

RECONCILE
Resources Conflict Institute

28th September, 1999

Mr. Harold E. Wackman
Country Director
The World Bank
P O Box 30577
NAIROBI

Dear Mr. Wackman,

LVEMP - Mechanical Removal of Water Hyacinth at the Nyanza Gulf Request for Inspection

We have addressed a Request for Inspection to the Inspection Panel of the World Bank in the envelope accompanying this letter.

Pursuant to paragraph 14 of the Inspection Panel's Operating Procedures, we wish to deliver the Request to the Panel through your office.

Kindly issue a receipt for the Request as stipulated in the said paragraph 14 of the Operating Procedures, and transmit the Request to the Panel in the manner provided.

Yours Sincerely,

Michael Ochieng Odhiambo
Executive Director

C.C. Executive Secretary
Inspection Panel
Fax No. 202 - 477 - 6391

RECONCILE
Resources Conflict Institute

27th September, 1999

The Inspection Panel
1818 H Street, NW
Washington, DC 20433 USA

We, the Resources Conflict Institute (RECONCILE), acting for and on behalf of persons in the area known as the Nyanza Gulf of Lake Victoria within the Republic of Kenya, do present this request for inspection.

1. The communities and individuals we represent are likely to suffer harm as a result of failures or omissions in the design or implementation by the Bank of the water hyacinth management component of the Lake Victoria Environmental Management Project (LVEMP) in Kenya.

Following are the failures or omissions that we believe are the responsibility of the Bank:

- i) No Environmental Impact Assessment (EIA) has been done on the likely impact of the method adopted by the Project for the mechanical removal of the water hyacinth, to wit, the shredding and sinking of the weed to the bottom of the lake.
- ii) The tendering procedure was not sufficiently transparent and serious concerns raised about how the tender was awarded have not been addressed sufficiently or at all.
- iii) Serious concerns raised by the communities around the lake, whose livelihoods depend directly on the lake as well as other informed persons about the likely ecological impact of shredding and sinking the water hyacinth to the bottom of the lake have not been answered sufficiently or at all.
- iv) Little or no regard has been had to the sustainable management of the water hyacinth in using this method of mechanical removal, as it does not involve the local communities in its design or implementation.
- v) The stated participatory approaches and stakeholder involvement in the design and management of the project have been totally ignored as the Project proceeds with this method of removal of the water hyacinth in the face of and without any regard to the concerns and objections of the affected communities.

2. We fear that these failures and omissions shall result in the following damage or harm:

- i) The Nyanza Gulf is home to fresh water fish and the source of water for domestic use for these communities, and these will be endangered by the pollution caused by dumping the weed to the bottom of the lake, thereby putting at risk the livelihoods of the people who depend on the lake. In this connection, it is noteworthy that the lake is already heavily polluted by raw waste discharged into it by neighbouring industries; and further that it is shallower at the Nyanza Gulf than elsewhere.
- ii) In its decomposition, the weed, being an organic material shall make use of oxygen from the lake, thus reducing or depleting the concentration of dissolved oxygen in the water. This will endanger the lives of the species of fish that have little tolerance for reduced oxygen levels. Such fish include the Nileperch, Tilapia and Dagaa, which are major sources of food for local communities, as well as the basis of a major export trade of great importance to the national economy. In this connection, it should be noted that the Tilapia, Dagaa and *haplochromine* species of fish breed and nest largely on the shoreline, which is the area most infested by water hyacinth. Thus, sinking the weed shall seriously impact on the livelihoods of the local communities.
- iii) There is scientific evidence that the water hyacinth is capable of accumulating heavy metals, phenols, and toxic substances. Thus, sinking and eventual degradation of the weed shall result in an abrupt increase of toxic chemicals in the lake, which shall play havoc with the ecosystem.
- iv) The decomposition of the water hyacinth will enhance the eutrophication of the lake at the Nyanza Gulf with serious consequences for the ecosystem, in addition to the increased likelihood of the regeneration of the water hyacinth. Moreover, the likely increase of nitrate levels along the shoreline will in turn increase the likelihood of babies below 5 years of age developing the *Blue Baby Syndrome*.

3. We make this request on behalf of the communities living on the shores of Lake Victoria at the Nyanza Gulf and who depend directly on the lake for their livelihoods, feeding and trading in its fresh water fish species and using its water for domestic purposes. These are communities whose livelihoods and well-being shall be directly affected by the aforementioned impacts.

