



**Environment**

**Water Community**



**Gender Community**



## **Solution Exchange for the Water Community** **Solution Exchange for Gender Community** **Consolidated Reply**

*Query: Design of Training for Women on Creating Water Networks - Experiences*

**Compiled by Pankaj Kumar S and Bonani Dhar, Resource Persons and Ramya Gopalan and Sarika Dhawan, Research Associates**

**Issue Date: 7 August 2007**

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**From [Ahmed Fahmi](#), UNESCO, New Delhi**

**Posted 29 June 2007**

I work with the Science unit in UNESCO as the programme specialist for Science and Technology for South Asia. We are in the process of conducting a multi-stakeholder conference in Pakistan to get together experts and practitioners on water management and sanitation issues. The participants will consist of representatives from NGOs, associations, teachers, students, and others groups working with rural people. The group will discuss the experiences and results in popularisation of the following issues in different countries over the last few years:

- Safe drinking water sources.
- Arsenic problem and its mitigation
- Sustainable use of ground water
- Water salinity
- Conservation of water
- Safe water during flood, during droughts
- Storage/handling of water
- Purification of water (depending on impurities, with locally available methods)
- Recycling/avoiding wastage
- Mainstreaming gender issues in water

This meeting will provide inputs for a training to be held later at Lahore, Pakistan around 6-9 November 2007 titled *“Training of trainers for women in creating and managing networks on water for poverty alleviation in rural areas.”*

Prior to organizing the meeting, I seek the help of the Solution Exchange Water Community in the following:

- Suggestions from members on the likely course content for a training of trainers for women on creating and managing networks on water for poverty alleviation. Members may elaborate the specific subjects that could be covered from the above-listed broad areas.
- Training methodology that should be used to conduct the above training of trainers.

Your contributions will be provided to the participants in preparation for the conference. We are also looking for participants from India with an expertise in designing such training programmes, and members may want to mention this in their responses

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### Responses were received, with thanks, from

1. [Chanda Gurung Goodrich](#), Eastern Himalayan Indigenous Women, Kalimpong, West Bengal
2. [Ramesha C Gowda](#), Karnataka State Pollution Control Board, Bangalore
3. [Jyotsna Bapat](#), Independent Consultant, New Delhi
4. [Hiren Patel](#), CHETNA, Ahmedabad
5. [Y. Narasimhaiah](#), Training and Development Centre, Hyderabad
6. M Jahangir, Drinking Water-Pakistan- Google Groups, Islamabad, Pakistan ([Response 1](#); [Response 2](#))
7. [Pradeep Kumar Ghosal](#), Women Development Corporation, Bihar
8. [Jyothika Banerji](#), Ministry of Panchayati Raj (MoPR), GoI, New Delhi
9. [Bonani Dhar](#), UNIFEM, New Delhi
10. [Latha Bhaskar](#), Consultant (Social Development Sector), Kerala
11. [Subba Rao](#), Center for Resource Education, Secunderabad
12. [Vinod Kumar P](#), Maithri, Palakkad, Kerala
13. [C. Udayashankar](#), Center for World Solidarity, Secunderabad
14. [Rupesh Kumar Sah](#), Environment and Public Health Organization (ENPHO), Siraha, Nepal
15. [M. S. Gupta](#), Sarvangeen Vikas Samiti, Gorakhpur
16. [Hitesh Chakravorty](#), District Elementary Education Office (DEEO), Hailakandi, Assam
17. [Alka Rawal](#), Aga Khan Rural Support Programme India (AKRSPI) Ahmedabad
18. [P.S. Rao](#), FAO India, New Delhi
19. [Harinesh](#), Janpath, Ahmedabad
20. [Annie George](#), NGO Coordination and Resource Centre Nagapattinam, Tamil Nadu
21. [Sara Ahmed](#), GWA Steering Committee Member, Ahmedabad
22. [Ashok Kumar Paikaray](#), Mahavir Yubak Sangh, Orissa
23. [Rachna Sarkar](#), UP Water Sector Restructuring Project, Lucknow
24. K. Mahesh Kumar, Consultant, Bhopal ([Response 1](#); [Response 2](#))
25. [Mamta Chauhan](#), Institute of Entrepreneurship Development, Lucknow
26. [Rahul Roy](#), Boruka Public Welfare Trust, Kolkata
27. [Maneel Grover](#), SDSG Foundation, Punjab
28. [Smita Premchander](#), Sampark, Bangalore
29. [Arunabha Majumder](#), All India Institute of Hygiene and Public Health (AIHH&PH), Kolkata
30. [Deepa Prabhu](#), ICICI Bank, Mumbai

