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<u>Title of the project</u>: Promotion of a participatory approach for a sustainable management of mangrove resources in Togo

FINAL REPORT



Public meeting of senziting and sharing the results of the studies with local communities in Agouégan (mangrove village in the south of Togo), July 2006

Photo ANCE-Togo, July 2006

July 2007

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THANKS

- 1. ANCE TOGO and its affiliated members, partner's organisations and friends would like to thanks the RUFFORD FOUNDATION for its financial support. Without this support, this project would have not been implemented.
- 2. ANCE-TOGO would also thank the Directorate of Fauna and Hunting in Togo, the Ministry of Environment and Mangrove Action Project (Map) for their letter of recommendation to support our application to this donor.
- 3. A great thank particularly to local communities of Zebe, Agokpame, Agouegan, Seko, Djeta, Zanve, Agbananken, Togodo, Azime and Adame for their acceptance to cooperate and to be closely involved in the project by providing each a representative per village to be involved in the project team.
- 5. All those who in one way or another have contributed to the success of this project, please receive here our best thanks.

INTRODUCTION

Since 2002, ANCE-Togo has stated small mangrove conservation projects in this region. On February 02, 2004, during the celebration of the World Wetlands Day, ANCE-Togo had organized several meetings of information on the necessity to protect the Togolese mangroves. The basic partners for these activities were the Communities Basic Organisation (CBO) of the villages located along the channel of Gbaga, mangroves zones in Togo (Zebe, Agokpame, Agouegan, Seko, Djeta, Zanve, and Agbananken) and other surrounding villages like Togodo, Azime and Adame, that is to say a total of 10 villages of the South-East of Togo.

Since this period, ANCE-Togo has built a fruitful relationship with the local populations of mangrove zones. In June 2003, five local communities approached ANCE-Togo to assist them to initiate several programs to plant mangroves in the degraded zones. Since this time, more than 12 hectares of mangrove are regenerated on a total of 3200 hectares degraded. In Togo, the situation of mangroves is very alarming. The surface of the mangroves which was 4000 hectares in 1988, passed to 2000 hectares in 1995 and to 800 hectares only in 2004, that is to say a disappearance of more than 4/5 of the total surface of mangroves. mangrove's ecosystems are threatened of disappearance. It becomes urgent to undertake concrete actions of information, training. lobbying/advocacy.

That is why, in May, 2006, ANCE had initiated in partnership with the aforementioned local communities a project which aims to promote a participatory approach for a sustainable management of mangrove resources in Togo and to rehabilitate one hectare of mangrove in Agouegan. This project was funded by Rufford Foundation through its Small Grant Program. This project started in August 2006 and after 11 months of activities, the project has reached its expected results and we are happy to submit this report.

I. PRELIMINARY ACTIVITIES

1.1. Contact and exchanges with stakeholders were organised

The project has started with several contacts with targets groups and other stakeholders. This activity has covered the period of August 15 to September 15, 2006. An ANCE's delegation has met with the General Director of Fauna and Hunting (authority in charge of mangroves issues). It was a real occasion to discuss about the project with this authority. He has designated a representative to participate to the project coordination.

After this first contact, several meetings and exchanges were organised in the project zone. 10 villages were visited in particular, the village of Zebe, Agokpame, Agouegan, Seko, Djeta, Zanve, Agbananken, Togodo, Azime and Adame. The local authorities of these localities have accepted to cooperate and to be closely involved in the project. 1 representative per village was designated to be involved in the project team.

1.2. The project team was set up, reinforced and operational

The project team includes 2 representatives of ANCE (1 specialist of mangrove regeneration and 1 specialist of rural activities planning), 1 representative of the Directorate of Fauna and Hunting (representing the Government interests) and 10 representatives of villages, 1 per village.

