Role of Non-Governmental Organizations in Restoration and Management of Freshwater Ecosystems

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ABSTRACT

Non-governmental Organizations can play a major role in management and restoration of freshwater ecosystems i.e. lakes, reservoirs, rivers, ponds etc. through public participation process. NGOs have a special role in the integration of communities. As independent entities they constitute an important stimulating element towards the public, authenticating the social dialogue and undertaking activities. They are usually experienced in public environmental education, particularly in conducting educational campaigns, organization of education for children and young and public involvement in decision-making processes. The interactions of Non–governmental Organizations with Government Organizations, community and media create awareness on environmental issues. NGOs often include appropriate practitioners who can plan and conduct public dialogue. Their contribution can add a larger dimension to local activities, thereby strengthening the environment protection lobby in the local community. The overall effort leads to creation of awareness among communities for the intended purpose thereby empowering them with knowledge leading to situations, which are desirable and beneficial for the community.

Key words: Lakes, Community, and Non-Governmental Organization

INTRODUCTION

Freshwater ecosystems e.g. lakes, rivers, reservoirs, ponds etc. and their surrounding watersheds are most significant and valuable ecosystems for all living creatures on earth and nature. They support mankind directly or indirectly through aquaculture, recreation, water supply for drinking, agriculture and industry, flood control, ground water recharge there by maintaining the ecological balance. Lakes and ponds are critical “storage tanks” for freshwater. More than 90% of the entire available surface freshwater is contained in lakes and reservoirs.

Due to growth in population, infrastructure development, increasing consumption, unplanned urbanization and lack of knowledge, the freshwater resources are facing tremendous water pollution problems, threatening the biodiversity within the system as well as health and livelihood of people who depend upon them for irrigation, drinking and industrial water.

In our country all the major 14 rivers namely Ganga, Yamuna, Godavari, Gomti, Kosi, Cauvery, Ravi, Sone, Chenab, Jhelum, Narmada, Mahi, Tapti and Krishna and lakes namely Nainital lake, Pushkar lake, Dal lake, Upper lake, Kolleru lake and Rewalsar lake are under heavy pollution stress. Community ponds in rural areas are also vanishing. It is estimated that by 2025 one third of India’s population will be suffering from severe water scarcity.

In such a scenario multi-sectoral approaches i.e. involvement of various Governmental and Non–Governmental organizations e.g. Department of forest, fisheries, agriculture, tourism, research institutions, Pollution Control Boards, administration, Panchayati Raj Institutions, Corporate sector and Non-governmental Organizations/ Community Based Organizations for the management, restoration and conservation of lakes and rivers are urgently needed to ensure that these freshwater ecosystems continue to deliver services for the benefit of the community.

The issue of protection of freshwater resources in rural areas is not getting enough attention. There are many villages and habitations wherein local ponds, talabs, Nadis are sources of drinking water. It is extremely important that these water bodies are properly protected and people draw water from them in such a manner that they are not polluted.

It is often seen in villages that animals are swimming, bathing in these water bodies. The villagers often take water from them with dirty hands, defecate openly in and around the water bodies, discharge domestic waste in to them, thereby polluting the entire ecosystem. The womenfolk often wash clothes near such water bodies and washout is discharged in them. Although the water stored in such structure is rainwater which is of very good quality but due to mishandling and prevailing behavioral practices, these water bodies are decaying. Lately Government of India has introduced three major national programmes in this field. The names
of the programmes are Swajaldhara, Total Sanitation Campaign (TSC), National Rural Drinking Water Quality Monitoring and Surveillance Programme (NRDWQM&SP) which are closely related with protection of fresh water resources in the rural areas directly or indirectly. The detail is as follows:

**Swajaldhara**

This programme is designed to provide potable drinking water to rural areas. The main concept of the programme is community participation, demand responsiveness and emphasis on sustainability of sources and systems through integrated approach e.g. Rain Water Harvesting, Ground Water Recharge through tankas, anicuts etc., restructuring the existing water resources such as temple ponds, community ponds, surface tankas etc.

