

# CONCEPTS IN PROJECT TECHNICAL COOPERATION: WATER HYACINTH CONTROL EFFORTS ON KAINJI LAKE

## KEYNOTE ADDRESS

M. MDAIHLI (Mrs)\*

*Project for Protection of Forests Around Akwaya (PROFA)  
Manfe, Republic of Cameroon.*

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The Hon. Minister of Agriculture,  
The Hon. Minister of Environment,  
The Permanent Secretary, Ecological Funds Office,  
Directors, Scientists, Invited Guests,  
Ladies and Gentlemen.

### OPENING REMARKS

First of all, let me thank the organizers of this conference for keeping to their promise not to forget me so soon after serving for over seven years in New Bussa as the Project Adviser of the Nigeria-German Kainji Lake Fisheries Promotion Project (N/G KLFPP). But since accepting your invitation to this conference, I have been asking why I should still be chosen to give the keynote address in spite of the more capable experts on the water hyacinth subject

matter in Nigeria. Soon I came to the inevitable conclusion that your reason for inviting me to address your International conference on water hyacinth is simply a ploy to rekindle in me yet another homecoming feeling for Nigeria and its good people that I have come to love so much.

Now, with respect to the topic of the conference, please permit me to quickly confess that I am neither a water hyacinth biologist nor a water hyacinth barrier construction engineer. Consequently, I shall limit the scope of this address to

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*\*Mrs MdaihlI was the foundation Project Adviser of the Nigerian-German (GTZ) Kainji Lake Fisheries Promotion Project (KLFPP), New Bussa, Nigeria from 1993-1999. She is currently Project Adviser, Cameroonian-German Project for Protection of Forests Around Akwaya (PROFA).*

investigating the reasons why the German-Nigerian co-operation on control of water hyacinth was successful on Kainji Lake. Whereas many internationally assisted projects elsewhere have failed possibly because certain requirements for successful project execution, sustainability of project results and achievement of long lasting project impact were not well considered and fulfilled.

### **CONCEPTS IN GERMAN TECHNICAL CO-OPERATION**

After over thirty years of experience and changing concepts, the German Technical Co-operation now considers developmental projects as measures of partner countries to improve a certain (problematical) outset situation of a certain target group in a socio-economic development process. In the context of bilateral economic co-operation, the project, is therefore a project of the partner country, executed with technical assistance from Germany. In the literature, and in day-to-day discussions among developmental experts, the importance of participation of the target group in planning, implementation and monitoring is emphasized over and over to ensure success of any developmental measure.

Nevertheless, it is a strong concern of the German Technical Co-operation that while participation in the sense described above is a prerequisite for projects success, yet participation alone is no guarantor for success.

### **REQUIREMENTS OF SUCCESSFUL PROJECT IMPLEMENTATION**

The success or failure of internationally supported development projects can

be traced to the degree of attention or otherwise paid to the criteria listed below:

1. That stakeholders in the partner country realise the existence of a situation that prevents socio-economic development to take place, and that there is the political will in the partner country to solve the identified problem;
2. That there is problem awareness within the target population and their traditional leadership, and that there is willingness and physical ability to contribute to the problem solution;
3. That a well focused and articulated programme is developed to solve the problem identified, and that there are financial means made available to contribute to the problem solving process;
4. That dedicated and qualified personnel in the partner country exists to contribute to the solution of the problem;
5. That there is a certain degree of political stability to ensure the continuity of the process of project execution.

It is instructive to note that criteria 3 - 5 are the requirements that both the owner country of the project as well as the project supporting country have to fulfil. Also, that though the above listed requirements may sound simple and obvious, yet if projects that have failed are analysed using those criteria, it will become clear that failures are due largely to lack of fulfilment of those same factors right from project start.

## THE NIGERIAN-GERMAN KAINJI LAKE FISHERIES PROJECT

The Nigerian-German Kainji Lake Fisheries Promotion Project (KLFPP) took off in 1993 strictly on request of the Federal Government of Nigeria, represented by the National Institute for Freshwater Fisheries Research (NIFFR) and the Federal Department of Fisheries, primarily to prepare and implement a fisheries management plan for the sustainable exploitation of the aquatic resources of Kainji Lake. At the time of project identification the control of aquatic vegetation was not part of the mandate of the KLFPP.

Before the end of the orientation phase, water hyacinth control on Lake Kainji became one of the major components of the project and subsequently a success story of the KLFPP. The reasons for the success of the water hyacinth control program became obvious as follows;

**1. The stakeholders in Nigeria realized the existence of a situation that prevented socio-economic development to take place and there was the political will in Nigeria to solve the identified problem.**

Based on earlier hydrological turnover rates, Kainji Lake was predicted to remain aquatic weed free for a long time. In 1977, approximately 9% of the Lake surface were covered by aquatic vegetation, mainly *Echinochloa* spp (Niger Grass). By 1984, at high flood, up to 28% of the lake surface area was covered by vascular plants which was estimated to be able to reach up to 40%. Despite those earlier projections, aquatic vegetation continued to expand slowly on

Kainji Lake until 1989, when mats of floating water hyacinth (*Eichhornia crassipes*) suddenly arrived on the Lake.

