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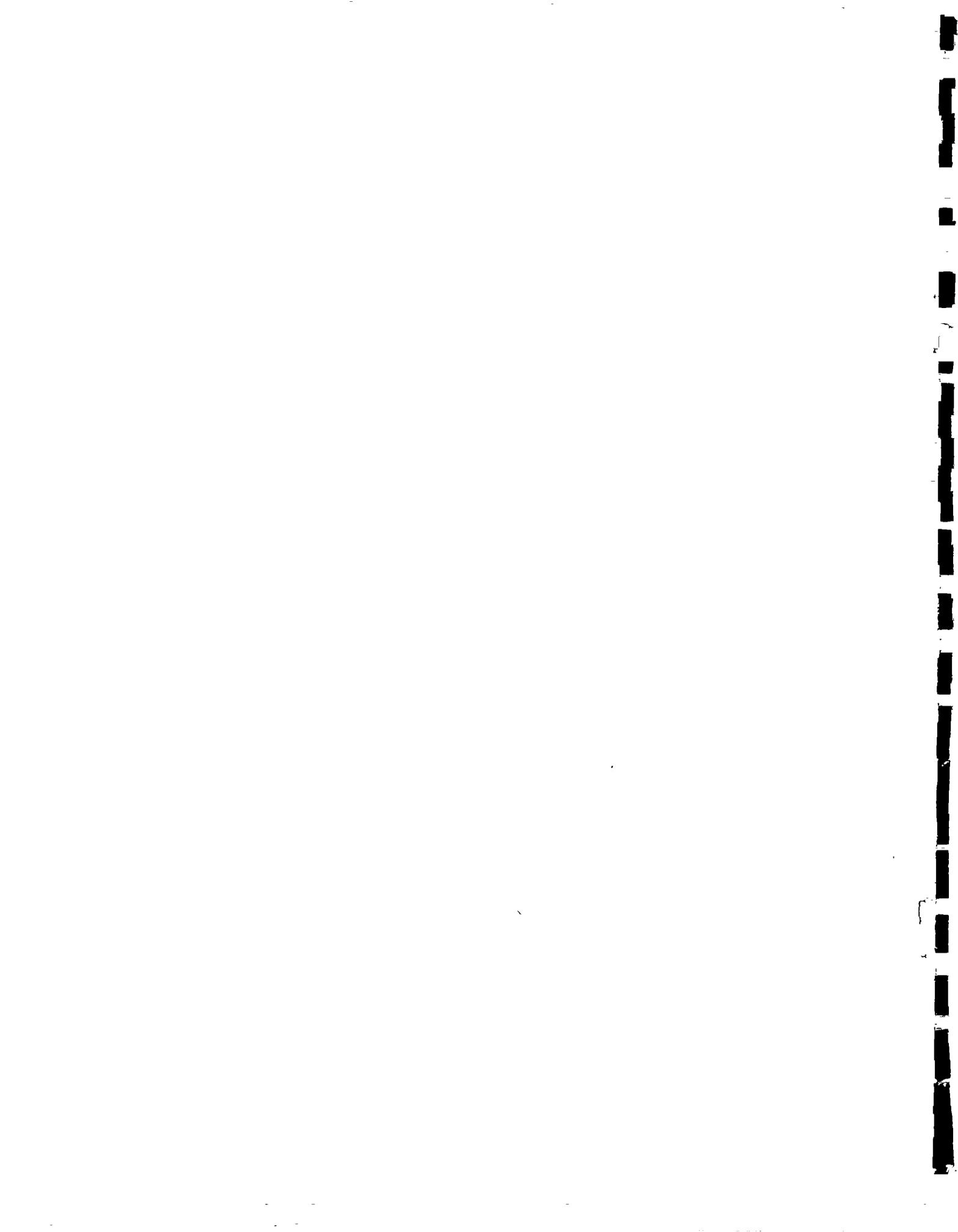
National Colloquium on Role of Women in Water Resource Management



Centre for Women's Development Studies
National Drinking Water Mission, Department of Rural Development

UNICEF

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NATIONAL COLLOQUIUM ON
ROLE OF WOMEN
IN WATER RESOURCE MANAGEMENT

Report

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16-18 August 1990
India International Centre, New Delhi, India



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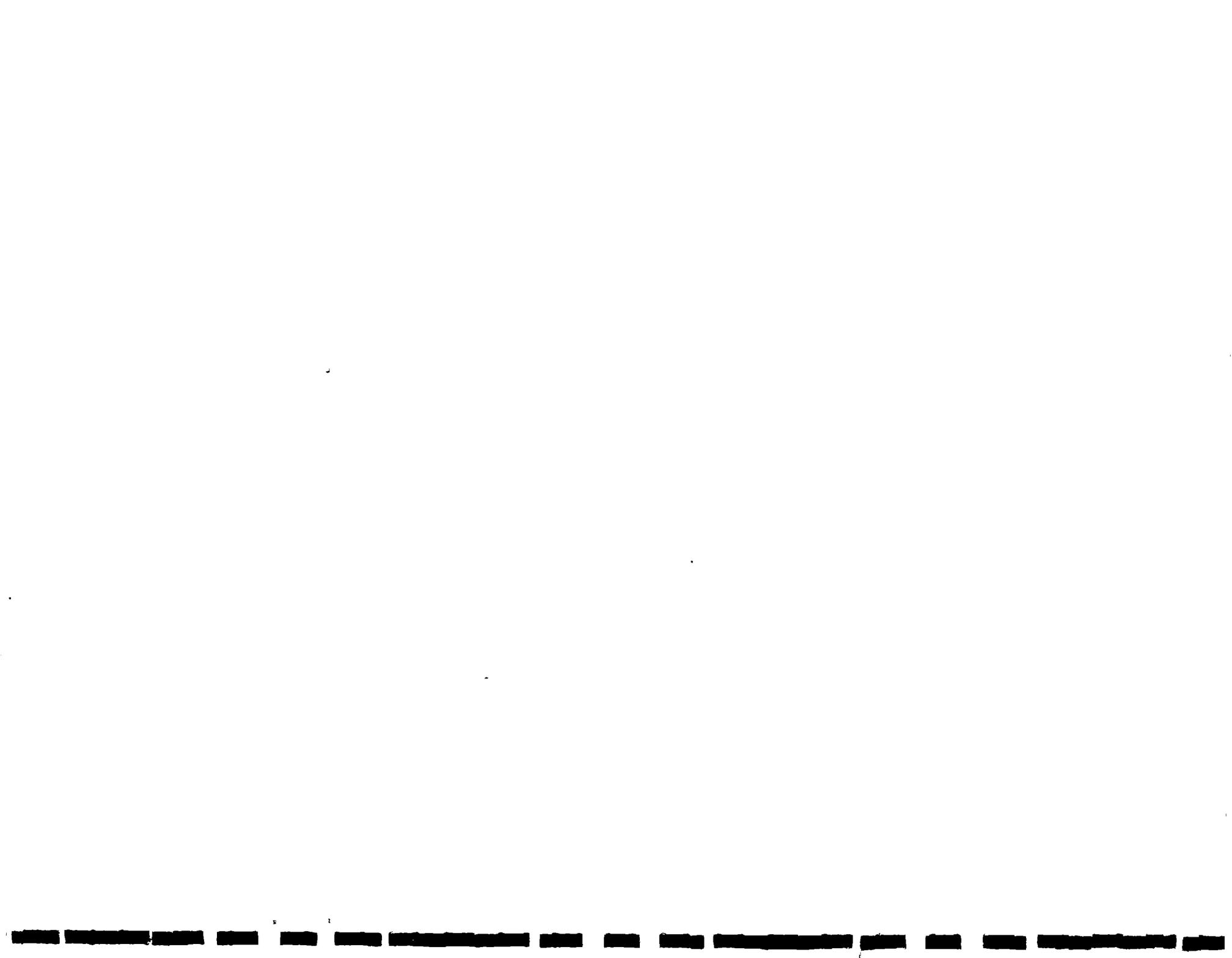
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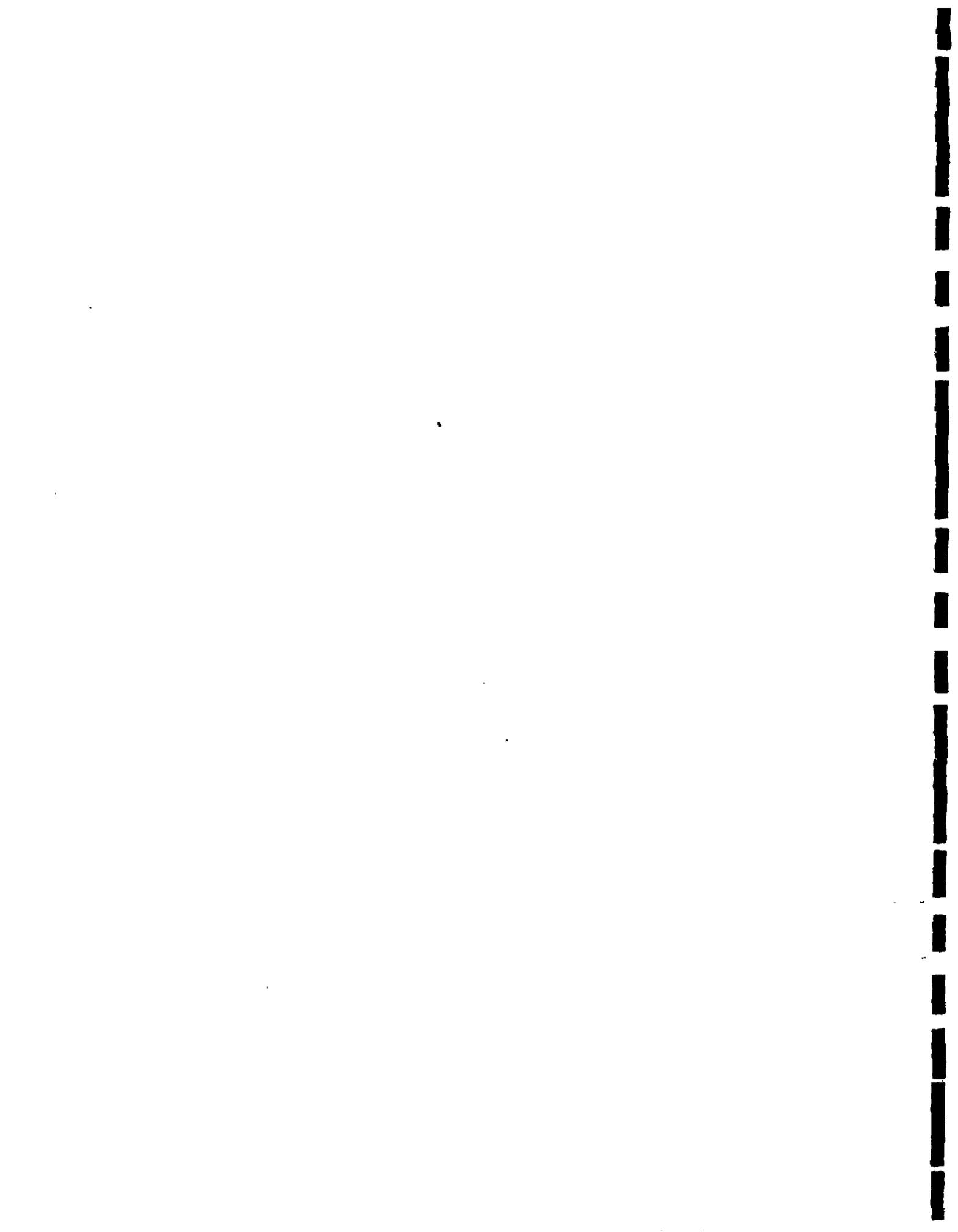
National Drinking Water Mission,
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CONTENTS

INTRODUCTION	5
AIMS AND OBJECTIVES	5
INAUGURAL SESSION	6
PLENARY	10
SUMMARY OF GROUP DISCUSSION	11
RECOMMENDATIONS	17
APPENDICES	
Women and Domestic Water & Sanitation: Issues for the Nineties	29
Women and Water Resources: Challenges and Perceptions	38
Water Resource Management: A Challenge for Development Administration	47
Involvement of Women in Water and Sanitation S.E.U. Experience	56
List of Participants	63
Programme	71





INTRODUCTION

Centre for Women's Development Studies in collaboration with National Drinking Water Mission, Department of Rural Development, and UNICEF, India, organised a National Colloquium on '**Role of Women in Water Resource Management**' from 16th to 18th August 1990. The Colloquium brought together planners, government agencies, donor agencies supporting water supply and sanitation projects, voluntary organisations engaged in research and action at grass roots level and concerned media persons. The group also had the benefit of participation from representatives of PROWESS, World Bank, UNDP, and people's organisations in the Philippines and Bangladesh. The forum provided an intense interaction and exchange of perspectives within which priorities could be identified. It is widely acknowledged that improved supplies of safe drinking water, not only means reduction in time and physical energy spent by women in fetching water, but also in increased health benefits. The debate relating to development, utilisation, and management of water resources has given rise to several intriguing questions relating to quantity, quality and equity. The problems of poverty are indivisible, however, there is an artificial dichotomy between water for productivity and for domestic use. The National Water Policy clearly states that safe drinking water is its first charge. However, irrigation has remained the main user of water. Provision of adequate quantities of safe drinking water to millions of poor rural women and women in urban slums and squatter settlements has remained a distant goal.

