Water Hyacinth Information Partnership for Africa and the Middle East

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Abstract

A 'water hyacinth information partnership' is proposed as an information–communication mechanism to facilitate timely decisions in cases of water hyacinth infestations across Africa and the Middle East. The idea arose from a consultation of stakeholders across the region, which was supported by the International Development Research Centre in 1996–1997. The proposal responds to the finding that countries across Africa and the Middle East usually start to control water hyacinth too late, after infestations have reached crises levels, despite the availability of expertise within the region. The partnership is to serve the countries as a decision-support information–communication mechanism, making the region able to detect and respond early and cost-effectively to infestations of water hyacinth in its water bodies. Its mission is to facilitate communication and exchange of information on water hyacinth among affected people, decision-makers, experts and donors, thereby contributing to control of the weed. It will serve its constituency by: facilitating their access to scientific information on water hyacinth, both biophysical and socioeconomic; raising awareness among decision-makers and leaders about the characteristics of the weed and of the implications for infested water bodies and the people who depend on them; helping to identify and mobilise expertise and resources available for the control of water hyacinth within the region and globally; calling early attention to impending water hyacinth infestations in water bodies of the region; and championing early and effective control efforts of the weed. The funding for and specific plans to install the partnership are still under discussion.

THE Water Hyacinth Information Partnership (WHIP) has been conceptualised as an information–communication mechanism to alert communities and especially decision-makers concerned with water bodies of Africa and the Middle East (AME), including Egypt, Lebanon, Syria, Jordan, Palestine and Israel, that are facing impending infestations of water hyacinth. It would also foster and facilitate quick reaction to the threat by providing countries with timely information.

The vision is that of a region that is able to halt, and it is hoped, revert the spread of water hyacinth across its water bodies, and thereby prevent water hyacinth from reaching costly crisis levels in any water body in the region.

WHIP's mission is, through the use of modern and more traditional information–communication technologies, to target and tap key sources of information and expertise on water hyacinth and to mobilise decision-makers and to stimulate efforts to control the weed. In the longer term, the expectation is that WHIP would foster and support the integrated management of water bodies and their basins to diminish soil erosion and other sources of water pollution that favour the growth of aquatic weeds.

WHIP's Origins and Rationale

The idea and concepts of WHIP emerged from a 1996–97 consultation of selected researchers, decision-

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makers, donors and community leaders concerned with water hyacinth across AME. This consultation began in late 1996 with a survey of key informants implemented by a team of 5 expert consultants across 29 countries of the region. These countries included those with the most experience of water hyacinth, such as Benin, Egypt, Kenya, Nigeria, South Africa, Sudan, Tanzania, Uganda and Zimbabwe. The consultation ended with a consultative workshop of water hyacinth experts and stakeholders ('Improving reaction to water hyacinth in affected countries across Africa and the Middle East; consultative workshop on the capability of communities, authorities and organisations to react and handle problems of water hyacinth in the region), held in Nairobi, Kenya, in September 1997 (Navarro and Phiri 2000).

The results of the survey and consultation indicated that water hyacinth was present in all 29 countries surveyed and had reached crisis levels in 21 of them.

Water hyacinth entered AME in the late 1800s in Egypt. Its spread indicates that it also later entered through other countries. The spread of the weed has accelerated and become critical since the 1980s.

Water hyacinth infestations have been worst in the intricately connected water bodies of eastern and southern Africa. The most recent hot spot, in terms of crisis water hyacinth infestation, has been Lake Victoria in East Africa.

The consultation also revealed that mechanical and labour-intensive manual methods of water hyacinth control have been the most commonly used in AME, despite their acknowledged higher costs. Chemical control was used successfully in earlier efforts to control water hyacinth e.g. in Egypt, South Africa and Zimbabwe. More recently, however, different countries have grown wary of chemical control because of concerns for potential environmental damage, and have shifted most of their interest to biological control, e.g. Lake Victoria. Countries such as Egypt have banned the use of chemicals to control water hyacinth.

Finally, the consultation made clear that, whatever type of control was used, organised and effective control of water hyacinth began only after infestations had reached crisis levels in all known cases. This happened even in cases where control has been deemed successful, such as Benin, South Africa, Sudan, Zimbabwe and, most recently, Lake Victoria. The consultation also noted that the region now has sufficient experience and expertise to manage water hyacinth infestations.