The then Director of the National Institute for Freshwater Fisheries Research (NIFFR), Dr. J.S.O. Ayeni in close dialogue with the Emir of Borgu, Alhaji Musa Mohammed (Kigera III) of blessed memory, realised the potential problems the infestation of Kainji Lake by water hyacinth could cause to hydro-electric power generation through loss of water from evapotranspiration as well as to navigation, irrigation, fisheries and flood control, alarmed the Presidency through the defunct Natural Resources Conservation Council (NARESCON) that was later merged with the Federal Environmental Protection Agency.

Alhaji A.R.K Saba, the Executive Secretary of NARESCON processed the request of NIFFR to the then Secretary to Government, Alhaji Aminu Saleh (Sarkin Yaki) who promptly obtained approval of financial support from the Presidency through the Ecological Funds Office to enable NIFFR to initiate the aquatic vegetation control program in 1994.

Thus it is clear that the political class was sensitized and showed commitment to solve the water hyacinth problem at the Local, State and Federal Government levels.

The Federal Government of Nigeria even went a step further (through its National Planning Commission) by urging the KLFPP to support one of its counterpart institutions (NIFFR) by incorporating Water Hyacinth Control on Kainji Lake into the Project's mandate.

**2. Problem awareness of a target population around the Kainji Lake and their traditional leadership, as well as the willingness and physical ability of the same to contribute to the water hyacinth control program was high.**

The fisher folk of Kainji Lake had soon after arrival of the first mats of water hyacinth discovered that the weed is harmful in many ways: it sends away fish, it harbours snakes, it prevents navigation, blocks beaches, dislodges gillnets, kills livestock, and kills out the harvestable delicious and nutritious grazing stocks of Niger grass preferred and relished by livestock during the dry season.

Among others, public awareness on the extremely fast reproductive rate of the weed was created in an enlightenment campaign that was led by one of the most influential traditional leaders in the Kainji Lake basin, the Emir of Borgu, supported by his colleagues, the Emirs of Yauri and Kontagora.

Participants at the extension campaign included officials and scientists of the Fisheries Divisions of Niger and Kebbi States, the National Institute for Freshwater Fisheries Research and the international advisers of the KLFPP.

To sustain awareness and to convince the communities that they would have to initiate self-help activities before additional help comes from the Federal Government radio programmes, jingles, village singers, posters and drama groups were used for extension.

Competition was initiated between villages to identify the most active ones

in the physical removal of the water hyacinth from the beaches and the winners were given prizes.

The villagers responded positively to the efforts of their traditional leaders and the government officials and removed in 1995-1996 about one million metric tons of weeds, free of charge and without any cash payment or incentives.

**3. A focused and articulated program was developed to solve the problem of water hyacinth scourge on Kainji Lake and there were financial means made available to contribute to the problem solving process.**

For the control of water hyacinth, an approach was chosen that combined biological and manual control efforts with the construction of a floating barrier.

The idea behind this was that as an immediate measure to clear the beaches the communities should get themselves involved in manual removal of the existing water hyacinth mats for drying and burning thereafter. To weaken the newly arriving weed on their way through Kainji Lake down the River Niger to the coast different species of insect weevils were released that fed entirely on the flowers, leaves and stems of water hyacinth.

For a long lasting solution and to support the local communities in their effort to keep Kainji Lake weed free a water hyacinth barrier was constructed to prevent newly arriving plants from entering into the lake.

It can safely be said that taken separately, none of the control measures investigated could alone have achieved

the set target to manage water hyacinth. Thus the deployment of the combination of control methods to manage water hyacinth is a unique Kainji Lake experience worthy of publicizing and extension to other African lakes and rivers. In other words, the stakeholders and interest groups, scientists and Government Officers around Kainji Lake had to, and indeed developed their own, appropriate approach.

The Federal Government of Nigeria made between 1994 and 1999 the following funds available:

- 25 million Naira at instalments of ₦5 million/year for research and extension on control of aquatic weeds on Kainji Lake,
- 20 million Naira was later made available as counterpart contribution for water hyacinth control behind the water hyacinth barrier erected between Rofia and Zamare in the north of Kainji Lake, and further sums of money pledged to NIFFR to ensure permanent maintenance of the water hyacinth barrier.
- During the same period, the German Government contributed to Nigeria 65 million Naira for the design, construction and installation of the water hyacinth barrier. Additional 500,000 Naira for purchasing of biological control agents from the IITA in Cotonou, Benin Republic, and technical advice/training for the development and execution of the aquatic weed control program on Kainji Lake was made available by the KLFPP.

Thus, in the case of water hyacinth control on Kainji Lake it is justified to say that both the German and Nigerian Governments pulled their resources together and contributed almost equal amounts to combat the scourge.