AIMS AND OBJECTIVES

The National Colloquium was organised to have a better understanding of the need for effective participation of women in such projects. The Colloquium was organised to arrive at some operational clarity regarding needed policy and programme support for women's involvement in planning, implementation, management, monitoring and evaluation of water supply and sanitation projects. The Colloquium addressed itself to the following issues:

- Examination of government policies and programmes and the social and economic costs of ignoring women's role in water management systems and sanitation programmes;
- Examination of indices used in setting physical targets and in evaluation and monitoring of programme achievements;
- Identification of measures to increase women's participation in management of water resource at the community and other levels;
- Examination of various community-controlled and community-managed models to identify women's vital roles in the use and management of water sources and critical social and behavioural factors which contribute to the success or failure of such programmes.

In addition participants were requested to focus their presentations on issues such as possible modes of participation of local women, changes needed in the present management and delivery systems, ways to ensure accountability of the system to people and role of catalysts at the community level.

INAUGURAL SESSION

The inaugural session was chaired by Shri S.R. Shankaran, Secretary, Department of Rural Development. Dr. Vina Mazumdar, Director, Centre for Women's Development Studies welcomed the participants. In her opening statement she stressed that the basic objective of women's participation in water resource management is the empowerment of women through the management and control of water supply and sanitation systems. She noted water as a source of power and for women to have the power to use and manage these systems, a great deal of political will and a vision for the future is needed. Women's priorities get lost when we talk of 'community participation' or 'people's participation'. We should therefore be clear in our mind as to which women we are talking about who need to be empowered as women in general have acquired the title of weaker section.

Ms. Ela Bhatt, Member, Planning Commission, in her inaugural speech observed that while water as a resource is seg-

mented into sectors and sub-sectors, however, for women, water has multiple uses. She pointed out that the drinking water crises in dry and drought-prone areas, have adversely affected women's economic and personal lives. Carrying water over long distances is not only a drain on women's time and energy but women and girls thus overburdened, can hardly find time for development activities. Studies have also reported substantial reduction in child diseases when the only intervention made was regular cleaning and chlorination of household water.

In the field of rural sanitation the situation is far from satisfactory. It is estimated that only 0.5 per cent of rural population had access to sanitation facilities as on April 1981. Against the target of 152.17 million rural population to be covered by 31st August, 1981, the coverage is estimated to be a meager 3 per cent in the rural areas. In the wake of urbanisation, conditions relating to water supply and sanitation in smaller towns are often worse than in rural areas.

Ms. Bhatt pointed out that despite the special emphasis on providing safe drinking water in rural areas, the success of the programme will depend on utilisation, propagation and maintenance of the installed system. In many areas, she voted that where the handpumps are installed, people prefer to use other sources for various reasons. The handpumps are considered to be Government property and their maintenance is also visualised as the government's responsibility. In piped water supply systems the timings are undependable and unsuitable to the women as they are never consulted while fixing the time schedule. Within the village community, opinions and perceptions of women and men differ. The water supply schemes are not normally designed taking into consideration the needs, habits, culture and ethos of the people particularly women for whom they are meant.

She stressed that the Government Agencies responsible for implementing the programme should act as facilitators and women have to be planners and the doers. The WSS (Water Supply and Sanitation) programmes should pay more attention to the organisational and administrative structures at various levels, not only to provide the services more efficiently and productively but also to transfer a substantial part of the planning and implementation to the elected local bodies both in urban and rural areas. She suggested that to ensure that people,

particularly women, are able to participate in the determination of priorities of the WSS programmes and maintain and manage the basic assets, the completion certificate of the project should be obtained from the village women's committee. She cautioned, however, that we should not fall into a trap of designing models and set schemes for the entire State. It is important that within the overall framework of these projects, local communities, particularly women and their groups, should be given ownership rights and control over these resources as they can manage and preserve them better.

Ms. Bhatt observed that motivation and accountability of the Government delivery systems has been very low as it is not accountable to the people it is meant to serve. Planning and development would become more meaningful to people only if it provides space for local plans and priorities and helps in mobilising local human and material resources. She also stressed the need for a more integrated and holistic approach to the delivery of programmes at the community level and suggested that at the Panchayat level, a Mahila Samiti, elected by the women of the village, could be entrusted with resources and responsibilities to plan and coordinate various services according to their needs. This will help in making the system more accountable and responsible to women's priorities and needs at the local level.

Dr. Eimi Watanabe, Representative, UNICEF, India, in her address stressed that the real challenge for all of us is not merely the establishment of sustainable community water supply and sanitation programmes but those which can enhance women's status and power within their communities. The recognition of women's critical role in planning water and sanitation programmes is now recognised. However, we need to ensure their involvement in the planning and management of development programmes, otherwise water supply systems will be installed in the wrong places their design may not be appropriate; when they break-down, they may remain in a state of disrepair as nobody will take the responsibility for their maintenance. She pointed out that if we accept that women's empowerment is both a means and an end for development then we should take our planning process one step further.

Dr. Watanabe observed that the potential of water supply and sanitation is great, as water is the most vital commodity for human survival and the leverage of being the custodians of this precious commodity can enhance the position of women. She suggested that planning for water supply systems should proceed in a way that the key decisions are made by women in terms of locations, technology, ease of operation and maintenance. It is through the creation and strengthening of women's organisations, through mutual support and solidarity, that women may eventually gain a voice and authority. There are many examples from different parts of the world confirming that the confidence and power which women gain from learning to manage water and sanitation systems spills over to other areas of their lives, such as, fuel, fodder supply, afforestation, income generation, literacy and health services.

No less important is women's need for sanitation services due to a growing population and the disappearance of private open spaces due to reduction in vegetation cover. We should undertake a frank appraisal of the present situation in this area and make specific suggestions regarding policy, legislative, structural and procedural changes needed to deal with the present situation and to respond to women's needs. Extending her full support to the Colloquium initiated by Centre for Women's Development Studies, at the request of the Government of India, she said that it is a recognition of the fact that we all have to share the responsibility of finding most productive ways of collaborating with each other towards reaching our common goal.

Mr. S.R. Shankaran, who chaired the inaugural session, observed that competing claims are made on water resources and drinking water has received a lower priority. There is no clear norm or method of allocating water between different sectors i.e. irrigation, industries and domestic use. He also questioned the basis for fixing the norm for drinking water projects as 40 litres per person per day in rural areas and one handpump for every 250 families within a distance of 1.6 Km. For the VIIIth Five Year Plan the norms are being revised.

Ms. Mrinal Gore, who mobilised thousands of women in Bombay to protest against water scarcity, also addressed the participants.

PLENARY

The discussions in the first day's plenary session covered a wide range of issues both at macro planning and decision-making levels and at the micro level. Three issue papers were presented in the first session (Appendix I, II & III) which raised issues relating to planning and management of water resources, multiplicity of agencies responsible for water resources development and use, competing claims of different sectors and sub-sectors and problem of intersectoral and intra-sectoral coordination, financial allocation to WSS sector and the need for identification of specific mechanisms for empowering women within the community and through the water and sanitation sector. To ensure the realisation goals of quantity, quality and equity will require adequate response from planning and policy makers, delivery systems and local management systems.

Several conceptual and operational issues were raised specifying women's concerns within an overall socio-economic, political and ecological context. The environmental context was viewed to be important at both macro and micro levels as environmental degradation, loss of forest cover, decline in common property resources (grazing, pastures, tanks, ponds etc.) pollution or neglect of traditional water sources, have deprived women of the poorer households of their sustenance and sources of income. Interventions at the micro level will have to take into cognizance the ecological factors affecting sources of water. It has led to increased reliance of women on distant sources of water and energy. Use of contaminated water for drinking, bathing and washing has increased health hazards. It was argued that participation of women in environmental and water resources management needs to be emphasised, for, singling out their role as only domestic water supply users will marginalise them.

Discussions in the plenary session went beyond the issues raised in the theme papers. It highlighted the need for clarity regarding some

key concepts such as empowerment, participation, accountability, appropriate or low cost technology, sustainability and replicability.

The participants identified the following issues for group discussions the following day:

■ *Issues for Group Discussion*

- How to build **accountability in the WSS system for women's empowerment**, particularly for the most affected i.e. the poorer groups.
- **Indicators for monitoring and evaluation** of the quantity and quality of water supply and setting of norms for community involvement.
- **Structural changes needed** in the Government system at different levels and local self-government bodies to ensure women's effective role in planning, implementation, management, distribution, monitoring and evaluation.
- **Process** to be initiated at the community level to involve and empower women—who should initiate it and how (spell out operational strategies).
- **Funding and administrative arrangements and mechanisms** at the community level to ensure resource allocations, making choices from available options, (technological/organisational) cost recovery and operation and maintenance.
- **Communication and training.**
- **Integration** of economic, health, nutrition and educational activities with water management systems at the local level.

SUMMARY OF GROUP DISCUSSIONS

Empowerment of women through development activities and through specific sectors like WSS, was visualised as the major goal at both macro and the local community level. Empowerment was seen as articulation of **women's voice** in the planning, goal-setting and decision-making processes; **access to information, skills and resources**; **control** over assets to generate confidence and pride

among women through management of resources for community's use. In the WSS sector, discussion focussed on the identification of specific mechanisms for empowering women, existing and proposed sector plans, legislation and administrative structures.

Another major concern articulated was the widespread assumption or argument which visualises women merely as beneficiaries or clients rather than managers of WSS projects. Of particular importance was the need to take into cognisance women's traditional knowledge in water management and build on that. An equally strong emphasis was placed on women's access to information on technology, ground and surface water resources, rejuvenation and harnessing of traditional sources of water and linkage between water and health. Information on land, water and environmental issues often do not exist at the community level or is not made available to women. Information on traditional water harvesting practices or water purification practices need to be disseminated not only for communities but also for planners. The emphasis on knowledge and skills available to women, were visualised as a means to make audible women's voices and equity in the delivery of WSS services. The exclusion of poor women can also be remedied through a systematic search of relevance and applicability of their knowledge about water resource management and health care practices.

Discussions also focussed on the issue of replicability of successful and innovative projects. Given the diversity of situations and need to respond to and strengthen local initiatives, it is not replicability but the lessons from building on such experiences which needs to be emphasised. While acknowledging the significant contribution voluntary organisations have made as catalysts in promoting participatory development, it was noted that their number and capacity was not large enough to deal with pressing issues in rural and urban communities.

