the framework of the COMDEKS program

### **3.3. Typology of the community based projects that can be financed**

#### **3.3.1. Example of eligible projects**

In the framework of the reinforcement of the productive capacity of the area, the projects that can be considered for financing should focus on : the activities of conservation and restoration of lands on the various ecologic units of the area, the restoration and the protection of the pond, the implementation of sustainable and ecologic technologies for the exploitation and the management of natural and exotic resources (invading species), the activities for the improvement of plant and aquatic biodiversity, the creation of income generating activities for the households, the communities and the social groups, the capacity building of the actors.

Because of the state of advanced degradation of the ecologic units of the area that brought about the diminution of their productivity, the COMDEKS program will help the projects aimed at the diversification of agricultural methods (*agro forestry techniques, mulching, improved seeds, conservation agriculture, the improvement of rain water management and irrigation*), some techniques of production and conservation of plant and aquatic biodiversity and some techniques of sustainable exploitation of ligneous and not ligneous forestry products. The priority should be given to the technologies protecting the environment and easily appropriable by the communities. The activities should have some positive short or midterm impact on the improvement of the individual and collective welfare of the communities in the area. The identification of the actions should also be done in consultation with the actors.

#### **3.3.2. Criteria for the choice of projects**

In accordance with the guidelines of COMDEKS only the non-governmental organizations (NGO) and the community based organizations (CBO) can benefit from the funding of COMDEKS. The NGO and the CBO based in the departments of Abalak, Keita, and Tahoua will be encouraged to submit their projects. The procedures of selection, disbursement, execution and of monitoring of the COMDEKS projects will be in compliance with those of the program of micro financing of FEM.

The propositions of projects should:

- Contribute to the realization of the vision of SATOYAMA initiative through the implementation of one or some of the products contained in the COMDEKS Program Niger on the strategy of the country,
- Increase the resilience and the durability of the landscape in the face of the effects of climate change and the anthropic pressure,
- Reinforce the good practices of management, use and protection of natural resources,
- Improve the incomes of the communities living in the area through the development of socio economic activities based on the local resources,
- Contribute to a better taking into account of the gender in the activities of management of the natural resources,
- Reinforce the partnership between the communities and the development actors (NGO, Projects),
- Taking into account the contribution (in nature or in cash) of the beneficiary communities in the realization of the activities.

#### **IV. PLAN OF MONITORING AND EVALUATION OF THE PROGRAM**

The National Steering Committee (NSC) of the PMF/FEM of Niger will establish a quarterly report and send it to the Management Unit of the COMDEKS Project on the progress of the implementation of the Country Strategy according to the format in force for the projects of PMF/FEM. These reports should include the gender aspects in the description of the results and impacts, and focus on the successes, the lessons learned, the opportunities and the good practices.

The monitoring of the SEPL indicators: the SELP indicators measured during the reference study will be monitored yearly. A final evaluation of the SELP indicators will be organized through a workshop that will be financed. This will serve as a final evaluation of the Country Program of the strategy of the area.

The indicators of the individual projects: Each project will identify a specific product of the program to which he will contribute to reach and monitor the indicators related to it. The periodic reports from the beneficiaries of the projects will enable to update the global indicators of the program. The monitoring of the indicators of the projects will be in line with the one of the COMDEKS indicators.

##### **Plan for the monitoring and evaluation of individual projects**

The following minimum standards should be implemented for the monitoring and evaluation of the individual projects financed in the framework of the COMDEKS Program

- Pre-evaluation tour:The management team of the project should undertake some pre-evaluation tours to verify the conformity of the project document submitted by the NGO, before its approval by the CNP/PMF/FM and before the signature of the agreement protocol between the execution partner and the beneficiary.
- Monitoring tours on the field:Each project should be visited at least once in its lifetime: after the reception of the first step report from the beneficiary organizations and during the following year. The members of the CNP who have a relevant expertise in the technical fields related to the project can be part of these tours.
- The step reports:The beneficiary organizations should submit some semester reports to the National Committee (CN) of the PMF/FEM as well as a financial report. A prevision of necessary resources for the next phase should be submitted by the National Coordinator of the PMF/FEM as a condition for the disbursement of the next installment.
- The final report of the project:The beneficiary organizations should submit a final report summarizing the world advantages and other results obtained, the outputs, the products and the lessons learned. The final report should also include a complete financial statement.