The project team has been then invited for a two days workshop in Lomé. This workshop aims to reinforce the technical capabilities of the project team on the various aspects of the project to distribute and to plan actions between the members of the team according to their competences. After these two days training, the participants acquired sufficient knowledge on the socio-economic importance of mangroves, mangroves regeneration, the concepts of promotion of income generating activities, etc. They also obtained information on the objectives of the project, the expected results, planned activities and the budget. Several discussions on strategies and methodology for the project success took place.



Training of the project team in the cultural centre of Aného, project zone from 5 to 6 October 2006

Photo ANCE-Togo, October 2006

1.3. Meeting of explanation to experts

The announcement of experts' recruitment for investigation activities in mangrove zone was lunched. After getting the results of tenders, it has shown that each expert request a minimum of 1000 £ Sterling for his expertise. That means for all the studies we must affect a total budget of 4000 £ Sterling whereas the budget available is 1200 £ Sterling. To resolve this problem it was necessary to convince the experts to reduce the cost of their expertise. That it why a meeting of clarification and explanation was organized on October 2006 in Hotel Résidence SITTO in Lomé. During this meeting, it was exposed to the experts the total budget of the project and the amount available for this activity. Then, it was explained to them that it is an organization in Great Britain which supported ANCE and it is necessary that all the citizens contribute also by providing their time and expertise for the realisation of this project. It was then requested from each expert to accept to provide their expertise for an amount of 300 £ Sterling per expertise. After this meeting, the experts agreed to do this work with the proposed amount.

II. TECHNICAL DATA ON MANGROVE ECOSYSTEMS ARE COLLECTED IN THE PROJECT ZONE

Three terms of reference were elaborated for experts' recruitment and three studies were carried out in the project zone. Those studies include the forestry inventory, the socio-economic study and the environmental and legal impact. After three months of investigation in the project zone, the experts provide to ANCE a full report. All those reports are attached in this following report. Another problem was that during the planning of the project, it was not mentioned in the budget the cost of translation of documents from French to English. All the investigations were done in French but no money available for their translation into English. The approximately amount for each translation is 600 £ Sterling, so we need a total amount of euros 2400 £ Sterling to translate the three documents and the management plan elaborated into English.

Summary of the result of the studies

<u>The forestry inventory:</u> The studies revealed that the mangrove ecosystems of Gbaga Channel (South-East of Togo) contain several animals and vegetable species. According to this study the following vegetable species in the table bellow are threatened of disappearance:

Table 1: Vegetable species threatened of disappearance in mangrove ecosystems of Gbaga Channel in Togo

SPECIES	FAMILY	LOCALITY	
Avicennia germinans	Avicenniaceae	Gbaga Channel	
Conocarpus erectus	Combretaceae	Mangrove of Sarakawa (Lomé)	
Chtysobalanus icaco subsp icaco Ficus trichopoda	Chrysobalanaceae	Village of Séko and Agouégan	
Rhizophora racemosa	Moraceae Rhizophoraceae	Village of Zanvé Gbaga Channel	

Table 2: Animal species threatened of disappearance in mangrove ecosystems of Gbaga Channel in Togo

Species	Actual Statute	Legal Statute		
		in Togo	International (CITES convention)	
Mammal				
Hippopotamus	Threatened of	Α	Annexe II Annexe I	
amphibus	disappearance Threatened	Α		
Trichechus	of disappearance			
senegalensis				
Birds				
Ardea cinerea	Vulnerable	В	Annexe II Annexe I	
Actophilormis africana	Vulnerable			
Reptiles				
Crocodylus noloticus	vulnerable	С	Annexe I	
Crocodylus	vulnerable	С	Annexe I	
cataphractus	vulnerable	С	Annexe II	
Python sebae	vulnerable	С	Annexe II	
Python reguis	vulnerable	С	Annexe II	
Varanus niioticus				