#### **4. Dedicated and qualified personnel in Nigeria contributed to solving of the water hyacinth problem on Lake Kainji**

A number of people of different professional and social background and from different governmental and non-governmental institutions guaranteed the success of the water hyacinth control program on Kainji Lake

- The *traditional authorities* around the Lake, especially the late Emir of Borgu, Alhaji Musa Mohammed Kigera III was pioneer with the Institute and Project in problem identification, in sourcing for the necessary funds. He even personally led the extension campaign across the villages around Kainji Lake and monitored the clearing activities of the beaches.
- Dr. J.S.O. Ayeni, in his capacity as the Director NIFFR initiated the development of the water hyacinth control program, sourced for funds, and was the brain and the soul of all water hyacinth control activities during his tenure. He later, in his capacity as a Consultant to the KLFP supervised the design, construction and installation of the water hyacinth barrier.
- Dr. E.Nwadinobi from the National Planning Commission together with Mr Etuk from the Ministry of

Foreign Affairs of the Federal Republic of Nigeria monitored the diplomatic exchange of requests and notes between Nigeria and Germany, especially with regards to the incorporation of the water hyacinth control activities and funding into the program of KLFPP and ensured that the counterpart contribution released for the water hyacinth barrier was not diverted for other project purposes,

- Mr. F. Daddy as a research officer of NIFFR co-ordinated at working level the activities of the water hyacinth control program and became the leading counterpart of the KLFPP on the same subject matter. Professor E.A. Obot spent his sabbatical leave assisting the Aquatic Vegetation Unit of the Institute,
- Although you might say that he was already paid for his job well done, yet I must not fail to recognize contribution of the local indigenous Submarine Engineers Ltd., that worked tirelessly to construct the water hyacinth barrier with minimal need for external supervision, and did not disappear with advance payments to his nominated bankers,
- Finally, Mr. K. Bruening from the GTZ headquarters guaranteed the timely release of German funds to support the water hyacinth control program and had understanding for obstacles, problems, difficulties, delays etc.,

I am sure that you all agree with me that the results of the water hyacinth control program on Kainji Lake would never have been achieved if those people

above and many others who could not have all been mentioned here would not have come together to form a working team that is worthy to be given the name team. Therefore permit me to use this opportunity to thank all those who worked tirelessly to make the water hyacinth control program the success that we can celebrate through this conference today.

#### **5. Political stability to ensure continuity of the process of project execution.**

During the period served by myself advising on water hyacinth control on Kainji Lake from April 1993 till December 1999, Nigeria had four different Heads of State and five different Ministers of State for Agriculture and Natural Resources. The Administrators of Niger State and Kebbi States also changed four times, while the KLFPP experienced four Directors/Acting Directors of NIFFR.

FEPA changed its leadership thrice, the National Planning Commission offered two different contact persons for the Project's implementation committee meetings and at Ministry of Foreign Affairs level at least three different officers were referred to concerning the Water Hyacinth Control Program.

The water hyacinth control program was lucky that all those who took over from their predecessors could equally be convinced that control of water hyacinth on Kainji Lake is a task of National dimension. One can only conjecture as to what effects the internal stability within the water hyacinth control environment had on the success of the program.

For instance, that the GTZ maintained its country head for Nigeria for the entire life time of the project, the GTZ Contact Person i.e. the Project Adviser of the KLFPP remained the same for seven years, and that for project success the extremely important Emir of Borgu was with us for seven years of water hyacinth control program execution while the founder of the program, Dr. J.S.O. Ayeni was able to monitor the water hyacinth control progress throughout the same seven-year-period.

### **CLOSING REMARKS**

As the saying goes, "for everything that has a beginning, there must also be an end". The time has come to wind up and hand over to Nigeria the development activities of the KLFPP over the remaining project life of approximately next two years. Both the GTZ and the partner country deserve a pat on the back for the several tangible deliverables that are worthy of both handing- as well as taking-over. As a part of NIFFR's co-operation within the KLFPP, the water hyacinth barrier now in place and functioning well, together with developed unique research and combined approaches of controlling water hyacinth constitute such landmark

achievement and commendable deliverables. It is also about time now for NIFFR to develop the capacity needed to enable the States and the Local Government Councils around the lake take over the responsibility to maintain the water hyacinth barrier as well as ensure removal of aquatic weeds retained upstream of the barrier.

On the national front, one can only expect that NIFFR will now extend the experiences acquired over the years on water hyacinth control to other similarly affected lakes and rivers throughout Nigeria. Certainly, the medium of this international conference should serve to publicize their consultancy capabilities in the specialized area of water hyacinth control if not world-wide but at least to the rest of West African sub-region particularly within the ECOWAS areas colonized by the weed.

Once again, I congratulate the organisers of this conference for choosing such a worthwhile topic of international interest. I congratulate NIFFR for hosting and co-financing the conference in spite of tight budgetary constraints.

Finally, I wish you fruitful deliberations at the conference.