This strategy will be reviewed every year during the meeting of the Consultative Committee that will be held at the National Steering Committee of the PMF/FEM and the members of the WETO Platform. Some modifications will be made if need be to ensure the improvement of the implementation process.

## **V. KNOWLEDGE MANAGEMENT PLAN**

Learning and sharing information are part of the main components of the COMDEKS program. It is expected that each beneficiary organization contributes to the production and the documentation of better practices and lessons learned. Thus, it is necessary that each community project allocates one part of its budget to the production of specific knowledge that will be developed to sum up the lessons drawn from the proposed activities.

The type of products from the knowledge that will be developed directly by the beneficiary and by the National Coordination of the PMF/FEM with the support of the Coordinator of the COMDEKS project will include:

- a semester bulletin that will be distributed to all the people involved, including the community of donors ;
- The case studies/publications on the lessons learned, the best practices and the new experiences to share with all the countries of COMDEKS (should be produced every year).The type of case studies should be determined during the implementation of the project ;



- Note to the decision makers;
- Brochures and posters;
- Study tours for the main stakeholders, including the media and exchanges among peers;
- Videos and photo stories (testimonies)

The Coordination of PMF/FEM will encourage the participation of the beneficiary organizations in the regional and national events (fairs, ceremonies, conferences, etc.) on the participative management of natural resources and the resilience of the ecosystems.

#### Influence of politics

Some round tables could be organized by the Coordination of the PMF/FEM with the political decision makers, the development partners (intervening in the field of management of natural resources) and the traditional authorities at the regional level to share the lessons learned from the COMDEKS project. Some memorandums will come out of these round tables and could be submitted to the organisms and financial donors. At the end of the round tables, it will be written a memorandum to the relevant sector organisms.

#### Scaling and replication

The good practices and the lessons drawn from the implementation of the COMDEKS Program should be used by the coordination of the PMF/FEM to improve its intervention. Beyond this, the coordination of the PMF/FEM should make the results of the Country COMDEKS Program known to pave the way for their replication on the similar ecosystems of the country or the sub region, even other continents. At the end of the program, a zoom day on Tabalak will be organized by the coordination of the PMF/FEM aimed at all the donors, the political decision makers, the press and the stakeholders to witness the results of the program. Documentation on the best practices will be prepared and given to the participants.

#### Recommendation

The realization of the monitoring and evaluation plan and that of the management of knowledge will mostly depend on the financial means that will be made available to the National Coordination of the PMF/FEM. We recommend that the Coordination of COMDEKS put some money aside for this purpose.

## Appendix 1: Matrix of the country program

Hierarchy of the objectives	Key indicators of performance	Monitoring and evaluation	Actors	Critical Observations
<b>Vision of the program:</b>  Making the area of Tabalak a zone where the local community thrives thanks to the accrued socio economic services of the area and a concerted and sustainable management of the productive ecosystems.	<ul style="list-style-type: none"> <li>- Increasing the plant and animal biodiversity of the area</li> <li>-</li> </ul>	<ul style="list-style-type: none"> <li>- Socio economic surveys</li> <li>- Specific studies</li> <li>- Independent reports</li> </ul>	<ul style="list-style-type: none"> <li>- Local communities and traditional communal authorities</li> <li>- The State</li> <li>- COMDEKS</li> <li>- PMF/FEM</li> <li>- Development partners (ONG, projects)</li> </ul>	<ul style="list-style-type: none"> <li>- Effective collaboration of the actors</li> <li>- Good security in the zone</li> </ul>
<b>Objective of the program :</b>  Promoting the restoration and the sustainable management of the natural resources of the area to increase the welfare of the local communities and the diversification of the income generating activities	<ul style="list-style-type: none"> <li>- The incomes generated by the implementation of the program are improved</li> <li>-</li> </ul>	<ul style="list-style-type: none"> <li>- Reports of the projects</li> <li>- Report of the recipients</li> <li>- Monitoring reports</li> <li>-Independent reports</li> </ul>	<ul style="list-style-type: none"> <li>- Beneficiary communities</li> <li>- Beneficiary NGOs</li> <li>CNP/PMF/FEM</li> </ul>	<ul style="list-style-type: none"> <li>- Effective participation of the communities</li> <li>- Involvement of the local authorities</li> <li>- Competences of the beneficiary NGOs</li> </ul>
<b>Product 1</b> :the components	- Surfaces of the reclaimed lands	- Reports of the	- Beneficiary	- The farmers are prompt to