It was stressed that a community level mechanism will be needed to generate and support voluntary action. However, the questions of who should initiate the process, which women need to participate in such a mechanism with what kind of resources, were equally important. Communities are not homogeneous hence conceptual and practical clarity is needed in specifying women's issues within the socio-economic and political context of the community. The assumption that the prob-

lems of different categories of women are similar, could severely curtail the participation of women from socially and economically disadvantaged sections. Distinction needs to be made not only between rural and urban women but also between different categories of women. It was also stressed that while changes in gender related attitudes, perceptions, prejudices are important, an understanding of the local context is also essential for ensuring women's active involvement.

A strong emphasis was placed on women's access to information and technology. Information on traditional know-how ranging from water harvesting and water purification was necessary not only for communities but also for planners. Communication was viewed as a two-way process of building bridges between macro planning and community levels and between administrators and people. The participants also suggested harnessing the potentials of educational and research institutions. Women need to be viewed not only as clients of communication messages but as partners in the process of learning.

Difficulties in integrating software and hardware components of WSS can be dealt through restructuring of institutions and delivery systems building WID (Women in Development) components at central, state and local levels. No uniform standards can be worked out for achieving this objective. The group cautioned against the dangers of marketing of standardised software technology and packaging of messages through mass media as much as imposing hardware technology on the community. Emphasis on relevance and applicability of women's knowledge was also stressed as a means to increase participation in the delivery systems of WSS services.

Accountability was yet another concept that generated a great deal of discussions. To make the WSS system accountable to users and ensure women's participation, qualitative indicators need to be developed for monitoring the programme at different levels. It was also pointed out that communities were willing to pay for a reliable service and its sustainability was linked with cost recovery and community involvement. Programmes handed out to people without their involvement are difficult to maintain in a sustained manner.

The centrality of water to other aspects of development such as health, education, nutrition, productivity, income generation, creation of

community assets etc. need to be recognised in deciding investment priorities, programme support and community involvement. Release of women's time through water projects need to be monitored to assess whether it leads to their involvement in other activities.

Case studies were presented from India, Bangladesh and Philippines to focus on alternative approaches and methodology for community involvement in water supply and sanitation projects; however the focus was on the Indian situation. The duration of the workshop did not allow extensive discussion particularly on the problems of small and medium terms where the problem was becoming worse with urbanisation, although the need for developing innovative approaches was stressed.

The main projects emerging out of the discussions of two groups are summarised in the recommendations.

The final session of the Colloquium was addressed by:

- Prof. J.D. Sethi, *Member, Planning Commission*
- Ms. Mira Seth, *Secretary, Department of Women and Child Development*
- Mr. S.R. Shankaran, *Secretary, Department of Rural Development*
- Dr. E. Watanabe, *Representative, UNICEF, India*
- Mr. G. Ghosh, *Director, National Drinking Water Mission and Joint Secretary, Department of Rural Development.*

The session was chaired by Dr. Vina Mazumdar, Director, CWDS.

Commenting on the workshop recommendations, Prof. Sethi pointed out that given the complexity of problems and multiplicity of social, economic, political and human concerns that the planners need to take into account, there is a need to prioritise action to deal with most pressing problems. Prioritisation can help in guiding critical resource allocation between different sections. He stressed that decentralisation of power with adequate allocation of financial resources is a must for promoting community participation which is the ultimate objective. Further, we have to be clear in our mind whether community participation is to be initiated by the government or has to be brought

from below. It is important in this context to ensure interaction between the voluntary sector and the local administration.

Prof. Sethi also pointed out that water resources management and drinking water supply cannot be planned on a village to village basis. A cluster approach will need to be adopted and women's participation in water resources management will thus need to be planned accordingly. The problems women confront in villages, small and medium towns and in squatter settlements in metropolitan areas with respect to water and sanitation are getting out of control and can no longer be ignored. The health delivery systems need to be linked with WSS.

Ms. Mira Seth stressed the need for active involvement of NGOs in the management of common property resources. She emphasised that specific schemes should be developed to provide government support to voluntary action in this area. She said that women's role vis-a-vis Panchayats needs to be elaborated. While setting up of the Standing committee of Panchayats for WSS was desirable, it is important to strengthen women's active participation in Panchayats.

Ms. Seth observed that there is a confusion in the interpretation of what is meant by convergence of services—whether it means one-window approach, or availability of services through a set of functionaries and vertical integration of relevant sectoral agencies or coordination of services through non-governmental organisations where the resources of inter-related sectors could be allocated. Until this debate is resolved, several methods of convergence of services could be experimented with. These include concentration of efforts in districts where indicators of women's development i.e. literacy, infant mortality, maternal mortality rate, employment etc. are adverse and promote an integrated approach to women's development in selected districts and states. She said that it was also important to develop a common media policy to avoid contradiction in WID messages, development of a common policy for assisting voluntary action and providing these agencies with an integrated package of support for integrating women's component in WSS activities.

Shri Shankaran observed that common property resources should be managed only by women. It was important to ensure that men also participate in voluntary action at the village level to bring about changes in gender relations and gender responsibilities within the household and responsibilities for community action should not be left to be shouldered by women alone. In the process of decentralisation legal changes need to be brought about to ensure that women not only have 30% seats in Panchayati Raj institutions but 1/3rd of chairpersons of these bodies should also be women. It was important to link WSS with poverty-alleviation and employment generation programmes.

Water is a finite resource and the population pressure on these resources is viewed as critical. It is also necessary that technology development ought to be appropriate and acceptable to users in terms of operation and maintenance by the community and not just maintenance by women. It was pointed out that the identification of areas for future work was needed. These will include a policy and plan reviews as well as development of criteria for the identification of districts where innovative projects can be taken up.

The Colloquium was unanimous in its view that the ultimate priority was to hand over the management of water and common property resources to organised groups of women. The measures recommended by the Colloquium were to be instrumental in the achievement of this goal.

RECOMMENDATIONS

The recommendations which follow reflect the Consensus of the Colloquium that Water Supply and Sanitation (WSS) programmes are an essential instrument for the empowerment of women. The integration of WSS projects with other developmental activities should form a core component of women's development programme (WDP).

For a country like India, a variety of models need to be developed to ensure women's participation. The strategies we recommend, seek to demonstrate the potential of WSS for women's empowerment by expand-

ing the process of participation, awareness building and strengthening women's groups at the grassroots. To achieve these objectives both long-term as well as short-term strategies are essential.

For achieving the long-term goal of empowerment of women, several steps were spelt out i.e. accountability, structural changes at programme and organisational levels, funding, administrative arrangements and introduction of variety of delivery systems that would improve quality of life and participation of women. The achievements of the WSS programme should be measured in terms of an all comprehensive and integrated impact on the community rather than in terms of sectoral, physical and financial targets.

① *Allocation of Funds*

The Colloquium recommends that the programme under the National Drinking Water Mission be strengthened and continued during the VIIIth Five Year Plan period, as the programme could be instrumental in bringing the voice of women into village level planning decisions.

To bring some of the important features of the project in sharp focus specific allocation of funds for important activities need to be made as follows:

<i>Activities</i>	<i>% of Annual Allocation of Funds Recommended</i>
a Investments in innovative and experimental projects which can demonstrate feasibility of variety of models	20%
b. Evaluation and impact studies conducted through independent agencies committed to the goals of women's empowerment	2%
c. Awareness/education for preparing the community through IEC (Information, Education, Communicatiuon) should	

<i>Activities</i>	<i>% of Annual Allocation of Funds Recommended</i>
form an integral component as this will be the foundation for the project.	15%
d. Training and consultancy through scholarship, educational assistance to encourage participation of women professionals, sensitisation of administrators and planners at different levels on WID issues.	2%
e. Policy reviews to bring about administrative and institutional improvements.	1%

② *Participation—Women as Managers and Doers*

The review of the implementation of WSS programmes indicates that it would succeed in achieving its objectives if the user-perspective and user-participation is ensured. A credible service can be built only where the community develops the capacity to maintain the common asset in working order. **The community participation is viewed as formation of a collective voice of women in deciding issues, priorities and concerns.** Since women are more concerned about availability of water for domestic use and sanitation, they should play a prominent role and take initiative collectively in raising the demand for an effective service, resources, installation, facilities to learn skills for operation and maintenance of the system.

Essential Features: Participation of women in decision-making process requires:

- Existence of a village level mechanism/Committee with at least 50% women members, drawn from economically and socially deprived sections;
- An integrated and holistic approach for programmes related to

education, health, sanitation, women's development and employment programmes may be placed under the supervision of this Committee.

- The myth regarding women's technical capabilities needs to be defused and women should be trained as pump mechanics and/or caretakers of the water supply so that they are not dependent for operation and maintenance on outside sources. They should be drawn from the villages and the urban slums. Training them as handpump mechanics should be treated as employment opportunities for village and slum women.
- The selection of technology for handpump and tubewell etc. should be so modified that a group of two or three women can collectively handle its operation and maintenance.

③ *Organisation / Mechanism at Village Level*

Keeping in mind the above indicators of women's participation, presence of a functional mechanism at the community level is essential for the sustainability of the system. Under the Mission programme there is a recommendation to the State Government to set up WSS Coordination Committee at the State, District and Block level. A number of States have responded to this. What is needed, however, is an organisation at the village level responsible for the services under WSS.

The role of local self government institutions including Panchayats in the planning and management of water resources will be crucial to initiate and sustain the long term process for building community managed WSS systems. Necessary devolution of powers and resources to this body will be essential. Recognising the diversity of systems/institutions and local power structures, a mandate to local bodies should be incorporated in their constitution.

The Colloquium, therefore, recommends the following alternative models:

- **Separate Women's Panchayats** to be responsible for all women's development programmes and services at the village level. It should have a two-way relationship with the General Panchayat at the local level. The Women's Panchayats should be constituted with well-defined functions and resources as recommended by the Committee

on the Status of Women in India.

- **A Standing Committee of the Panchayat** which will be responsible for subjects like health, water, sanitation, education, management of common property resources etc. The composition of the Committee will be:
 - A minimum of 50% members should be women drawn from socially and economically backward sections.
 - The Committee should also have representatives drawn from functionaries located in the village i.e. Women and Child Development Programme, school teacher, elected representative of the Panchayat preferably women members. This Committee should enlist functional and technical support of the trained functionaries of WSS.
- In areas where Panchayati Raj system is not fully active/functional, during the interim period a local **women's group/Committee** may be formed with the help of an active voluntary agency in that area and should be recognised by the local Panchayat Samiti or Water Authority in the State. The composition of the Committee should broadly follow the same guidelines as in (b) above.

The model of Socio-economic Unit set up in Kerala (See Appendix IV) may also be examined as an alternative.

④ *Role of the Standing Committee*

The Committee should have both supervisory and executive functions:

- Creating an awareness about linkage between safe water, health and hygiene and demand for long-term interest in sustaining community WSS system.
- Planning with the system vis-a-vis services to be provided in the village in terms of technology, site-selection, use of local resources, cost recovery and human resource development for maintenance and implementation.
- Agreeing about mutual responsibilities for sustaining services and accepting responsibility for after services after they are installed and tested.
- Liaison between agencies implementing WSS projects, health, edu-

cation etc.

- Monitoring and evaluation based on above criteria.

⑤ *Structural Changes*

Government is the primary agency for implementation of water supply and sanitation programme both in rural and urban areas. The drinking water requirement is only 7% of ground water and 10% of the surface water potential. At present the programme is not linked to the programmes of Water Resource Development nor there is a mechanism to control misuse and pollution of this scarce national resource. This has caused delays in the implementation of programmes as per the target set during the Decade and the National Policy goal of providing safe water to all by 1991 has also remained distant. The programme must stress gender specific strategies. Specific support systems in the areas of WSS, waste management and hygiene, need to be clearly established in consultation with women's groups.