Recommendations of the study

- ✓ Necessity to promote the conservation of the rare species and threatened of disappearance in the wetlands and of the mangrove zones in a protected areas.
- ✓ It is urgent to make an exhaustive inventory of species in the zone in partnership with the local populations, to define and delimit the wetlands and mangroves zone to be preserved. For this end, a study of the constituent elements of these surfaces must be carried out in order to have the data on their biology for an adequate follow-up.
- ✓ It will be significant to accompany the populations of Adamé in their effort of conservation of their small sacred forest. This forest could be transformed into community forest, jointly managed by ANCE and the villagers.
- ✓ To promote the restoration of the mangroves already degraded through a vast program of reforestation
- ✓ To promote a conservation ex situ of some rare species by the creation of suitable zones. The breeding of rare animal species and threatened of disappearance such as the manatee in the natural or artificial ponds must be undertaken.
- ✓ To promote the development of the integrated and multisector systems of management. Some income generating activities such as oyster production, fish production, etc., must be promoted. In the easily flooded zones, the promotion of the rice culture would be welcome. One could also plant the sugar in some easily flooded zones.

These Income Generating Activities must be defined in partnership with the local actors, NGOs, the financial partners and the Department of State in charge of mangroves. The sylviculture will not be limited only to the mangroves species, but to all other species which will be able to make it possible to restore the vast wide zones degraded. The promotion of agroforestery by using the fertilizing gasoline (Albizza spp) must be encouraged. The success of this sylviculture and the agroforestery will make it possible to provide wood and to reduce the human pressures on the mangrove resources. The vegetable growing must be developed in order to help rural women in their daily efforts of subsistence.

- ✓ The development and promotion of ecotourism is highly encouraged. The
 mangroves and ponds contain significant vegetable and animal resources.
 They should then be arranged at tourist ends. The ponds of Seko, of Zanvé
 and Djeta can in particular be arranged for this purpose because of their high
 degree of biodiversity.
- ✓ Reinforcement of the regional and international co-operation for a concerted management of mangrove resources between Togo and the Benin. The Gbaga channel which is used as border between Togo and Benin contain on both sides mangroves which unfortunately are much degraded. To this end, it would be essential that the official institutions intervening in the management of wet ecosystems in the two countries prepare bilateral programs in order to restore these ecosystems for their conservation and sustainable use.

The socio-economic study

The results of the study are:

- It results from the analysis of the demographic data that the project will touch nearly 28.1 % and 0.26 % of the populations respectively in the prefectures of the Lacs and Vô. Among this population, 28.9 % in the Lakes and 38.5 % in Vô are household's agriculture whose size is respectively 5.5 and 5.8 people. On the level of each village, the social organization structure is dominated by the Village Committees for Development (CVD) established by the leading authorities (heads and their notable).
- The main principal activities of the local communities are: agricultural (productions such food crops, cultures of palm, trees and coconuts), livestock productions (practised in a marginal way), fishing (nowadays less prosperous than formerly), the craft industry, (not well developed), the transformation of manioc into gari and tapioca (local food), trade of agricultural produces and various manufactured goods. These activities represent the principal sources of incomes for local communities. Among these activities must be added the high exploitation of mangrove resources (wood and other animal species) for their survival. The level of the incomes is very modest for the households of the zone. It is made up for 52.8 % by cultures, 8.7 % by breeding and 15.2% by the processing and manufacture, 14.3 % by trade and 9 % by vegetable growing (tomatos, vegetables etc).
- Regarding halieutic resources, several species are in particular met in this zone (the species of marine and continental origin). The fauna of the

mangroves and the associated wetlands is made up of crustacean, molluscs, varans and several species of fish. All the equipment using for the transformation of mangrove resources are traditional one. In terms of mangrove resources exploitation, no method of sustainability is promoted by communities.

- The resources are overexploited.
- There is no specific legislation for mangrove conservation in Togo. The general legislation which forest and wetland. To the national legislation must be added the international agreement ratified by Togo such as the Convention of Ramsar, CITES, biodiversity, etc.
- The general income generating activities to be promoted for the sustainable conservation of mangrove ecosystems are sylviculture, oyster production, breeding, craft industry and ecotourism. The zone is very rich in biodiversity and the national and international tourism must be promoted in this zone.