Hierarchy of the objectives	Key indicators of performance	Monitoring and evaluation	Actors	Critical Observations
of the landscape are restored, protected and durably managed	(including the dunes) - Surfaces of treated water bodies (weed cutting, unsilting) - Number (%) of people that have adopted the durable technologies, new and ancestral practices	projects - Monitoring reports - Independent reports	communities - Beneficiary ONGs - CNP/PMF/FEM - Communal technical services	adopt the technologies and practices - Consultation between stock breeders and farmers
<b>Product 2</b> : the ichthyologic diversity and the piscicole production of the pond are increased	- Modern methods of production and conservation of fish - % of fishermen that have adopted the conventional methods of fishing	- Reports of the projects - Monitoring reports	- fishermen - ONG - CNP/PMF/FEM - Communal environmental Service	- Effective participation of the fishermen - Good willingness of the fishermen - Functionality of the fishermen cooperatives
<b>Product3</b> : the living conditions of the social groups of the area are improved through the creation and the diversification of income generating activities in a clean environment.	- Increase in the incomes of vulnerable households (very vulnerable and moderately vulnerable) - Number and types of activities/income generating enterprises or alternative sources of incomes introduced and adopted.	- Socio economic surveys - Specific studies - Independent reports	- Beneficiary Communities - Commune - ONG - CNP/PMF/FEM	The communities adhere to the program
<b>Product4</b> : the local institutional capacities for the rational and sustainable management of the area are reinforced.	- Number of institutions (unions, groupings or associations) of management of the area created and made dynamic - Number of plans, programs, projects or agreements for the management of	Rapport final	- Beneficiary communities - Commune - ONG - CNP/PMF/FEM - Communal technical	Good collaboration of all the actors involved in the program

Hierarchy of the objectives	Key indicators of performance	Monitoring and evaluation	Actors	Critical Observations
	<p>the area approved or implemented</p> <ul style="list-style-type: none"> <li>- Number of lessons and good practices capitalized in the framework of the COMDEKS program</li> <li>-</li> </ul>		services	