31. [Xavier Raj](#), Social and Environmental Research Centre (SERC), Synovate Ltd., Chennai
32. [Raj Ganguly](#), ACDI VOCA, Jaipur
33. [Maria Fernandes](#), WaterAid India, Bhopal
34. [Ranjan Das](#), Department of Community Medicine, Lady Hardinge Medical College and Kalawati Saran Children Hospital MOHFW, GoI, New Delhi
35. [Anasua Gangopadhyay](#), Meinhardt Singapore Pvt Ltd, India Branch, Ghaziabad
36. [S. Kishore](#), Consultant, Ahmedabad
37. [Preeti Saxena](#), Centre for Environment Education, Lucknow
38. [Johnson Rhenius Jeayseelan](#), WaterAid India, Bhopal
39. [Surendra Kumar Yadav](#), National Institute of Health & Family Welfare, New Delhi
40. [Bhawna Vajpai](#), Spatial Decisions, New Delhi
41. [N. Lakshmi Narayana](#), Dakshinya Institutes, Guntur, Andhra Pradesh

*Further contributions are welcome!*

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## Summary of Responses

The query on designing a training of trainers (TOT) for women on creating and managing water networks drew overwhelming and enriching responses, with focused suggestions on the approach for designing the course content and methodology of training. Emphasizing the importance of the TOT for women, members highlighted participatory and experiential learning methodologies to enhance women's capacities in efficient water management practices.

Members recognized the **urgent need** for the proposed training of trainers (TOT) for women, as women are major users and managers of water and suggested that the training focus on two major themes – water resource management (given the rapid decline of water resources and ecosystems) and drinking water, sanitation and hygiene - since a majority of diseases originate from poor water quality. However, they cautioned that water quality and quantity is the joint responsibility of both men and women. Involving men along with women is also critical because men control public/ administrative spaces more than women.

The group discussed the **approach** to be followed, suggesting that more than content, the TOT needs to focus on the women and men to be trained. The primary outcome of the training would be developing cadres to spread vital messages in gendered water networking. Trainees need to be equipped to facilitate women and men in villages to comprehend and improve their multidimensional and gender differentiated relationship with water, within existing socio-economic and hydrological contexts in Pakistan, felt respondents. Therefore, tools related to mobilization and raising awareness of communities, especially women and children, need to be the thrust of the training, in addition to topics on water. The training itself, respondents suggested, could be guided by basic principles of Adult Learning and Behaviour Change Communication. For this, they enumerated various participatory, "hands-on" learning approaches, to ensure that the trainees' attention was arrested through interesting presentations and session design.

As part of **preparations**, participants advised that an intensive community needs assessment exercise precede the design of the training. This would also imply identifying specific issues that the women's water networks would address in different locations, and enable customization of trainings. Discussants proposed that training modules build on previous work on empowerment of women in water sector, which could be compiled through case studies from resource agencies.