Concern about Delayed Reaction to Water Hyacinth Infestations

Delayed reaction to infestations of water hyacinth, given available capabilities in the region, was the main concern expressed by the stakeholders surveyed. Such concern arises because of the speed with which water hyacinth infestations can spread and the negative economic, social and environmental consequences of wide water hyacinth infestations.

The cumulative cost of water hyacinth infestation for countries in AME is estimated to run to billions of dollars. In the recent crisis in Lake Victoria, some estimates indicated that water hyacinth covered at least 40,000 ha at its peak, affecting the livelihoods of many fishing and other riparian communities in Kenya, Tanzania and Uganda. For example, at the end of 1997 media agencies reported a 70% decline in economic activities at the Kenyan port of Kisumu as a result of water hyacinth choking the port and fish-landing grounds. Port Bell in Kampala was also closed for periods as a result of water hyacinth mats. The water hyacinth infestation in Lake Victoria has receded recently, due to the release of two *Neochetina* weevil species.

Stakeholders consulted are aware that a quicker response would help to minimise the social, economic and environmental damage and costs of water hyacinth infestations, and that a longer term strategy is also needed. The longer term effort should foster and support a focus on the integrated management of the basins around affected water bodies to control nutrients polluting the water and stimulating water hyacinth growth. The intention is that WHIP would eventually include such concerns as part of its brief.

Reasons for Delays in Response to Water Hyacinth Infestations

The stakeholders identified institutional/organisational, technical and financial reasons for the delays in the responses to water hyacinth infestations.

Institutional/organisational reasons for delayed response were cited as the most common and widespread. These included lack of focused policies and institutional attention. Few countries have policies such as that in force in South Africa, which identify and treat water hyacinth as a menace requiring public mobilisation to control it. Usually there are too many, weak, uncoordinated and bureaucratic 'water hyacinth units', with no clear mandate or leadership. Certainly,

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there is a lack of early warning and information–communication mechanisms to inform decision-makers and quickly link them to sources of expertise and support when needs arise.

Technical reasons identified for delayed response included a lack of well defined integrated control strategies. Studies of control efforts, even the successful ones, reveal reliance on improvisation, with little analysis and use of existing experience. There is also an absence of information on the spread and economic, social and environmental costs of water hyacinth with which to inform and alert the public, decision-makers and donors.

Generally, however, the experts that were consulted agreed that the region already has enough experience, knowledge and expertise to control any water hyacinth infestation quickly, if these resources were mobilised on time. There is also some experience in the use of water hyacinth but the approaches involved are not yet considered to be good control options.

Financial reasons for delayed response were often cited, but not well defined. Although lack of funds was usually cited as a matter-of-fact constraint, delays have occurred even in cases where funds existed or interested donors have been ready to help. In most cases, there were other major reasons for the delay.

The Proposal

While delays in reaction to infestations with water hyacinth were the main concern, the consultation also identified an absence or tardy flow of existing information relating to water hyacinth among key players as a major contributor to the problem.

In discussions during the survey and the closing consultative workshop, stakeholders identified the development and establishment of an information–communication mechanism to foster and support timely decisions and efforts to control water hyacinth using regional capabilities, as the best immediate option to help improve the existing situation. The improvement of the information–communication flow among water hyacinth stakeholders, with a focus on the decision-makers, was identified as the point of least resistance and best option to start building on regional strengths to solve the 'problem of water hyacinth'.

The initial proposal called for developing the concepts and blueprint for a 'water hyacinth information clearinghouse'. Participants at the Nairobi workshop in 1997 requested the International Development Research Centre (IDRC) to further this proposal in consultation with other donors and partners.

Water Hyacinth Information Partnership

IDRC, through its People Land and Water program, continued consulting with other donors and partners. These consultations indicated that the concept of a clearinghouse was considered too restricted or appeared to focus only on the contributions of scientific experts on water hyacinth. Since the intention was to serve a wider constituency, a more inclusive concept was needed. Thus, the concept of an information partnership and the name of Water Hyacinth Information Partnership (WHIP) were adopted.

Vision and mission

WHIP has been conceptualised and is expected to be structured and installed as a decision–support information–communication mechanism to serve the AME region, with the vision of making the region able to detect and respond rapidly and cost-effectively to infestations of water hyacinth in the region's water bodies. As part of this, WHIP's mission is to facilitate communication and the exchange of information on water hyacinth among affected people, decision-makers, experts and donors, thereby contributing to control of the weed and minimising its effects on the well being and development of affected communities in AME.