Recommendations of the study

Short and medium term actions to be carried

For a sustainable conservation of mangrove ecosystems in this zone, it is urgent to:

- ✓ to reinforce the technical capacities of the Village Committees for Development (CVD) in each village and if possible establish a local group with small equipment such as an office, computer and documentation centre for villagers, etc.
- ✓ to create a framework of collaboration among communities and promote community activities (public regeneration with communities)
- ✓ to define and establish local mechanisms and structures of coordination of the development and application of educational and awareness rising programs
- √ To promote appropriate legal and economic instruments for mangrove ecosystems conservation
- ✓ Regeneration of degraded mangrove forests
- ✓ Promotion of income generating activities
- ✓ Adjustment of the piscicultural agro ecosystems with small projects in the fields of fishing, aquiculture and rice growing
- ✓ Establishment by the State (with the active participation of all stakeholders working in this zone) of structure of coordination which role must be the policies development, identification and planning, fundraising, etc.
- ✓ Promotion of ecotourism

The environmental impact

This study has revealed important information about the causes of degradation of mangrove ecosystems in Togo. These causes are:

a. Construction of infrastructures and houses dwelling

The inhabitants of the zone use for the construction of their houses mangroves wood. In the same way public schools, markets and other places are also built with wood mangroves. The need for mangrove wood is very high but the communities do not undertake any program of forestation.

b. Inappropriate agriculture practices and vegetable growing

The local communities usually destroy several trees to install food crops and for vegetable growing. The arable lands are very rare so that peasants cut down drills galleries and the mangrove zones for more fertile soils.

c. Bush fires and pasture land

The annual practice of bush fires by ox stockbreeders for the pasture land damages vast mangrove forests each year.

d. The artisanal construction of fishing machines and other inadequate fishing practice

The mangrove wood is also used for in the artisanal construction of machines and the fishing materials. There are a very significant number of small sinners in this zone with very rudimentary fishing instruments so that the halieutic resources are overexploited. The sinners of the zone recognize that the fishing outputs dropped considerably since five years and that some animal species disappeared from the captures. The analysis of the sector showed that the principal factor of the degradation of those resources is the overexploitation of the water levels (FAO, 1995).

e. Demographic Pressure

The demographic growth of the population of the zone is also another significant factor of degradation of mangroves resources. Indeed, the demographic explosion is one of the principal causes of the erosion of the biodiversity. The rate of the population's growth is about 2.6% per annum and the local communities for their survival needs destroy each year a lot of mangrove forests for agriculture, housing building, the establishment of the infrastructures, etc.

f. The extreme poverty of the inhabitants of the zone

According to the diagnostic study on poverty in Togo realized in 1994, 72.6% of the Togolese populations are poor. This poverty touches more the populations of mangrove zones where the rate of poverty is more than 81.1%. The women, children and old men in mangrove zones live in an extreme poverty.

g. Environmental pollution

The company called International Fertilizer Group –Togo (IFG-Togo) is discharging untreated toxic waste into the sea in Kpémé (South of Togo). The discharged wastes are very rich on Cd, Cr, Cu, Ni, V, Zn, Ba, Sr, F, etc. Those toxic substances are concentrated on water drink by the local communities, on aquatic animals, on food, on soil, air and all the environment of the surrounding populations. The aquatic ecosystems of that locally which contain migrating species in particular mammals (Whale, Dauphin etc), reptiles (tortoises), birds, whales, crocodiles, hippopotamus, are in the process of disappearance. This polluted water are flown into the sea and then into the mangrove zones. One notes a yellowing of the mangrove sheets of due to this pollution.

Lastly, the construction of the dam of Nangbéto has significant effects on survival of some mangrove species, because it modifies the flow of the rivers and their alluvial load.

Recommendations of the study

For sustainable management of mangrove ecosystems, it is recommended to create local committees of follow-up and management of these resources and to strength the technical and institutional capacities of those committees.