The programme is based on empowerment of villagers to ensure their full participation in the programme through informed decision making for the choice of the drinking water scheme and its planning, design, implementation, control of finances, management including full ownership of drinking water assets. The community has to share partial capital cost either in cash or kind or both with 100% responsibility of operation and maintenance (O&M) after execution.

**Total Sanitation Programme**

This is a comprehensive programme on sanitation, which covers all the seven components of the sanitation. This programme is also based on community participation and integrated approach among water, sanitation and health with a broader goal to eradicate the practice of open defecation which is the major cause of deterioration of water resources in rural areas and hence spread of diseases. The components covered in this programme are as follows:

**Safe drinking water and hygiene practices**

- Using clean and safe drinking water
- Taking care of cleanliness around the source of drinking water
- Adequate chlorination of water

**Safe disposal of wastewater**

- Laying drains near water sources for disposal of spilled water
- Using the water draining out of kitchen for gardening or in to a soak pit
- Linking the street drain with the main drain and then its treatment

**Safe disposal of human excreta**

- Eradication of open defecation: every house to have toilets
- Adopting low-cost alternatives of toilets
- Making use of single and double pit flush toilets
- Construction of Ventilated Improved Pit (VIP) toilets in dry areas

**Disposal of solid waste**

- Using the garbage bins
- Using the garbage pits for solid waste disposal
- Converting solid waste in manure and vermicompost

**Personal hygiene**

- Washing hands with soap before meal and after defecation
- Washing of hands with soap by parents after washing the feces
- Taking daily bath

**Community and village cleanliness**

- Having a disposal pit in the backyard of the house
- Keeping the area around the water source clean
- Making arrangements for the disposal of water through soak pits and drains
- Keeping the public toilets, roads and drains clean and green

**National Rural Drinking Water Quality Monitoring and Surveillance Programme**

This programme envisages testing of rural drinking water quality with the help of community through the use of user friendly field test kits and to ensure the availability of an adequate quantity of drinking water of acceptable quality on a long-term basis. The programme also includes survey of various kinds of water sources, prevention of pollution of drinking water sources and educating the public in conservation of the quantity and quality of water through awareness campaigns, community participation and health education programmes.

All the three programmes have a very strong component of IEC and capacity building. There is an urgent need to mobilize the community and other stakeholders around these programmes so that protection of fresh water bodies in rural areas can be done. The state has a professional body namely Communication and Capacity Development Unit under the State Water and Sanitation Mission to take care of these requirements.
Communication and Capacity Development Unit - Rajasthan

Communication and Capacity Development Unit has been conceived at Government of India level to support the reform initiatives in the field of water and Sanitation. Communication and Capacity Development Unit-Rajasthan is a part of State Water and Sanitation Mission, Government of Rajasthan. It is supported by Ministry of Rural Development, Government of India and UNICEF, to promote the reform initiatives in water and sanitation sector. Rajasthan CCDU also has seven Regional Support Units at divisional headquarters of the state.

Communication and Capacity Development Unit-Rajasthan is working closely with multiple departments and agencies namely Public Health Engineering Department, Education, Panchayati Raj, Health, District Water and Sanitation Committees, UNICEF and Non – Government Organizations. It is primarily responsible for handling the Information, Education and Communication, Capacity Building and Social Mobilization aspects of above three programmes. The unit works as an interface between Government and non-Government organizations (NGO). The non-government organizations have a very important role in Information, Education and Communication, Capacity Building and Social Mobilization activities.

WHAT IS A NON-GOVERNMENTAL ORGANIZATION?

A Non-governmental Organization is a no profit no loss organization constituted on local, national and international level and is not directly part of the Government. Structure Non-governmental Organization may be a registered society, trust or company funded by community contribution, national and international organizations or Government itself.