Objective functions

As part of its mission, it is expected that WHIP will serve its constituency and especially its main users by:

- facilitating their access to biophysical and socioeconomic information on water hyacinth;
- raising awareness among decision-makers and leaders about the characteristics of the weed and of their implications for infested water bodies and for the people who depend on them;
- helping to identify and mobilise expertise and resources available for the control of water hyacinth within the region, and globally when necessary;
- calling early attention to impending water hyacinth infestations in important water bodies of the region; and
- championing early and effective control efforts of the weed when and where needed.

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Structure and organisation

WHIP will be constituted by the water hyacinth stakeholders—the beneficiary groups, and an information exchange and networking service—a service group and its resources.

Water hyacinth stakeholder groups

These groups will include:

- direct beneficiaries, including leaders, community based organisations, women and other groups in communities affected by water hyacinth;
- decision makers—including policy-makers, public officers, managers, specialised research units and others responsible for monitoring or control of water hyacinth;
- expert individuals and organisations, including documentation centres, expert and research centres in universities and other units; and
- supporters, including donors, NGOs, the private sector, the media, etc.

Information exchange and networking service

An information exchange and networking service (IENS) will include the following personnel and facilities:

- a coordinator—team leader;
- secretarial, documentation and information–communication technical staff support (the service team); and
- housing facilities, equipment and materials, including a computer server and connectivity to the Internet and with stakeholders and partners.

It will deliver its services through two types of activities:

- Core activities – in a permanent alert mode, which will include:
  - updating of data on critical information needed or which can be provided by different stakeholder groups;
  - updating databases on relevant data and available literature titles and their access;
  - an awareness service to key stakeholders and general information to all stakeholders;
  - question-and-answer referral services; and
  - an Internet web site and discussion group facilitation.
- Special activities – in a championing and facilitating mode when needs or opportunities arise:
  - organisation of workshops, seminars and short courses;
  - preparation or special packaging of training materials and tool kits—production of interactive CD ROM, special web sites, etc.;
  - development of specially targeted research and intervention proposals, and contributions to fund –raising; and
  - management and implementation of special studies and projects.

Management

It is expected that the management of WHIP will be in the hands of a steering committee that represents the assembly of stakeholders and is facilitated in its functions by the coordinator of IENS. The coordinator IENS will be in charge of the day-to-day operations and delivery of WHIP plans and services.

The WHIP steering committee will represent the 'assembly' of stakeholders. It will be led by a chairperson and include a technical sub-committee and an executive sub-committee, to facilitate committee functions and support day-to-day operations.

The coordinator–team leader of IENS will have the following functions and responsibilities:

- executive secretary of the WHIP steering committee
- lead the IENS unit and implement the WHIP work program in consultation with stakeholders through the steering committee, including:
  - implementation and administration of the WHIP programs and core activities;
  - preparation of annual work plans and budgets for review and approval by the steering committee;
  - maintain contact with the steering committee during plan implementation through the technical and executive committees;
  - maintain contact with and inform stakeholders on a continuous basis;
  - champion and facilitate special activities, according to plans;
  - facilitate steering committee meetings; and
  - facilitate fund-raising.

Estimated budget and issues to be resolved

As result of the consultations and discussions to date, the suggestion is to obtain support to install and operate the WHIP for an initial period of five years. Given the level of activities and the cost of personnel, equipment and other support anticipated for the initial five years, the estimated budget is US$1.5m.

The following issues remain to resolved :

The host institution. Several institutions have evinced interest in housing WHIP. The initial idea was that IDRC would house WHIP temporarily, allowing

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time for discussions among the different stakeholders to agree on a final location. Later ideas have suggested that the decision about where to house WHIP must be taken immediately. Thus accelerated consultations are required to reach agreement on this.

Water hyacinth only or invasive water weeds in general? A second interest emerging among stakeholders has been to extend the coverage of WHIP to other invasive water weeds. This would seem to be a rational extension of the coverage, but more discussion is needed to make sure that such a move would not obstruct the implementation of WHIP effort. The main questions relate to the implications of this idea on budgetary and organisational matters, and on strategies for fund raising and allocation.

Reference

Navarro, L. and Phiri, G., ed. 2000. Water hyacinth in Africa and the Middle East. A survey of problems and solutions. International Development Research Centre, Ottawa, Canada. 120p. (http://www.idrc.ca/plan)

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