III. INFORMATION AND TRAINING OF STAKEHOLDERS ON THE SOCIO ECONOMIC AND ENVIRONMENTAL IMPORTANCE OF MANGROVES

1. Meeting of sharing of the results of studies with local communities

Several meetings have been organised in the project zone to share the result of the study with the communities. In the total, 10 meetings have been organiser (1 per village). A national meeting have also been organised in Lomé (capital of Togo) with technical Department of States, the University of Lomé, NGOs and journalists. Information on the summary of the results of the study was provided to all participants and electronic copies of studies were also dent to participants on request. Three live radio programs were organised in French Lomé and in a community radio in Aného (5 km from the project zone) in the local tongue (Mina). More than 3000 persons are well informed on the socio-economic importance of mangrove ecosystems and the necessity to promote their sustainable conservation.



Public meeting of senziting and sharing the results of the studies with local communities in Agouégan (mangrove village in the south of Togo)

2. The technical capacities of local communities in 10 villages are reinforced

ANCE-Togo had organised 10 local workshops to reinforce the technical capacities of local communities on mangrove regeneration and the wood exploitation. Those activities were carried from October 09 to October 21, 2006. The main goal of these activities is to sensitize, educate and train local communities on the importance of mangroves and the methods of access and exploitation of natural resources. In each of the 10 villages, a local public meeting was organised as well as 1 closed workshop for 50 participants for local community radios, CBOs, farmers associations and selected individuals living with mangrove resources and campaign to local schools. A committee of 10 members was set up in each village for follow up of the recommendations of the workshop.



Participants during the meeting held in Agouégan on October 9, 2006

3. The technical capacities of stakeholders are strenghtened

ANCE has organised a three days meeting in Lomé to reinforce the technical capacities of stakeholders on mangrove resources management. Several contacts and exchanges were organised from November 06 to November 16, 2006 and a three days workshop was organised in the Hotel Residence SITTO in Lomé from November 28 to 30, 2006. More than 150 participants attended this meeting. The participants came from the representatives of local communities, the Technical Departments of State, NGOs and journalists among which public and private. Several interviews were granted and the workshop was reported in the national television (TVT) and in 2 private televisions such as TV7 and TV2.



Dr Ebeh Adayade Kodjo, granting an interview during the three days training meeting held in Lomé Résidence SITTO, from 28 to 30, 2006.

IV. A SUSTAINABLE MANGROVE MANAGEMENT PLAN IS ELABORATED AND VALIDATED

After obtaining the results on studies, an expert was committed to elaborate a sustainable management plan for mangrove conservation. The draft of the plan was elaborated and validate during a three days meeting in Hotel Résidence SITTO in Lomé. At this meeting, all the identified stakeholders have attended, in particular representatives of 10 villages concerned, the Directorate of Fauna and Hunting in charge of mangroves conservation, other NGOs and journalists. In total, 55 participants attended this meeting.



Public meeting of validation of mangroves management plans in Hotel Residence SITTO, Lomé on February 2007 Photo ANCE-Togo, 2007

V. LOBBYING AND ADVOCACY ACTIVITIES FOR ADOPTION OF THE ADOPTED MANGROVES MANAGEMENT PLAN

From February to June 2007, ANCE's delegates and representatives of communities have met several Togolese authorities to discuss about the implementation of the sustainable management adopted. The delegations have met and discuss with the Minister of Environment of forest resources, the General Director of Environment, the General Director of Fauna and Hunting and the second Deputy President of the national Assembly. All these authorities recognised the quality of information provide by the management plan elaborated and promised to promote his implementation.

VI. INSTALLATION OF VILLAGE SEEDBEDS AND REGENERATION OF ONE HECTARE DEGRADED MANGROVE IN AGOUEGAN

ANCE-Togo installed a field of seedbeds in the 10 villages concerned by the project. These fields made it possible to make training sessions by Farmer Field School to transfer technology to the local communities on the realization of seedbeds. These trainings were carried out by more than 50 volunteers of ANCE. In total, more than 3000 peasants were trained on the methods of setting-up of seedbeds.