4. These concerns have been raised with the Bank staff in Nairobi by various people on behalf of these communities, with little or no adequate response. For our part, we wrote a Demand letter to the Project Director of LVEMP on 26th July, 1999 requiring him to address these concerns. We informed him that in the absence of an appropriate response we would file a case in the High Court to obtain an injunction to restrain LVEMP and

Aquarius Systems from shredding and sinking the weed to the bottom of the lake unless these concerns are addressed and the alternative methods for the removal and disposal of the weed are taken into account. We copied the letter to the Bank's Country Director.

We have never received any response from the LVEMP, Aquarius Systems or the Bank. Instead, the Bank on 13th August, 1999 convened a 3 - hour meeting at Nairobi which turned out to be a forum for the Bank, LVEMP and Aquarius Systems to justify their chosen method of removal of the water hyacinth. At the end of the meeting the Bank proposed the formation of a Monitoring Group, without any specification as to who would form or constitute the Monitoring Group nor what its Terms of Reference would be. In the aftermath of the meeting, the LVEMP, Aquarius Systems and the Bank have continued with arrangements to do exactly what the communities are so strenuously opposed to. Clearly therefore, the Bank's response has been inadequate and has not addressed the concerns of the communities.

5. In view of this inadequate response, we are still considering the possibility of filing suit against the Project, the Bank and Aquarius Systems. In the meantime, we are consulting with stakeholders with a view to ensuring that the project is implemented in a manner that does not compromise the sustainable management of this important resource or the livelihoods of these communities.

We believe that the above actions and omissions which are contrary to the Banks policies or procedures have materially and adversely affected the rights and interests of the communities on whose behalf we present this request. We therefore request the Panel to recommend to the Bank's Executive Directors that an investigation be carried out in order to resolve the problem.

We have made this Request for Inspection briefly in accordance with your Operating Procedures. We are however able to provide you with more particulars on request.

Yours Sincerely,

Michael Ochieng Odhiambo
Executive Director

We authorize you to make this Request public.

THE EAST AFRICAN COMMUNITIES ORGANIZATION FOR MANAGEMENT OF LAKE VICTORIA RESOURCES

Kenya Chapter
P.O. Box 68, Homa Bay, Tel: 0385-22029
Telefax: 0385-22160/22055
Email: ecovic-kenya@munglu.africaonline.com

23rd September, 1999

RECONCILE

ATT: Mr. Michael Ochieng Odhiambo

Executive Director
Box 7150
Telephone 254-37-44940
Fax 254-37-212865 NAKAR-KENYA
Email: RECONCILE@netke.com

Dear Sir,

RE: REMOVAL OF WATER HYACINTH AT LAKE VICTORIA

This is to register the dispute between the communities living along Lake Victoria and LVEMP, World Bank and acquarius systems on the intended use of shedding and sinking method of removal of the water hyacinth from Lake Victoria. Members of the communities living along the aforesaid Lake are totally opposed to the suggested method of shedding and sinking and strongly advocates for the weeds to be removed manually.

It is on this note that my organization is being a representative of these communities would wish to show commitment with them by mandating you to take up the matter for their benefit.

Ecovic strongly feels that it should not be left out of the inspection team and I don't mind being listed in the team. Enclosed please find a photocopy of the letter my executive committee had written to the Executive Director OSIENALA affirming the same.

Your quick response towards this effort will be highly appreciated. Please kindly acknowledge receipt.

Your sincerely,

Mary Atieno Amwata
Chairperson Ecovic Kenya Chapter

OSIENALA
(Friends of Lake Victoria)
ENVIRONMENTAL RESTORATION PROGRAMME
P.O.Box 4580, KISUMU, KENYA

September 28, 1999

Executive Director
RECONCILE
Resource Conflict Institute
P O Box 7150
Nakuru, Kenya

Subject: Demand Notice to LVEMP and (World Bank and Aquarius Systems)

OSIENALA (Friends of Lake Victoria), is a community based organization representing interest of over 4 million Lake Victoria riparian communities/stakeholders residing on the Kenya side. OSIENALA was formed with the main objective or restoring Lake Victoria to its former glory. As you are aware we are opposed to the proposed shredding and sinking of water hyacinth in Lake Victoria by LVEMP, the World Bank and the Aquarius systems, and our position on this issue has not changed.

As stakeholder organization, we fully support you for the proposed actions:

- 1) Demand Notice to LVEMP and (World Bank & Aquarius Systems) and
- 2) Request for Inspection with the Inspection Panel with World Bank in Washington, D.C.