## Appendix 2 : Progress indicators

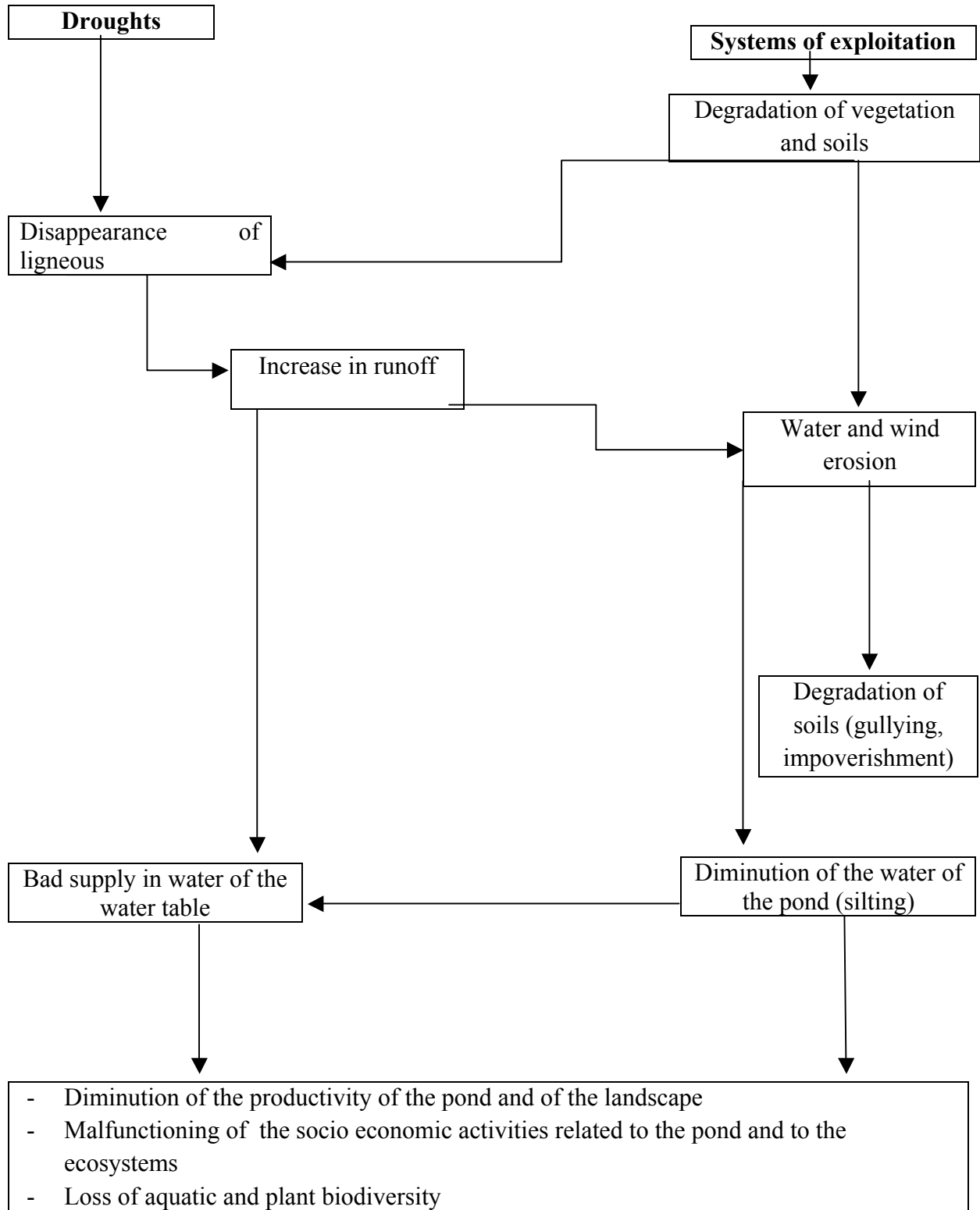
Key indicators of performance	Initial conditions	Year 1	Year 2
Indicator 1.1 : Surface of reclaimed (restored) lands	Plateau : 260 ha Dunes : 161 ha		
Indicator 1.2 : Surface of treated water bodies (weed cutting, unsilting)	50 ha		
Indicator 1.3 : Number (%) of people that have adopted the durable modern technologies, and ancestral practices	0		
Indicator 2.1 : Methods of production and of conservation of fish has improved	0		
Indicator 2.3 : % fishermen that have adopted the conventional methods of fishing	200 tons / year		
	3 species		
	Very poor: 1 donkey		
Indicator 3.1 : - Increase in the incomes of vulnerable households (very vulnerable and moderately vulnerable )	Poor : 2 ovine, 2 goats and 2 donkeys		
Indicator 3.2:- Number and types of activities/income generating enterprises or alternative sources of incomes introduced and adopted.	0		
Indicator 4.1: Number of institutions (unions, groupings or associations) of management of the area created and made dynamic.	9 fishermen cooperatives		
	48 women groupings, 25 of them are functioning.		
	1 male grouping		
Indicator 4.2 : - Number or type of plans, programs, projects or agreements for the management of the area approved or implemented	1		
Indicator 4.3 : - Number of lessons and good practices capitalized in the framework of the COMDEKS program	0		

### Appendix 3: Bibliography

1. Ministry of Hydraulics, Environment and Fight against desertification, 2010 (2010). Integrated Project for the development of the resources of the pond of Tabalak, 73 pages
2. International Institute for Sustainable Development (IISD), 2012: Evaluation of Climatic risks on the pond of Tabalak. 103 pages
3. Project for the Fight against Poverty (LUCOP) (2009): Study for setting up some concerted and sustainable management mechanisms around the pond of Tabalak, 87 pages
4. Rural Commune of Tabalak (2010). Communal Development Plan of Tabalak (2010-2014). 109 pages

## Appendix 10: Simplified scheme of the present functioning of the landscape

Climatic factorsAnthropic Factors





## Appendix 11 : A few pictures of the pond of Tabalak







## Appendix 12 : Few images during the evaluation



View of the general meeting community outside the headquarters of the municipality of Tabalak



Interview with gardening women



Interview with traditional healers



Interview with men



Interview with disabilities



Interview with farmers



Interview with artisans



Interview with cattle-breeders



Interview with local councillors