Moreover, ANCE had planted in Agouégan one hectare of mangroves by the same Farmer Field School method which also made it possible to train approximately 1000 peasants on techniques of regeneration of mangroves. The local communities were very proud to be associated to these training meetings and wished that ANCE initiate each three months such training sessions.



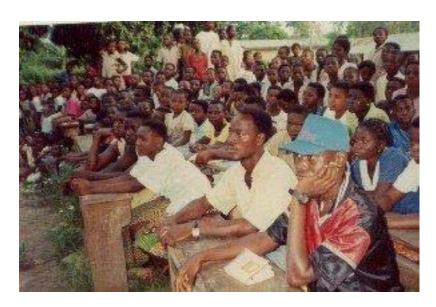
One hectare of regenerated mangrove forest in Agouégan, Photo ANCE-Togo, July 2007

VII. DIFFUSION OF BEEKEEPING AND OYSTER PRODUCTION TECHNIQUES MORE ADAPTED

The rate of poverty in mangrove zone is 76.1% and this zone is a zone of o high density of population. The mangrove ecosystems and their associated wet formations are the only resource for the survival of local communities and they are therefore threatened of disappearance. In Togo for example the surface of the mangroves knew a reduction of 50% in less than ten years.

The main causes of degradation of the mangroves are the exploitation of halieutic resources and the poaching, the abuse use of watery animal species like fish, crustacean and molluscs, the bush fires in agriculture, hunting and breeding involving the degradation and the disappearance of mangroves, the demographic growth of the local population. To reduce the human pressure on these natural resources, it is then urgent to promote beekeeping and oyster production techniques more adapted as well us other income generating activities identified in the zone.

That is why ANCE, after several contacts and exchanges with local communities, ANCE in partnership with the Faculty of Sciences of the University of Lomé had organised training sessions on beekeeping, oyster production, organic agriculture and local soap production in each village. More than 1000 participants had attended these meetings from May to June 2007. The participants had asked ANCE to assist them to mobilise financial and technical resources to implement pilot project on beekeeping and oyster production.



Training meeting on beekeeping and oyster production in Zalivé Photo ANCE-Togo, June 2007

VIII. GENERAL EVALUATION OF THE PROJECT

A sheet of evaluation is distributed to the participants during each workshop or press conference. This evaluation includes a daily evaluation of carried activities and a final evaluation. After examination and synthesis of all points of view of each participant, 92.3% of the participants declared have been satisfied of the results of the topics and communications of the workshop, the program and the organisational means. 7.7% have estimated that the level of communications is very high, in particular the explanation on the technical results of investigation on mangrove areas.

On the question of the number of days devoted to the workshops, 51% of the participants estimate that it was necessary to devote seven days to the training workshops instead of three days. 49% estimate that the three days are sufficient.

The activities knew a strong participation of the local communities and the rate of participation of the local communities was estimated at 96.22%. This effective participation of the communities allowed the success of the project.

The workshop moreover knew a weak rate of participation of women (11%). It is necessary to find a way to promote gender issues in various technical Department of State and other NGOs for effective participation of women in workshops.

For ANCE, the promotion of gender issues is an objective of development which is entirely integrated to all our programs. The Togolese population passed from 4.629.000 inhabitants into 2000 to 4.970.000 inhabitants into 2003, with 51.3% women and 48.7% men. Considering those scores, no development can be expected without the promotion of women which represents 51.3% of the population.

CONCLUSION

After the present project, other project was identified as necessary for sustainability of this project. Those projects are:

- 1. Promotion of aquaculture in the project zone
- 2. Promotion of ecotourism: the project zone presents a very high level of biodiversity. Several pounds in Agouégan, Séko and Zalivé could be organised to promote tourism. Mangrove forest in Adamé and Togodo could also play this role. There is also hippopotamus in a river called Mono in the project zone but which are unfortunately threatened of disappearance. It is important to develop a project of conservation of these species.
- 3. A large program of regeneration of mangrove forest must be initiated and implement in the zone.

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