- **There is an urgent need for policy review** of water use and management by all agencies dealing with water resource development in the country. Top priority needs to be given to drinking water needs of people as spelt out in National Water Policy.
- There is a need for clearer understanding of the need and modalities for community ownership of water resources—legal and operation. The diversion of such community resources to private and industrial purposes has negative impact on equitable distribution of scarce resource. The present situation may require a detailed review of existing legislation and practices with particular emphasis on their impact on women.
- During the plan allocation works relating to water conservation and water harvesting structures should be given priority and funds made available to maintain these structures. For renovation of traditional sources like tanks, wells and ponds, a separate component with a financial allocation and technical support should be built into programme structures. Traditional sources of water should be rejuvenated as they are cost effective and ensure community participation. At present emphasis of the programme in favour of handpumps and

tubewells has created a bias against maintenance of traditional sources of water in villages.

- **Coverage**—The Mission programme has a specific focus of providing drinking water to problem villages, which have been identified in accordance with criteria given in the Mission Document. As the identification of the problem villages itself is not perfect the need to improve and augment resources for drinking water in other areas also need to be looked into.
- It is recommended that community initiatives should be encouraged for developing experimental, demonstrative and integrated programmes in the areas of WSS at village level. At present there is no mechanism within the Government to respond to proposals from communities for programmes designed by them, and towards which the community is willing to contribute. Provisions should be made in both central as well as state water supply programmes, to respond to such requests and priority should be given to such schemes. Such community-based projects with in-built cost recovery often originate from women's groups and provide sustained services to them. CAPART which is a prime organisation of the Department of Rural Development and provides support to NGOs, should particularly support innovative schemes. Indices for judging such programmes should be on a qualitative and not quantitative basis.
- The presentations of SwACH and UNICEF indicated that India Mark III handpump has been designed so that the maintenance of the handpump can be handled by women. The need is therefore for the government to work out a scheme for replacement of old and malfunctioning Mark II with the involvement of the community, manufacturers and other agencies.

⑥ *Accountability of the Government Programme to the Community*

Water supply is a common asset, to be finally brought in to the service of the community. Accountability is seen as a concurrent process that can ensure that the local community would be involved at different stages of various programmes.

- Formulation of a joint need assessment/situational analysis report

by the Government agency and the community. This should include all aspects of technical feasibility and socio-cultural feasibility as well as KAP data on water use, management and hygiene.

- Decisions relating to project design, the source of water supply, choice of site, use of local resources and technology should be made in consultation with the community. The finalised project proposal should have formal acceptance of the community.
- Collaboration and frequent interaction with the community during construction of the project should be ensured, so that community members are satisfied that the project is being implemented as per the national norms and as agreed with them.
- After construction of the project, a joint inspection by the project authorities, district Panchayats, village Panchayat and the local committee should be mandatory so that the local committee is satisfied about the efficiency of the project before it takes over the asset. The committee would sign an agreement for O&M with the project authority and give a commitment to maintain the asset in working order. Necessary resource allocation and training of the functionary should be ensured by the project authorities.
- The WSS' O&M commitment should be viewed as an opportunity for employment of women in skilled jobs. Women trained as handpump mechanics should be entitled to appropriate remuneration.

⑦ *Training*

The experience of the past decade indicates that there is particular need to strengthen dialogue between planners and the local committees for harnessing institutional and human resources towards the partnership essential for development. It is therefore, necessary to equip the present service delivery system with expertise in social communication within the system at different levels. This capacity for managing communication/social mobilisation will need to be developed within the relevant state and district level infrastructures of the implementing agencies. Training modules for sensitisation of decision makers up to the Panchayat level, technical personnel and other functionaries and workers at the field level, should be developed as part of this programme. For

incorporating women's perspective into various agencies implementing development programmes, the training component needs to be built into various agencies and systems imparting training to development functionaries.

⑧ *Communication*

The Mission has set up a Media Advisory Committee with a view to take up programmes for awareness generation at the community level. Agencies have been involved in creating communication messages through Radio, T.V., folk songs, puppetry etc. These attempts are targeted at bringing about behavioural changes within the community. It has been observed that such strategies to impart indirect messages to people do not necessarily have an area or sector specific impact.

It is recommended that **the communication programme should, therefore, be taken up at several functional levels including the village community, and should be integrated with other programmes like the adult education programme, health, child development etc.** The functionaries of these programmes should extend their support in the awareness generation at inter-personal levels.

Environmental awareness programmes need to be organised through institutions of education, research, scientific laboratories and existing field programmes (ICDS, DWCRA etc.). Awareness building must precede programme planning and implementation.

⑨ *Integration of Ecological, Economic, Health, Nutritional and Educational Aspects with Water Supply*

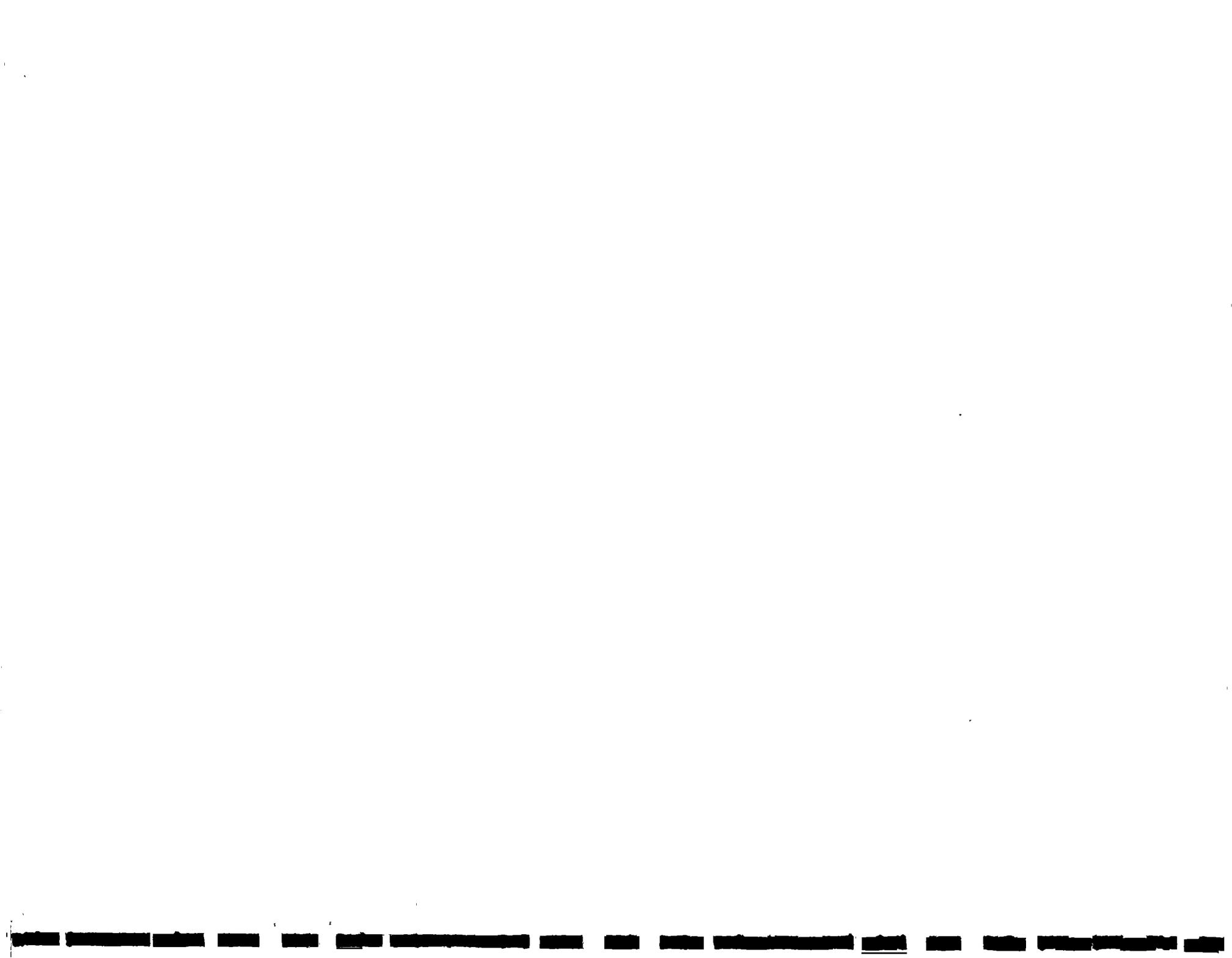
Operational integration of a variety of delivery systems concerned with water supply, sanitation, health, education and anti-poverty programmes is an urgent need. **This integration cannot take place in the field, unless there is a corresponding integration at the Centre and State levels. However, this convergence can start at the village level. Convergence at the State level is crucial for the success of the various programmes.**

Without an environmental and ecological understanding

of water-related issues, the fragmentation which we are seeking to remove will persist, and women will continue to be the victims of policy neglect. The empowerment of women in the planning and management of water supply and water resources should be viewed as a potentially powerful instrument to resolve the environmental and ecological crises that now threaten the country. **Environmental degradation has affected the resource base of poorer households across the country but the major victims are women and children. Incorporating women's perspectives into water resource management could lead to a change in priorities.**

APPENDICES





*Women and Domestic Water & Sanitation:
Issues for the Nineties*

ASHOKE CHATTERJEE*

■ *Aspirations*

The experience of the International Drinking Water Supply and Sanitation Decade (IDWSSD), including its inability to achieve its quantitative targets, has highlighted the societal nature of the Decade's approach and aspirations. Future goals must therefore be reviewed in a social context, within which the role of women is crucial to the achievement of safe water for all by 2000. New programmes with realistic standards of quality and quantity will require new responses which are revolutionary in a basic sense. These responses will need to come from policy makers, delivery systems and above all from user communities. Women as the managers and principal users of domestic water identify WSS as a first priority because it is they who suffer most from the absence of such facilities close to their homes. Women are also the prime movers for water and sanitation awareness. Policies and programmes which continue to neglect their role are doomed: "Women have the ultimate weapon. They determine whether a facility is used or not"¹ No single element in the delivery process is therefore more crucial than the actual participation of women. This awareness was indeed the platform of the IDWSSD. Yet it remains a goal, with women still at the periphery rather than at the centre of programme planning and implementation. The task therefore is to create an enabling environment which can help guarantee that sustainable WSS services are provided to India's rural and urban poor sustainable not by governments alone but by people. Whether we

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succeed will depend primarily on how effectively we are able to apply the lessons of the IDWSSD to the practical purpose of mobilising communities—which means mobilising women towards change.

■ *Lessons*

If the IDWSSD has been unable to meet its physical targets, it has been able to generate a body of experience which is certainly as important as any target coverage. The complexities of reaching the poor, including women, were little understood when the Decade began.

Perhaps the first of its lessons is that while technologies appropriate to the task of safe water are within the reach of our national and regional authorities what must still change are **attitudes, awareness and behaviours**. A remarkable disparity remains in the awareness of what is regarded as safe water by the delivery system on the one hand and users on the other. Closing this gap is the only strategy that can create a level of demand which can energise and transform both the delivery systems and user responses. A shared understanding between planners and people of what constitutes safe water—as a concept as well as a product—is essential. “Safe water alone at the well mouth, tap or pump is neither a guarantee nor an enhancer of life. Water is safe only if safe as it enters the mouth of the user”.¹ This understanding of safety must be sustained through the range of behaviours involved in water collection, storage and consumption. In each of these, women are the catalysts, for these activities are their responsibility.

A recent study initiated by UNICEF to understand the level of knowledge, attitudes and practices (KAP) towards water in eight Indian states clearly demonstrates the need to absorb issues of health and sanitation, without which any technology (including the handpump) is powerless to change the quality of life for those most in need. Although the study reveals high levels of ignorance and misconception among women about many of these issues, it also reveals far higher levels of motivation among them than among other sections of the community towards improvement and adoption of safe practices and even toward sharing the cost of WSS facilities. The KAP study reinforces the fact that rural women, as principal users and beneficiaries, still remain peripheral and somewhat incidental to existing WSS programmes. This is the

Decade's second lesson. **The opinions of women are not considered sufficiently** on the choice of drilling sites. Furthermore, women's opinions are most often conveyed through village functionaries or male members of the household. Direct interaction with women is missing. The study reveals that the principal reason for non-use of the handpump is its inconvenient location for the majority of users, i.e. women. Significantly, the majority of implementers expressed satisfaction with the present system of drilling site selection, a system which replaced apathy with community involvement.