WHY NOGs?

The need for the services of non-governmental organization is due to the following reasons:

- The Government Officials are not trained in Information, Education and Communication (IEC), Human Resource Development (HRD) and Social Mobilization (SM) activities. Non-governmental Organizations have trained manpower in the field of Information, Education and Communication, Human Resource Development and Social Mobilization activities who can act as good communicators and motivators.
- Their mobilization, monitoring and supervision is effective and fast.
- They can help in organizing communities to influence Government programmes as they are in greater proximity with target beneficiaries.
- They live and work with people at the grass root level to gain their confidence to identify issues and areas where support is needed.
- They are capable of motivating and bringing attitudinal and behavioral changes to involve people in community projects.
- Non-governmental Organizations have greater flexibility in respect of taking quick decisions in all matters.

ROLE OF NGOs

Non-government Organizations (NGOs) can play a significant role in management, restoration and conservation of freshwater resources through public participation process based on local cultural beliefs, values and practices. They help in bridging the gap between Government and community by capacity building and creating awareness about government policies and benefits. The following activities can be carried out by non-governmental organizations for capacity building, awareness generation and proactive participation of community in management, restoration and conservation of freshwater resources:

Information, Education and Communication

- Under these activities collection, dissemination and analyses of information on water quality, lake fauna and flora and for popularization of importance of lakes, rivers, reservoirs and wetlands, their role in aquatic biodiversity and sustenance of human civilization can be carried out. Formative research should be conducted to identify the barriers to behavioral changes with respect to prevailing practices of using the water bodies leading to their contamination.
- Communication campaigns to be organized keeping in mind the redressal of the identified barriers to behavior changes which are desirable for protecting the water bodies.
- Mass awareness programme through posters, wall paintings, hoardings, pamphlets, electronic and print media, exhibitions, nukkad natak, folk songs, folk dance, film and slide show etc.

Capacity Building

This can be carried out by organizing workshops, seminars, conferences, trainings, field trips and
exposure visits for capacity building of following target audiences or beneficiaries:

- The local populace to be educated about how to use the water bodies without polluting them.
- Capacity building of the local residents in monitoring the water quality of lakes with the help of user-friendly field test kits.
- Industries and inhabitants based in and around the water bodies to be informed for not dumping the domestic or industrial waste into the water bodies and catchment area. The environment around water bodies to be protected by involving community in plantation and micro watershed development.
- Panchayati Raj Institution functionaries to be involved for effective management, restoration and conservation of lakes and ponds and surrounding area.
- Fishermen societies for using proper mesh size net for capturing fisheries to save fish biodiversity for sustainable economic growth.
- Religious leaders to educate and aware public to stop cultural siltation i.e. immersing of idols etc in to the water bodies.
- Tourist agencies, local boatmen for using ecotourism practices for keeping the lakes clean.

Social Mobilization

Social Mobilization activities can be carried out through rallies, formation of teams/groups by

- Village water, sanitation and health committees to be sensitized to keep this issue on their agenda and work incessantly for protection and preservation of ponds and lakes.
- Involving school, college and university students in mass awareness programmes.
- Formation of Eco-clubs or Lake Environment Awareness Centers having information on lake water quality, fauna and flora, indigenous and migratory birds, fishes, macrophytes, plankton and macroinvertebrates etc.
- Involvement of local women self help groups, youth clubs.
- Formation of Bird Protection Committees for creating awareness against illegal bird hunting.

CONCLUSION

The hardware activities alone cannot solve the problem of preservation and protection of lakes. It is high time that community participation should be ensured for this purpose. The community involvement can be ensured only when community is informed about the dangers of deterioration of lakes and its ill effects on them.

Government alone cannot accomplish this task. A multi stakeholder approach will have to be adopted wherein all the affected agencies work together cohesively and collectively to ensure that fresh water bodies are well protected and preserved so that they can support the environmental chain and benefit the society at large.

REFERENCES