This letter, is therefore, to request your organization (RECONCILE) to take up the above actions without delay for the benefit of the communities who live and benefit from the lake.

We also request that the organization may list our name in the Request for Inspection.

Please, act with haste as they (LVEMP *et.al*) are determined to get ahead with the proposed shredding and sinking of the water hyacinth.

Your sincerely,

Kinya Muniyirwa
For Executive Director
OSIENALA (friends of Earth)

OSIENALA
(Friends of Lake Victoria)
ENVIRONMENTAL RESTORATION PROGRAMME
P.O.Box 4580, KISUMU, KENYA

September 7th 1999.

**ENVIRONMENTAL EFFECTS OF SHREDDING AND SINKING OF WATER
HYACINTH IN LAKE VICTORIA:**

OSIENALA, a National NGO based in Kisumu once again wishes to emphasize its stand on the implication of the proposed shredding and sinking of water hyacinth in Lake Victoria. As you may be aware, an American firm, Aquarius Systems, won a tender for the mechanical removal of the hyacinth weed from Lake Victoria. The activity is set to start this week, despite protests from scientists and some local leaders that the contract terms be reviewed to include assurance that the weed will be removed and dumped outside the lake. The proposed shredding and sinking of water hyacinth into the lake will have untold ecological decay and environmental degradation that must not be allowed in any civilised society. The following are some of the possible ultimate effects of such an activity: dissolved oxygen deficiency; eutrophication and toxic chemical threat.

Dissolved Oxygen Deficiency

Being an organic material, the sunk water hyacinth will undergo bacterial decomposition. Since the bacteria involved require oxygen during decomposition, this oxygen must be obtained from water. This will lead to the depletion of dissolved oxygen concentration. Fish species are less tolerant to reduced oxygen level. E.g. Tilapia, Nileperch, Dagaa, *haplochloramine* spp. will therefore decline since they depend on this oxygen. Other species that will manage to survive will have their composition changed as a result of this reduced oxygen level. It should be noted that Tilapia, Dagaa, and *haplochloramine* species have their breeding and nesting grounds in the shoreline. These species are also the main source of food for the local community since Nileperch is mainly for export. Water hyacinth mostly infest the shoreline and therefore sinking the weed will severely affect the most important fish species for the local community, a situation that may worsen the already serious food insecurity in the region, due to the globalization of Lake Victoria Fisheries.

Possible Toxic Chemical Threat:

Available scientific evidence shows that water hyacinth has the capacity to accumulate heavy metals and phenols. The plant can retain within hours for every gram of dry matter the following amount of substances: Cadmium- 0.67mg, Nickel-0.50mg, Lead-0.176mg, Magnesium-0.15mg(McDonald, 1975).

It also accumulates the following toxic substances: Tannin-1% in dry matter and 2% in leaves, Oxalate 0.8%-3.3% in dry matter (Loreo and Bressani, 1982). It is no doubt therefore the sinking and eventual degradation of the hyacinth en-masse will result to an abrupt increase of the toxic chemicals in the aquatic environment, a scenario that can crush the aquatic ecosystem.

Eutrophication

Decomposition of the sunk water hyacinth will increase the nutrient load in the Winam Gulf of Lake Victoria, which is a very rich fish breeding and spawning area. Such an increase will stimulate algal growth. As more and more salts of nitrogen and phosphorous increase, more is taken up by both epiphytic and planktonic algae in the aquatic ecosystem. This will result in an increase in their mean biomass and productivity, but with a decline in diversity of species intolerant to low light, higher dissolved solids or competition. This effect will completely alter the aquatic ecosystem leading to a complete disruption of the otherwise natural life. The consequences of this may be short-term or long-term far-reaching. Due to this kind of magnitude of eutrophication and given the fact that seeds of water hyacinth can survive for several years, it will not be a matter of time for the water hyacinth to rejuvenate even more. Further more, if nitrate levels in the shorelines could increase considerably, then babies below 5 years of age using such water can develop a condition referred to as a Blue Baby Syndrome.

Recent scientific evidence on effects of water hyacinth on physico-chemical characteristics in the lake indicates that standing water hyacinth in the lake adversely alters physico-chemical characteristics of the water, how about if the weed was to be shredded and dumped in to the lake to decay? The following would happen: Hypolimnetic oxygen would be nil, higher amounts of ammonia nitrogen would be released into the water in the ensuing reactions, addition of soluble organic matter to water would increase levels of electrical conductivity, total dissolved solids, calcium hardness, magnesium concentration, phosphate concentration and reduced pH. All these would have untold deleterious effect on the biodiversity in the lake not to mention its effect on the water quality for domestic and livestock purposes.