The Decade's third lesson is the demonstrated risk of our **preoccupation with physical and financial targets**, rather than on development strategies which focus on human beings. So long as consumers of safe water remain programme objects rather than programme subjects, apathy and dependence are reinforced. Safe water becomes yet another factor in games of patronage and powerbroking. Small wonder then that dialogue is rare between the system and the communities it is supposed to serve, and dialogue with women rarer still. Another lesson can be learnt from the situation in which **each delivery system** (be it health, sanitation or education) **works in isolation from the other**. Yet the changes we seek in user responses demand an integrated understanding of water, health and the environment.

The experience of the past ten years had also brought home the lesson that **technology to be appropriate demands a high level of community participation and response**. The handpump has succeeded because it is a product and a system that can respond to users' needs, users that are women for whom the handpump is not merely a product but an environment and a social system. The level of handpump technology directly to the level of knowledge and skills available within village communities towards proper maintenance and use. This harmony has been magnificently demonstrated in the response of women to the challenge of becoming handpump *mistris* and caretakers.

Experience in India has made it abundantly clear that **low-cost technology in itself is not enough** and that **community participation**—particularly women's participation—is the only

sustainable and long term solution towards the objective of safe water. The National Drinking Water Mission has been intensely aware of this need. Although its achievements towards community mobilisation are nowhere near the level essential to the task, efforts have been made to strengthen this aspect of national policy. The Mission sometime ago brought together an expert group and enlisted the experience of the UNDP/PROWESS towards current and future strategies. The DWCRA programme was also harnessed, and special efforts were made at better coordination with other authorities concerned with the welfare of women and children. A WSS module has been integrated into *anganwadi* training programmes that are now ongoing, and a current programme seeks to provide each *anganwadi* with a water point and a latrine that can make safe water and sanitation practices a demonstrable part of everyday life. External support agencies have also played a role through catalyst demonstrations such as the SIDA-aided SWACH project and DANIDA's efforts in Orissa. Village and district committees have been encouraged, with women as prime members. Systems of certification by women for handpump setting and maintenance have been attempted. There has been the major breakthrough in enlisting women as handpump *mistris* in several states, an achievement full of promise and potential as well as challenge. Are these women volunteers to be the vanguard of a new environment, or will the handpump become an additional responsibility heaped upon their already overburdened shoulders?

All these developments reflect the dialogue on WSS that has been initiated with NGO's in an attempt to define and facilitate more precisely the role of women in India's safe water efforts. Through this dialogue, **voluntary activity has emerged as a potent force for change.** The experience of NGO-led interaction between policy makers, implementers and local communities has been significant. As a consequence, a greater responsiveness to local needs and aspirations is evident in many of the government agencies concerned with WSS delivery systems. There is a perceptible acceptance today within these agencies that success can no longer be confined to the achievement of time-bound physical targets, but must be evaluated instead in terms of the ability of communities and authorities to work together towards problem-solving. It is recognised that a range of technology options that are user-friendly and user-

manageable must be matched by a range of institutional arrangements which can help create that enabling environment which alone can sustain the services government seeks to provide. This means developing an ability to share, to work together as teams, and for beneficiaries to become and to be accepted as **clients**. It also means that community participation is not enough. What we must work towards is **community management**. The 'how' of all this is the challenge ahead.

■ *Challenges*

Teamwork and participation is thus the basic challenge for the decade of the 90's. Planning efforts have to set **new goals** of social empowerment. The effectiveness of delivery systems will need to be evaluated in terms that go beyond numbers into new benchmarks of community service. This will require **new skills** in programme evaluation, and an ability to assess the empowerment of communities through their ability to act as clients. For this, a more accurate understanding may be essential of the specific WSS **needs of women**, as well of the **channels** through which their energies can be enlisted toward participation and management. A range of **institutional options** must be innovated which can involve women in planning policies and services, maintaining facilities in **education and training** toward health and sanitation, in the development and spread of **new concepts and technologies** (which extend to community sanitation as well as to such needs as rainwater harvesting and revival of traditional water conservation structures), as well as in sharing experiences and **mobilising others**. These institutional arrangements will require new partnerships between governments, the voluntary sector and private initiative. It is the very design of programmes and technologies that will now have to be made "appropriate"—appropriate to women's needs and aspirations. The role of the non-government, voluntary sector in achieving such goals is clearly paramount.

■ *Integration*

The teamwork and participation we are seeking will need to be matched on the ground by a culture of networking within the variety of delivery

systems on which a better quality of life is dependent. Programmes of child education, adult literacy, primary health, agriculture and industry must be linked together far more intelligently if any community is to build and manage its own environment, and make demands upon these systems effectively. Over the past decade, the absence of such integration has proved a major constraint. The NDWM has attempted to address this need through its dialogue and cooperation with ICDS and with other Mission strategies. Yet the lacuna persists as a major hurdle. It puts the burden for integration directly on the field worker, who is expected to have multiple skills to achieve an integration at the grassroots which does not exist anywhere else along the line. NGO's will be particularly familiar with this situation.

Operationalising such integration at the village level is only possible if there is a corresponding integration at the highest levels of decision-making, as well as all the way down the line, so that networks and interconnections are established which can reinforce and encourage the processes of self-help. To achieve this, dialogue between delivery systems and client communities can be greatly facilitated by voluntary organisations that have gained the trust of both.

■ *Productivity as Empowerment*

The authority over their own time which WSS projects offer to women can be a powerful element in the process of empowerment and social equity. Yet there is a need to understand more precisely than we do today the relationships that exist between women's productivity and improved WSS as a means of helping women to pull themselves out of poverty. Investments in WSS need to be taken with a clearer understanding of what costs and benefits really mean. What, for example, are the trade-offs between the costs of services and increases in women's productivity at home, at work and through leisure? What linkages between WSS and other facilities are essential in terms of women's education and employment opportunities, or for the education and health of their children? Have WSS facilities resulted in a more equitable distribution of household responsibilities? How do WSS facilities encourage education and earning opportunities of women between the ages of fifteen and thirty-five who have been identified as the principal collectors of domestic water

through the UNICEF survey? Are there uses of water which have been overlooked in current planning—such as the needs of domestic animals? Since so much of a woman's time is devoted to kitchen chores, what can we learn from recent findings on the attitudes of women to safe water supplies in terms of cooking quality? There are these and many other areas of inadequate understanding in which your experience could be enormously important to the tasks ahead.

■ *Political Implications*

Wherever new pumps, pipelines and latrines benefit the poor, traditional power structures are threatened by change. Those who learn to manage safe water will go on from there to make other demands on the system, to demand management of other aspects of their individual and community lives. People cannot be motivated to participate and manage only up to a given point in a given direction. So, will encounter be the other side of the participation coin? The importance of structures of self-government and participation which extend from communities of the village and the urban poor to the highest levels of national planning will be obvious. We in India have an advantage here, but it is an advantage that cannot be taken for granted in the present climate. The implications of these ingredients cannot be minimised. There is always an enormous reluctance on the part of power structures to sacrifice dependency—building practices which have so far provided political clout and leverage within the system. The key element in all of this will be the effectiveness of institutions that can facilitate decentralisation. These must be capable of encouraging and building the ability of users to plan, operate and maintain their own safe water sources. The alternative is to remain stuck with limited involvement, the absence of a sense of community ownership, inadequate understanding of the value of WSS facilities and therefore a limited desire to use and maintain them. In other words, the alternative is to be stuck with today.

■ *Communication*

The things that must change are basically people—people who are policy makers and people who are users and consumers of water, everyone from

the seniormost planner to the mother and her child. Behaviours must change all along this human chain. And if behaviours must change, then the most critical element in planning for safe water is that of effective communication. This is yet another Himalayan challenge, which can be met only by listening to people and responding to their aspirations. All these years, there has been a massive misunderstanding of communication as products of mass media, rather than as a process of exchange which can alter human behaviour. Perhaps this is why after forty years of investment in Indian information, broadcasting and field publicity, we still required an integrated Mission approach towards persuading the Indian villager to accept basic concepts of safe water and to acquire basic knowledge of how to keep it safe. Within the system, the ability to listen has been ignored. Interpersonal communication skills and participatory techniques have been neglected, and without these a two-way exchange of information and ideas is impossible. The Mission experience does not claim any great magnitude of success, but it does indicate the process that we will have to follow if change is indeed to take place. The immense possibilities of contemporary media are only revealed when mass communication is redefined to respect communities and individuals in their own situations. The recent UNICEF survey provides important guidelines on strategies which can use people's own priorities and felt needs as the starting point for communication. The study highlights the importance of promoting four or five key practices in the handling of drinking water during collection, transportation, storage and use. To cite one example, almost seventy percent of the households surveyed did not use water containers with long handles. In these households, unwashed hands are in constant contact with so-called safe water. And the massive investments in remote sensing, geo-hydrological surveys, drilling, handpump installation and maintenance are completely negated because of the absence of a small, inexpensive vessel with a long handle. If women can be persuaded to adopt safe practices, their families will follow. Yet concepts of what constitutes safe water are not enough. Awareness must extend to what constitutes cleanliness, towards defecation practices and the use of latrines. All these demand a quality of dialogue that can be initiated only by and with those who are experienced in listening and whom communities have come to trust. This is the

partnership on which the hopes and aspirations for the next decade are entirely dependent. It is in pursuit of this partnership that we have come together. The patterns which will emerge from our discussions can help us to work together more effectively, to serve our women clients more efficiently, and to do whatever is possible within our power to make safe water a reality in 2000, and not the distant dream which it has remained for forty-three years since freedom.

■ *Conclusion*

The role of women in assuring safe water practices now requires much sharper definition and more specific support systems than has been achieved in India during IDWSSD. This brief review of the lessons of the past decade and their current implications will, I hope, help in providing a focus for discussion during the brief time we have together. If we have to move from rhetoric to action, we must at the end of these three days have a clear agenda for action. To achieve this, we need to concentrate our thinking on specific needs within domestic water management. The areas in which your advice and participation would be of immediate relevance are these. We need your help to identify, strengthen and innovate institutional structures towards the mobilisation and involvement that is our purpose. We need to work with you in building education and training supports for women in WSS. Your experience can also guide this Mission on specific means by which all delivery systems relevant to the woman and child can be more effectively integrated in the field. Finally, a shared understanding between the system and its clients on what constitutes safe water must be the foundation of WSS efforts. Effective communication is the only means to reach such an understanding. I would draw your attention once again to the recent UNICEF KAP survey. Your participation through the identification of institutions, individuals and teams that can join the Missions's communication tasks can help build this foundation for our shared aspirations and future activities.

*Women and Water Resources:
Challenges and Perceptions*

KUMUD SHARMA*

■ *Water—A Basic Human Need and a National Resource*

The National Water Policy (1987) asserts that planning and development of water resources need to be governed by a national perspective. Water is vital to human survival and yet its availability to millions of people is mediated by several factors. The quantity and quality of water available for human use is linked to the ecosystem, sustainable management of natural resources, and prioritisation of water uses between different sectors and sections of the population. The development process itself has altered resource use and management patterns due to its urban, class and gender bias. Deforestation, soil erosion, pollution and impoundment of water has imposed new forms of deprivations, dislocations and alienation of people from their sustenance base.

Scarcity of water is the direct result of deforestation, disruption of the hydrological cycle, surface run off of water, a declining water table, siltation of river beds etc. Natural resources i.e. land, water and forest are integrally linked, however, we fail to relate changes in land use pattern with water resources. Ecology movements have increasingly focussed on these links and the need to have a holistic and integrated approach. Decline in common property resources affect the poor most as they are dependent on them for their basic needs and livelihood. Women as gatherers are affected by environmental degradation.

Controversies surrounding large dams and river valley projects are too well known to deserve a mention here. Some of the major environmental

* Centre for Women's Development Studies

problems caused by large irrigation projects are—population displacement and social and economic dislocation effects on people, secondary salinisation of productive land and increase in water borne diseases. It is estimated that 70% of India's surface water suffers from different degrees of pollution.

Irrigation is central to agricultural development. Indiscriminate exploitation of ground water in green revolution areas has led to decline of the water table. Prior to the formulation of National Water Policy in 1987, the National Commission on Agriculture (NCA, 1976) stressed the need for comprehensive planning of use of water resources. The Report of the Irrigation Commission (1972) also stressed the need for proper planning of water resources which should be related to a defined area or region. The report said that a river basin plan should present a comprehensive outline of development possibilities of the land and water resources and establish priorities in respect of water use for various purposes.

Estimates of water resources have been made from time to time. The NCA Report says that "irrigation as at present is somewhat extravagant of water". While emphasising the link between water and land resources, it points out that as development takes place in various sectors of the economy there will be a shift in the pattern of land use and more and more area will be brought under cultivation.

The Grow More Food Enquiry Committee (1952) recommended that emphasis should be laid on minor irrigation schemes and repair of existing tanks and wells in different areas. During 1966-69 about 15,7,00 diesel pumpsets were installed and the number of electric pumps doubled to 10,89,000. In the First Five Year Plan expenditure on irrigation was 18.7% as a number of giant irrigation projects were taken up soon after Independence. In subsequent plans the share of irrigation ranged between 9.9 to 11.2 per cent of the total plan expenditure.

The Report of the NAC pointed out that the present ground water development in the country is to a large extent uncontrolled and has resulted in lowering of the ground water table. The Report said that with rising demand for the use of ground water and its increasing exploitation the question of right to it arises.

No other group is more adversely affected by environmental de-

struction, as the poorer households dependent on common property resources for their life support activities. The changes brought about in the livelihood systems of poorer household through state policy interventions relating to use and management of land, water and forest resources, have led to displacement, migration, casualisation of labour and turning skilled artisans into unskilled wage labourers.

■ *Conceptual Ambiguities, Competing Claims and Multiplicity of Agencies*

Earlier, drinking water supply and sanitation were not given adequate priority in the national planning process. There was insufficient appreciation of the magnitude and complexity of the problem and inadequate conceptualisation of water needs and priorities and the need for an integrated approach to manage water resources. Multiplication of authorities dealing with surface and ground water made the task of co-ordination more difficult. By March 1980, about 2 lakh villages in the country with a population of 160 million were without potable water facilities. While the situation in urban areas is better, hundreds of smaller towns, water supply and sanitation arrangements are highly inadequate. Water borne and water related diseases constitute nearly 80% of public health problems.

Until the Third Five Year Plan drinking water supply in the rural areas was a component of the amenities scheme of the Community Development Programme. Local development works programmes were taken up through voluntary labour participation. These efforts were supplemented by the National Water Supply and sanitation Programme of the Ministry of Health. Special investigation divisions were set up in the States to make an assessment of the water supply situation particularly in scarcity hit areas and those endemic with water borne diseases. In the Fifth Plan rural drinking water was included in its Minimum Needs Programme. The drought of 1979-80 accompanied by acute scarcity of drinking water brought in the urgency to search for a solution to the problem.

Considering the magnitude of the problem in a vast country like India there cannot be a uniform mode of water supply nor can we have an expensive water supply service. The wide variety of climatic condi-

tions and different sources of water means adopting a variety of solutions which are economical, effective, in keeping with local needs, implemented speedily and maintained on a sustained basis.

Water as a resource is indivisible. Yet there is an artificial division between water for production and for domestic use and irrigation and water supply schemes have been treated separately. Due to the multi-dimensional character of water use, intersectoral competition (irrigation, industry and commerce), prioritisation of water for different use will determine the quantity and quality of water available to different sectors and how entitlements are going to be worked out. Competing demands also create conflicts particularly when development intervention abbreviates or erodes people's usufruct right. The equity and social justice argument remains a piece of rhetoric as the growth process itself has inevitably led to increasing inequalities in access and use of resources. The National Water Policy admits that there are complex problems of equity and social justice with regard to water distribution. It further adds that water is a scarce and precious national resource to be planned, developed and conserved on an integrated and environmentally sound basis. Though drinking water needs of human beings and animals are given the first priority, irrigation has remained the main user of water. In addition industrialisation and urbanisation has resulted in pollution of water sources from industrial and human waste.

The importance of providing safe drinking water and sanitation as a basic minimum need does not need re-emphasis as without it no improvement in quality of life can take place. After the launching of the National Drinking Water Mission significant progress has been made in the coverage of problem villages; however the problem of sustaining projects at the community levels remains.

■ *Community Participation as an Operative Concept:
Women as Partners in Development*

The IDWSSD brought in greater awareness both nationally and internationally of the importance of involving women in community-based water supply and sanitation systems. Despite the usual argument of women being users, managers of water and hygiene at the domestic level, we have not achieved any substantial increase in women's participation at

the community level. Women are viewed primarily as beneficiaries ignoring the potential women have to change their environment. Their potential can be effectively tapped provided the project informs and involves women right from the planning stage. A review of over 800 field documents compiled in a UNDP study shows that the involvement of women in a skilled and organised way contributes significantly to the efficiency and effectiveness of such projects.

During the last decade and a half, growing emphasis on women and development (WID) issues, recognition of women's contribution in different sectors and the need to involve them in local decision-making processes had several responses i.e. including one or two women in local committees (e.g. forest protection committees, water users committees). This kind of token representations has not helped in strengthening either women's articulation or their effective participation. Many of the traditional social relationships and their gender manifestations get transferred to water use and management also. One cannot ignore the fact the water resource management is also an expression of power.

The village social structure with its class, caste and gender differentiation and unequal access of households to resources including water, creates special disabilities for women. Cultural division of tasks, authority, power and knowledge between men and women makes women more disadvantaged. Women and development literature has focussed on the increasing workload of women particularly in ecologically degraded areas where they spend disproportionate time and energy in collection of fuel, fodder and water. Women's role as collectors and managers of water for domestic purposes and their primary responsibility as health providers and domestic managers is widely acknowledged and does not need re-emphasis. Women decide as to which water sources to use for what purposes. Collection, processing and recycling of waste for fuel and fertiliser is also done by them hence women have a vital stake in planning, maintenance and effective management of water supply and sanitation systems.

Need for community participation is recognised at the policy level but how to translate it into action has not been adequately addressed. Despite our accumulated wisdom through case studies of successful projects of community involvement and management it is still difficult

for government agencies to translate it into practice in a given social context. Most of the government programmes gloss over the processes involved in such projects i.e. finding solutions and mechanisms from participation at the community level. NGOs use the expression 'community participation' or 'people's participation' to indicate wide-ranging ideas and processes which become difficult to accommodate in target-oriented government programmes.

Community participation is much more than merely motivation or token representation of one or two women on all male committees. What is often missed is that a community is not homogeneous but is segmented by class, caste and gender. Failure to make a note of the social dimensions of the development process means that the patterns of water use (segregated wells along caste lines) sometimes get transferred to new resource. If development interventions have to change old systems of community organisation, the project has to move beyond location of a handpump or a sanitation project. Recognising a need is different from spelling out 'how'? 'Community participation' as an 'operative concept' remains imprecise in terms of approaches and methodology. Community participation is both a process and a philosophy. Inadequate analysis of the nature of village communities and its power configurations (caste, class and gender), results in a superficial acceptance of location of a facility or a resource as accessibility and involving the community in the construction of a project (through wage labour or voluntary labour) as community participation.

It is argued that operation of small rural water supply systems can be ensured only with the participation of the village community and institutions. In the major part of the IDWSSD the emphasis was on developing low cost technologies with targets set under Five Year Plans to identify problem villages and at least provide one source of drinking water. The handpumps (its improved versions i.e India Mark II & III) are expected to provide appropriate and maintainable technology at the community level. Technologies trying to reach the services to weaker sections particularly women do need to have an appropriate methodology to give voice to them in local decision-making and participatory structures. Since water use and management practices are part of the social fabric of the community, the technical aspects need to be inte-

grated with social aspects. The main problems which have been identified by several studies in the implementation of water supply and sanitation projects are:

- they are conceived as technical projects;
- there is insufficient emphasis on health and education aspects;
- these suffer from inadequate coordination of WSS projects with other projects such as (DWCRA, TRYSEM, ICDS, School Feeding Programmes etc.);
- there is inadequate coordination with watershed conservation and management, afforestation etc.;
- there is inadequate involvement of women and lack of understanding of the user perspective.

The question we need to answer is who are the women who need to be involved? What are their patterns of work and conditions under which they live and the initiatives they can take? Could we clearly map out areas of collaboration, methodology of participation and mechanisms for facilitating women's participation? Some of the issues we need to discuss are noted below:

- Who are the **women whose participation is essential** in such projects and how it is to be elicited? Women have to be viewed not only as clients of the system but as agents for bringing about changes in areas of health and education;
- Which are the **mechanisms/organisational forms** which need to be evolved to ensure meaningful and effective participation, social sustainability, cost recovery and equitable sharing of benefits?
- What are the **costs and benefits involved in community participation** in project planning and project management?
- What are the **roles and responsibilities of elected bodies vis-a-vis community mechanisms?**
- **Role of government agencies** in sustaining community initiatives and ensuring women's participation. The Government responsibility in such projects cannot be diluted. The idea of community participation does not mean getting things done through voluntary labour but because it is a more effective and efficient way of doing it. Effective local institutions and a good back-up support system of the govern-

ment is a must. The deficiencies in the administration of development projects cannot be compensated by transferring the responsibility to local organisations. There has to be enough flexibility within the broad priorities of development programmes, to be able to make local adjustments.

- **New indices for programme evaluation** such as effective and sustained utilisation of the system, replicability, functional appropriateness of the design, capacity for problem solving and not dependence, control of local operation and maintenance, evaluation and monitoring in terms of these indices rather than physical and financial targets.
- **Integrated approach** to water supply, health and sanitation and inter-sectoral coordination for net gains in reduction of water-borne diseases and consequently in mortality and morbidity.

A study done by SEWA in drought-prone areas of Santalpur and Banaskantha districts in Gujarat, found that women require water for various purposes and have to manage meager supply for cooking, drinking, washing, care of cattle, cleaning and irrigation; yet they are not part of the teams in most of the projects, which decide the site, budget, maintenance of water supply scheme or in formulation of sanitation schemes. Many women wanted to learn skills of water harvesting, bunding, drip irrigation techniques, desalination etc.

It has usually been seen that the integration of software component with hardware though important for the success of such projects are problematic. The concept of integrated development though emphasised in most policy documents runs into difficulties due to lack of a functional mechanism and custodial approach of different departments. While keeping in mind identifiable goals and clear indicators for planning, monitoring and evaluation, one cannot begin with fixed quantitative targets and by passing the processes involved in community managed water and sanitation programmes.

The purpose of the exercise in this workshop should not only be why women's participation but how they can participate and what kind of mechanisms need to be evolved at the community level?

To ensure that such projects take into account the broader framework of health, education and water use, village level mechanisms can take the

shape of a Standing Committee of the Panchayat with a minimum of 50% women's representation. The committee should also include members of the Panchayats, ICDS, MCH and other development functionaries incharge of health, education and water and sanitation projects. This should ensure allocation of resources, discussion-based user choices and accountability of the system. Another issue which needs to be discussed is, can the local community create and sustain such structures without the co-operation of an outside agency? The role and nature of such an agency in helping the people to maintain a system is necessary.

Programme planning and implementation is done at the level of each administrative unit i.e. district, block or village. In the case of water it can be done at the level of watershed so that an integrated approach to land, water and forest can be developed. The matrix of such area planning and the relationship of government to panchayati raj institutions and local women's organisations need to be worked out.

We have several examples of fruitful partnership between community and state efforts. To apply these lessons on a large scale through planning and implementation of WSS projects, one cannot gloss over the processes or working together and finding solutions and the need for reorientation of programmes from physical targets to social empowerment of women, the most powerless group.