It is for this reason that OSIENALA wishes to let scientists and environmentalists know that by allowing the planned shredding and sinking of water hyacinth, they are showing total disregard to the ecology and hence the people who depend on this lake for their livelihood. We hope the American Company (Aquarius Systems) knows well the consequences of eutrophication for cases of Lake Moss and Lake Washington which occurred in America not too long ago are still very fresh in our minds. It is also clear that in the United States, Environmental Protection

Agency (EPA) would not allow such an ecologically disastrous activity to be undertaken in their water bodies. We also doubt whether the World Bank and GEF managers would sponsor such an activity “ in their respective countries”. One therefore fails to understand why these well-informed institutions should support this unorthodox activity, in a poor country that will not be able to handle the consequences. Let us not commit a mistake, which the future generation will find hard to forgive.

In conclusion, we would like to make the following recommendations: **First**, we demand that an Environmental Impact Assessment (EIA) for the proposed activity be released to all stakeholders. **Second**, for sometime now, water hyacinth has been subjected to a biological control using weevils and so far a significant degree of success has been achieved. Shredding and sinking the water hyacinth will also destroy the weevils. OSIENALA believes that the biological control though results into the sinking of the weed, is a much slower process that allows a natural re-adjustment of ecological system and is therefore more environmentally friendly. It should be given a chance. Further more this methodology has been successful in other countries such as Sri Lanka, Australia, Namibia, Botswana, New Guinea, so why should we now doubt its success in Lake Victoria. **Third**, water hyacinth is a symptom to the problem of pollution. Pollution control measures should therefore be put in place as a long-term solution. While as a short-term measure economic utilization of water hyacinth should be promoted.

Yours sincerely,

Obiero Ong'ang'a
Executive Director

26th July, 1999

Dr. J. B. Ojiambo
Project Co-ordinator
Lake Victoria Environmental Management Programme
P. O. Box 30126
NAIROBI

Dear Sir,

Removal of Water Hyacinth

We write to you in connection with the planned mechanical removal of the water hyacinth from Lake Victoria, on the Kenyan side. We have read the article by Hon. Peter Anyang Nyong'o (*Sunday Nation, July 25, 1999*) raising concerns about the planned dropping of the weed at the bottom of the lake. We think his concerns are serious, and his arguments sufficiently weighty to warrant serious consideration.

We are a public interest environmental law organisation, and one of our objectives is to use the legal process and the legal system in Kenya to protect the environment and promote the sustainable management of natural resources. It is clear to us that the concerns raised by Hon. Nyong'o touch on the sustainable management of Lake Victoria and its resources; a matter that is central to the survival of the people who depend on the lake and its resources for their livelihoods.

In the premises, we should like to add our voice to that of Hon. Nyong'o and to demand an assurance from the LVEMP and all concerned that the concerns raised shall receive due consideration and alternative methods of disposal of the weed shall be looked into. We are copying this letter to the World Bank's Country Director as well as the Inspection Unit in Washington, and to the concerned ministries of the Kenya government. We request for a copy of the environmental impact assessment report on this project so that we too can verify the process followed in determining the best method for removing and disposing of the weed.

We put you on notice that unless we receive an appropriate response within 10 days hereof that the matters raised herein are being given due consideration, then we shall take legal action to restrain you from your intended course of action. In this connection we hasten to draw your attention to the fact that the Environmental Management and Co-ordination Bill currently before Parliament recognizes the precautionary principle which is defined by section 2 thereof as "the principle that where there are threats of damage to the environment whether serious or

irreversible, lack of scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation".

This is a tacit recognition by the government of a major principle of sustainable development that seeks to ensure that we are better safe than sorry.

Yours faithfully,

Michael Ochieng Odhiambo
Executive Director

The Permanent Secretary
Ministry of Environmental Conservation
P.O. Box 67839
NAIROBI

The Permanent Secretary
Ministry of Natural Resources
P.O. Box 30126
NAIROBI

The Country Director
The World Bank
P.O. Box 30577
NAIROBI

The World Bank Inspection Unit
World Bank Headquarters 1818, H Street NW
Washington DC 20433
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The Provincial Commissioner
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P.O. Box 1814 KISUMU

Hon. Peter Anyang Nyong'o
P.O. Box 57103
NAIROBI

The Executive Director
UNEP
P.O. Box 30552

NAIROBI

The Press NAKURU