*Water Resource Management:
A Challenge for Development Administration*

PRIYA PRAKASH

Water is a prime natural resource, therefore planning and development of water resources should be governed by a national perspective. It has been estimated that the total precipitation in the country is approximately 400 million hectare metres. The surface water availability is about 178 million hectare metres. In addition there is a ground water potential of about 42 million hectare metres. The availability of water is highly uneven in both time and space. There is the rainy season that lasts for three or four months in most parts of the country and the annual rainfall varies between 10cms. in arid zones of Rajasthan to a high of 1000 cms. in states like Meghalaya.

□ 2. Water as a resource is indivisible: rainfall, river waters, surface ponds, lakes, and ground water are all part of one system. Water is also a part of a larger ecological system. The degradation of canal soil and forests cover and neglect of the watershed causes serious water scarcity. The development of agriculture and enhancement of other economic activities inevitably increases the demand for water for other purposes also, such as, domestic, industrial, hydropower, navigation, recreation, etc.

2.1 In the five year plans of India, irrigation and power projects have received top priority. This was done in order to achieve early self sufficiency in food grain production. Multipurpose projects for irrigation, power, flood control etc. also help the process of development, and mitigate the misery of millions of people. The target of foodgrain production to meet the needs of the population projected for 2000 A.D. is

around 240 million tonnes. Therefore irrigation and power would continue to occupy an important place in water resource development in the near future.

■ *National Policy For Water Resource Development*

□ 3. The National Council for Water Resources approved the National Water Policy (1986). The guidelines for planning and development of water resources are briefly as follows:

3.1 The priority in allocation of water is to be decided for different uses in accordance with the sequence given below:

- Drinking water
- Irrigation
- Hydropower
- Navigation
- Industrial and other uses

However these priorities could be modified in an area specific manner, provided there is a close integration of water-use and land-use policies.

3.2 Adequate drinking water facilities should be provided to the entire population by 1991, in urban and rural areas. Irrigation and multipurpose projects should invariably indicate the share of drinking water for the population belonging to project area. Water for domestic use should be the first charge on a project for development of water resources.

3.3 There should be periodic reassessment of ground water potential and regulation of the exploitation of ground water so as not to exceed the recharge potential.

3.4 Integrated and coordinated development of surface and ground water and their conjunctive use.

3.5 Involve farmers in the management of the irrigation system, finalising water rates and distribution of water. etc. Voluntary agencies could be engaged to educate the farmers in efficient water use.

3.6 A master plan for flood control and management of flood prone areas in river basins to be prepared. Watershed management, soil conservation, catchment area treatment, afforestation should be listed alongwith essential flood protection works, to minimise damage to life and property etc.

3.7 Farmers in drought prone areas should be helped to learn rain-fed agricultural technology, soil moisture conservation and water harvesting practices. Pasture development, forestry etc. should be encouraged in arid zones.

3.8 Water is vital for all living beings but an integrated approach to conserve various natural resources, should form part of the integrated area plan for maintaining an ecological balance.

3.9 The success of a water policy therefore depends on developing a national consensus and commitment to its underlying principles and objectives.

■ *Assessment of Water Potential in the Country*

□ 4. The investigations taken up by the Central Water Commission, and feasibility studies prepared so far, indicate that creation of the potential of 113 million hectare metres is possible.

□ 5. Physiographically India can be divided into seven divisions. These are:

- The Northern Mountains
- The Great Plains
- The Peninsular Plateau
- The Central High Lands
- The East Coast Belt
- The West Coast Belt
- The Islands

5.1 The river system of India can be classified into four groups viz.:

- Himalayan Rivers

- Deccan Rivers
- Coastal Rivers
- Rivers of the inland drainage basin

5.2 The Himalayan rivers are formed by melting of snow and glaciers and have a perennial flow of water. During the monsoons due to heavy rainfall in the hills, small rivers swell and cause floods in the Indo-Gangetic-Brahmaputra region. The rivers in the Deccan are rainfed and they fluctuate in volume. Many of these are non-perennial. The streams of the inland drainage basin of Western Rajasthan are few and far between and most of these are of an ephemeral nature.

5.3 Rainfall precipitation is the most important source of replacement of rivers as well as ground water in the country. The rainfall is quite abundant, although it varies in distribution in time and space due to prevailing meteorological conditions and topography of the area. There are also periods when there is drought and flood syndrome occurring simultaneously. Annual rainfall recharges reservoirs, and other natural storages, thus helping irrigation and power generation in the country throughout the year. Total ground water potential developed and spread over in various parts for the country, is estimated to be of the order of 4,22,900 million cubic metres, out of which approximately 1,00,000 mcm., is being exploited at present.

□ 6. The National Water Development Agency of the Central Government is presently investigating the feasibility of utilising excess water by interbasin transfers and by creating reservoir capacity to store flood water. It is estimated, that about 666 thousand million cubic metres of water can be utilised through a number of inter-state schemes. The 222 thousand mcm. could be put to use immediately. Additional benefits for irrigation of 35 million hectares, and 40 million kilowatts of power, facilities for navigation, and mitigation of flood damage are some of the likely benefits. However agreement regarding allocation of water would have to be reached at the political level, within the broad framework of a national policy for development and use of water proposed under the National Perspective Plan.

■ *Impact of Development of Water Resource in Terms of Availability of Drinking Water*

□ 7. The recommendations contained in this National Water Policy need to be examined in depth in terms of allocation of responsibility for implementation and establishing interlinkages with other programmes for impact in terms of satisfactory development of drinking water facilities.

7.1 The National Policy has been formulated by the Ministry of Water Resources in consultation with other ministries and state governments. Drinking water has been assigned a prime position in the schemes for water resources development, but the Irrigation and Power Departments do not undertake the construction of primary sources for drinking water.

□ 8. The Planning Commission treats drinking water, for urban and rural areas, as the responsibility of the urban department. This is an anomaly. An effort was made to make irrigation departments responsible for development of drinking water sources for rural areas however this was not effective.

8.1 The National Mission for Drinking Water is coordinating the drinking water requirements in the rural areas. But due to easy technology tubewell/handpump installation has become the major component. Traditional sources of water in problem villages, as well as other rural areas need to be conserved and rejuvenated. Efforts in this direction should be stepped up and Irrigation Departments and Command Area Developments Authority (CADA) should be fully involved in the programme.

■ *Women as Beneficiaries and Partners in Village Plans*

□ 9. Quantitative norms for assessment of the domestic water requirements have been worked out in the manual for the Urban Development Ministry, Government of India. Accordingly for urban dwellers 140 litres

per person per day and for rural dwellers 40 litres per person per day and 30 litres per domestic animal per day has been accepted as the national norm.

□ 10. The assessment of the water needs of the population are normally made an essential part of each project for Irrigation and multipurpose dams. But unless the irrigation department takes steps to convert this allocation as a component of all irrigation projects these allocations will remain unutilised.

Involvement of women in village plans for water resource development is necessary. This could be achieved by making sure that an equitable share is allocated to women also in the irrigation projects which can be converted by the planners into a proper scheme for drinking water. The Sukhomajhori project in Himachal Pradesh has been developed with full participation of women and landless people are allowed to convert their share of water for rearing of sheep, goats and for other usages.

■ *Public Utilities are Responsibility of Panchayats*

□ 11. The decade for drinking water and sanitation programmes at the village level would be effective if Panchayats are involved with the implementation, operation and management. There should be a committee of Panchayats responsible for land use planning and public utilities services. Initiative should come from the community to create essential public services. Women should constitute at least 50% members of this committee. They should represent different economic sections of the village.

□ 12. The programme approved by the village committee should be implemented by an agency of the Panchayat. Therefore a department should be established by the Panchayat to be responsible for the public utilities system in the village.

12.1 Governments programmes being implemented through government agencies is often delayed in reaching every village for want of resources and machinery. In case the Panchayat decides to establish a

community water supply system for the village, their efforts should be supported under the Mission's programmes. The community should be assisted with both financial and technical aid.

■ *Can Public Utilities Be Established With Self Help?*

□ 13. In order to establish community water supply and an integrated package of public utilities a Panchayat would require the following:

- funds in terms of grant or soft loan facility;
- technical know how and data base to prepare available projects;
- skilled human resources to operate the system.

□ 14. The plan outlay for the programme of drinking water has been allocated under the Ministry of Urban Development and Minimum Needs Programme. The Public Health Department is responsible for implementation. But community contribution for capital investment should be raised by the Panchayat. In case only partial funds are raised, there should be provision to provide supplementary support from the programme of the Mission. People's effort to raise necessary funds for the project may sometimes be difficult due to prevalent chronic rural indebtedness. The All India Survey by the National Committee (1981-1982) on Rural Indebtedness brings out that almost 20% of rural household are found to be indebted the extent of Rs. 3000 per annum on the average. The credit worthiness of a number of financial institutions in the economically backward areas also suffer from similar disabilities. In such cases, provision of soft loans should be made.

□ 15. Credit for minor irrigation schemes is available from financial institutions. NABARD gives support for small and marginal farmers for construction of wells, minor irrigation, purchase of pump sets for tube wells and compensation for failed tubewells. A special scheme has been floated to cover the disability of financial institutions in backward areas. The community through the village Panchayats could take the initiative and utilise funds from financial institutions. This will have to be carefully worked out so that pay back for loans is possible.

□ 16. *Gramsabha*, Panchayats or Rural Development Corporations could play an important role in the development of a water resource. The institutional funds could be useful if these projects are run as viable enterprises so as to cover at least working expenses. For a quick implementation of the Decade Programme it is suggested that the funds for capital works of public utilities should be extended by Government agencies to the Panchayat. Connections of piped water supply for households is the ultimate aim of the drinking water system. The users should be willing to pay for it so that recurring expenses can be generated within the system.

■ *Technical Support and Data Base*

□ 17. TRYSEM and DWCRAs could help design courses to upgrade skills to a requisite standard, to be able to operate and maintain water supply systems with the help of local artisans and skilled craftspersons.

□ 18. The technical departments in the state e.g. Irrigation, CADA could serve the programme and take the responsibility to provide technical support in this regard to village communities. Their proximity and involvement with the hydrological studies and groundwater data would be useful to support local water resource management.

■ *Public Utilities Department for Local Institutions*

□ 19. The main problem in the process of decentralisation of the Decade Programme is lack of a responsible institutional arrangement at the village. The village committee for planning has to be a functional department to take charge of the assets, operation and maintenance of the system with regulatory powers to charge for the services. The department should be responsible for an integrated programme of drinking water, drainage and sanitation, so that systematic village planning can be initiated.

□ 20. To sum up, the following issues are posed for discussion:

- Decentralisation of the programme is necessary for the success of the Decade Programme.
 - The implementation of the programme shows slippages. Therefore to achieve the target within the time schedule more agencies need to be involved. Criteria for selection of other agencies should be their presence in the area and technical capability to handle the programme.
 - Efficient operation of public utilities is essential for a credible programme.
 - The Panchayat should be the focus of village plans. A departmental set-up is recommended for management of the services under the Panchayat.
 - Plan schemes and institutional funds should support all local efforts to improve administration.
 - To be partners in village plans, women need training and orientation.
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*Involvement of Women in
Water and Sanitation S.E.U. Experience*

THRESIAMMA MATHEW*

■ *Introduction*

The proclamation of International Drinking Water Supply and Sanitation Decade (IDWSSD) (1981-1990) emphasised the need for an integrated approach in the planning and implementation of water supply programmes. Many countries, including India, adopted the goals of the International Drinking Water Supply and Sanitation Decade and committed themselves to providing clean water and sanitation to all, by the year 1990. Unfortunately in India we have not reached anywhere, when we really follow the objectives of the decade. The establishment of Socio-economic Units in Kerala is a major step towards implementing the policies and strategies of the Decade.

Socio-economic Units (SEU) in Kerala was conceptually formulated during 1984-85 in order to meet the guidelines under IDWSSD. In 1984 both the Governments of the Netherlands and Denmark launched a joint mission to develop a systematic framework for the implementation of three Socio-Economic units and Co-ordinating Office to work jointly with the Kerala Water Authority (KWA). The three units are located in the North, Central and Southern parts of Kerala State. Each unit covers a project area which consists of 600,000 population. The activities are mainly concentrated in 73 Panchayats, where the 11 bilateral water supply schemes are under implementation. The activities include community education, community mobilization, inter-sectoral and intra-departmental co-ordination and collaboration, human

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resources development and institutional development including appropriate training programmes, establishment of viable and realistic management information systems etc. The major thrust of the programme interventions are on developing micro-level planning and implementation systems and procedures at the ward level. The results of these experiments would be available by the end of 1992.

The principle objective behind the SEUs are to develop and test creative and innovative approaches in the following areas :

- to create the basis for community participation and mobilization in all activities under the SEU umbrella;
- to involve the communities, especially the women, in the site selection of standposts, coverage study of rural water supply schemes, operation and maintenance etc;
- to closely follow the implementation of the schemes with participation of Ward Water Committees and be directly involved in working out detailed designs for providing 90 per cent coverage to the community:
- to introduce meaningful and appropriate hygiene education activities (cost effective) with more focus on traditional and local media;
- to implement cost effective sanitation programmes (household, institutional) latrines in the selected pilot areas;
- to develop a systematic in-built monitoring and evaluation mechanism for periodically assessing the progress, weaknesses, failures, etc. of the schemes;
- to strengthen the capacity of existing government departments and local organizations to plan and implement their activities related to drinking water and sanitation.

In this paper an attempt has been made to review the involvement of women in the activities of SEU.

■ *Women in the Programme*

As stated in the principle objective of this project a central feature is the strengthening of community participation in relation to water, health, and sanitation. Within this, a particular emphasis has been given to women. All through the ages women have been traditional drawers and users of water. Being universal water carriers they spend between one

and four hours a day in water collection and transportation. While women's role in management, decision-making and maintenance work of traditional water supply sources and in sanitation activities is nothing new, the modern water sector hesitates to involve women as active participants in all levels of water supply and sanitation undertakings. Quite often the responsible authorities in the water sector tend to undermine women's ability to carry out responsibilities in water and sanitation projects.

In the SEU programme the major challenge will be to build successful initiatives for forming a more coherent approach to support and empower women.

■ *Ward Water Committees (WWC)*

One of the main avenues for rejuvenating such activity is the Ward Water Committee. Before the establishment of SEU, the procedure for site selection was after the receipt of letter from the Kerala Water Authority, the Panchayat will suggest the location of sites for fixing the public taps. After the SEU formation, the Ward Water Committees have been formed in selected Panchayats. Each Ward Water Committee compose of the selected Panchayat member, 2 women representatives, an active social worker or a teacher, two representatives of youth organizations and a representative of ICDS/Health departments. This committee is involved in the site selection of public taps and low-cost latrines, distance criteria discussion, survey of existing water points, identifying and resolving problems of water, organising and mobilising communities, providing training and information regarding use and maintenance of public taps and latrines and establishing effective links between users and relevant institutions and departments such as Panchayats, Kerala Water Authority, Rural Development, Social Welfare, Health etc.

In some other selected Panchayats attempts are being made to study the effectiveness of committees run only with women members. Even though the concept of the role of women in drinking water is accepted, in practice it was difficult in the beginning of the project. A concrete example of the impact of the presence of women in the committee was seen in a joint meeting of the Kerala Water Authority, Socio-

economic Unit, Panchayat and Ward Water Committees to finalize the location of public standposts in Puthenchira Panchayat under the Mala Rural Water supply scheme. During the discussion some of the men representatives refused to listen to the needs of local women and proposed alternate standposts to their preferences. In the course of action the women members of the WWC, with the help of other women assembled in the meeting came forward very forcefully in the meeting and placed their demand convincingly before Executive Engineer and other colleagues. The men representatives accepted this as a defeat when proved that women can become active participants in deciding the location of standposts.

An Health Education Sub-committee has been formed with the composition of 3 people (two female and one man) from the WWC. This group has been greatly accepted by the local communities, especially in the coastal and backward Panchayats. In the health programme, greater emphasis has been given to the right selection of approaches or combination of approaches, appropriate to sanitation and the ability on the part of the local workers to select and use them effectively. Adequate provision has been made to study and understand how beliefs and attitudes influence behaviour (especially hygienic practices) and thus affect disease transmission. Action-oriented and pragmatic health education programmes with the help of local youths both women and men have been used to promote the health supportive behaviour and production of materials through participatory approaches.

Even though the activities are concentrated in a few selected Panchayats, very practical results are being obtained through the health subcommittees. I am providing below an experience of the Central Region (location Trichur) in connection with the work of the health sub-committee. Women folk in the rural areas of Kerala are more comfortable with open well and pond water than piped water. This is mainly due to their ignorance about the action of chlorine in water (they hate the taste of chlorine in piped water). The health sub-committee of Mala Panchayats was able to persuade the potential beneficiaries of atleast three public standposts to use water from the tap for drinking and household use. They also made sure that all the wells in this ward are chlorinated. They believe that slowly they can bring about change in people's habit.

Similarly the members in the WWC and health sub-committee have been actively involved in every stages of latrine construction. In this endeavour both the men and women are taking responsibilities in the implementation of the latrine programme. Menfolk in one of the pilot project areas (coastal belt) remarked "We are building latrines exclusively for our women".

It is in sanitation that the women representatives of the WWC assume active decision-making roles. In each ward, they take the lead to conduct socio-economic survey, collect health statistics, etc, and participate in the preparation of the final list of beneficiaries for the sanitation units. Since women are mostly concerned about privacy and convenience, these women committee members are most successful in motivating the low income households to make their contribution and own a sanitary latrine. They are also active agents to ensure inter-departmental collaboration. They are now recognised in the community and their suggestions are listened to by the Panchayat, SEU, Kerala Water Authority and other departments. Regular monitoring of the sanitation units is also carried out by this committee, and helps to ensure the adoption of hygienic habits by each house.

Sanitation is not just confined to the construction of sanitation units. It calls for a sanitation package, if we want to reach our objective. The sanitation package includes hygiene education, construction of latrines, soakage pits or drains, use of waste water to kitchen garden and compost pits. The health sub-committee sees that all public wells and standposts have proper drainage and soakage pit. Their enthusiasm is kept up through recognition of their activities in the Panchayat meeting.

The care and cleanliness of each public standpost is the duty of a care taker or standpost attendant. She is a volunteer elected from the users. The health sub-committee is responsible of appointing and training the care taker.

In our approach women are not just the target group, but they are the planners, organisers and implementators.

Women's Clubs: In areas where women's organisations are not existing, SEU is helping to form clubs or Mahila Samajam, besides measures to strengthen and activate existing ones. The intention behind it is to

awaken the women in the project areas. One such club, recently formed, conducted meetings and drew a plan of active involvement in the water and sanitation programme of SEU. Such forums help not only for hygiene education, but provide opportunity for discussing sundry family problems, and health problems relating to women which are of general interest. Women's clubs in 3 Panchayats have embarked on kitchen-garden programme not only as an income-generating activity, but as a solution to profitable use of wastewater. This has helped to divert their time in productive endeavours while at the same time adhering to care programme.

In SEU south, the coastal areas are extremely backward and their hygienic conditions are bad. No formal committee could persuade the women to change their behaviour. Feeling the pulse of these people, the health educator, called upon the women to form "Neighbourhood committees."

■ *Women Masons*

Another innovation of SEU is the organisation and training of women masons in the construction of latrine programmes. For the present training programme, 15 masons have been identified and they are undergoing training for the past three months. In the second phase of the sanitation programme these trained women will be given opportunity for the construction work.

At the inception of the programme, these women were reluctant and hesitant to learn the work. In Kerala, masons are predominantly male members. A great deal of motivation was needed to coax them for the training programme. There were also objections from the male masons. During the process, the public laughed at them and teased them. In the training programme, they were given regular coaching in basic hygiene education for communicating with the household members. The topics are mainly use and maintenance of toilets, hygienic habits, hazards of open air defecation etc. As a way to boost up the morale of the women masons the Women Development Officers, District Welfare Officer and KWA Women Engineers etc visited them and encouraged them for continuing the work. Our long term intention is to develop this

group as a self employed women's Co-operative with funding from elsewhere

■ *Conclusion*

At this stage, I am not in a position to say further on this topic. After a period of two years SEU may be able to offer very valuable contribution on the impact of the involvement of women in the water supply and sanitation programme.

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APPENDIX 5

COLLOQUIUM ON ROLE OF WOMEN IN WATER RESOURCE MANAGEMENT



16-18 August 1990

India International Centre, 55 Max Muller Marg, New Delhi-110 003

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APPENDIX 6

COLLOQUIUM ON ROLE OF WOMEN IN WATER RESOURCE MANAGEMENT



16–18 August 1990

India International Centre, 55 Max Muller Marg, New Delhi-110 003

PROGRAMME

16 August 1990 (Thursday)

9.00–10.45 am: Inaugural Session (IIC Auditorium)

Chairperson	Mr. S.R. Shankaran, <i>Secretary</i> , Department of Rural Development, Government of India
Objectives of the Workshop	Dr. Vina Mazumdar, <i>Director</i> , Centre for Women's Development Studies
Opening Remarks	Dr. Eimi Watanabe, Representative, UNICEF, India
Inaugural Address	Ms. Ela Bhatt, <i>Member</i> , Planning Commission
Remarks from the Chair	

10.45–11.45 am: Coffee Break

*11.15–1.00 pm: Session-I (IIC, New Conference Room)
Issues Before the Colloquium*

Chairperson	Mr. S.R. Shankaran
Presentation of issue papers	1. Mr. Ashoke Chatterji, National Drinking Water Mission. 2. Management of Water Resources: A Challenge for Development Administration—MS. Priya Prakash, CWDS. 3. Women and Water Resources Management: Challenges and Perceptions—Dr. Kumud Sharma, CWDS.
Summing up by the Chair	

1.00–2.00 pm: Lunch

2.00–3.30 pm: Session-II

Chairperson	Mr. G. Ghosh (National Drinking Water Mission.)
Presentations	1. Siri Melchior, PROWESS

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2. Laila A. Banu, Bangladesh
3. Remedios L. Ortaliz, Philippines

Coffee Break

Session-III

Chairperson	Aysa Kudat
4.00-5.30 pm	Discussion on issues continued.
Presentation of case studies	1. SWACH, Udaipur
	2. Binoy Acharya, UNNATI, Ahmedabad
	3. SEWA, Ahmedabad
	4. Socio-Economic Unit, KAP, Kerala
	5. Mr. Joshi, CEE (Centre for Environmenta Education)
Rapporteurs	N.K. Banerjee, Bidyut Mohanty

17 August 1990 (Friday)

9.30-5.30: Working Groups

Working Group B will meet in the new Conference Room.

Moderator	Dr. Kumud Sharma
Rapporteurs	Priya Prakash, Tara Anand, Nilanjana Mukherjee

Working Group A will meet in the Committee Room.

Moderator	Ashok Chatterji
Rapporteurs	Leela Kasturi, Vina Mazumdar, Mala Khullar

18 August 1990 (Saturday)

Session - IV

Chairperson	Dr. Vina Mazumdar.
9.30-11.00 pm	Presentation and adoption of recommendations.

11.30 am: Coffee Break

11.30-1.00 pm: Final Session

Chairperson	Dr. Vina Mazumdar
Responses and comments on workshop recommendations	Mr. J.D. Sethi, Member of Planning Commission. Ms. Meera Seth, Secretary, Department of Women and Child Development, Government of India. Mr. S.R. Shankaran Dr. Eimi Watanabe.
Thanks	Mr. G. Ghosh

1.30 pm: Lunch and Meet the Media—Lodi Hotel.





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