The group listed the following specific topics for the **course content** of the TOT:

- **Gender** analysis to understand current relationships between women, men and water governance; strategies to enhance women's role in water management; consequences of decreased water quantity and quality on women's health and time; drudgery reduction and using spare time released for economic growth, (e.g. [Morocco](#)), etc.
- **Facilitation skills** – managing and encouraging communities, team building, curricula development based on local conditions, participatory monitoring and evaluation; case studies and experiences on building water networks, etc.
- **Institution building** – forming and supporting multi-stakeholder institutions; respective roles of and linkages between communities, Panchayats, line departments, civil society, Self Help groups, Water User Associations, etc.; political economy of water, etc.
- **Water Resource Management** - Holistic water budgeting and audit to help communities plan and judiciously manage demand and supply of water for all uses, including ecosystem functions; rain water harvesting at homes and fields (e.g. [Rajasthan](#)); efficient water storage, use and recycling methods (e.g. cluster storage, participatory irrigation, water management by SHGs) , etc.
- **Drinking water, sanitation, hygiene** - simple technologies and hygiene practices on storage, handling and filtration of drinking water (e.g. hand-washing, ladles, copper utensils, etc.); menstrual hygiene; linkages between open defecation, pathogens and human health; cure and care in diarrhoea; hands-on disinfection training (e.g. chlorination); waste management, etc.
- **Water quality** - Origins of surface and groundwater contamination; use of water testing kits and remediation of poor water quality (e.g. Kanchan Arsenic filter); location and linking with government laboratories for the same; water quality standards, data collection and analysis, etc.
- **Service provision** - Hands-on training to women on masonry, operation and maintenance of water devices like hand pumps, diesel pumps; (e.g. Training and Development Centre); practical tips to source technologies and arrange support facilities for women's groups to play combined role of entrepreneurs and service providers, etc.
- **Water and poverty linkages** - creating and managing water networks for poverty alleviation ([Andhra Pradesh](#)); economic impacts of water quality related diseases through wage loss, medical expenses, etc. ([Orissa](#))

Members also discussed the **training design** at length, and suggested that it be a mix of participatory learning methods, field work and theory. Visits to the field and laboratories, practical training on using testing kits and water disinfection, conducting sanitary surveys, coupled with classroom sessions could be undertaken. Group work, illustrative case studies (especially on how behaviour change could be induced) and sharing of real-life experiences by practitioners and trainees would further make the training interesting and retention easy, they felt. Some sessions could be common for both men and women, while some separate sessions for women could help them discuss their specific problems. An action plan and selection of a follow-up committee at the end of the training could ensure that actions are taken forward.

Additionally, discussants shared the following **participatory training methodologies**:

- **Appreciative Inquiry** – This encourages community to build a development vision in the context of which project interventions are placed, thereby ensuring greater ownership and credibility with the community.

- **Visualization in Participatory Programmes** – to transfer knowledge, skills, raise motivation levels and adapt solutions to local conditions and resources.
- **Combination of Non-Formal Education and Experiential Learning** Cycle to shift from classroom teaching to on field experimentation. ([APFAMGS](#))
- **SARAR** - a participatory approach to training to build up knowledge base and draw on collective strength of community

Among **training tools**, respondents listed the following:

- Group work- e.g. participatory methods for auditing women's and children's time to find out how much time women can spare for proposed programme.
- Problem Tree analysis to elucidate experience and knowledge of community ([Kerala](#))
- Short-listing and presenting success stories using audio visual aids like posters, puppetry, games, theatre, etc. preferably by actual practitioners (Ref: Catskills)
- Field trips coupled with videotaping the work of participants in the field for subsequent review and learning
- Documentaries, video clips, multi-media case studies on best practices and models

Discussants also underscored the need to set up a system of **training follow up** and suggested:

- Setting up communication systems with trainees for effective follow-up
- Designing IEC strategy using local tools - folk songs, puppet shows, magic shows, street plays, etc., targeted at women and children
- Refresher trainings
- Seed funding to assist trainees to carry forward community plans facilitated by them

Members opined that training is just the beginning of the process of development and requires meticulous planning and delivery of training methods in the TOT to make it interesting, informative and to yield long-term results. The ultimate test of the efficacy of the TOT would be when trainees apply the new knowledge in creating effective and gender sensitive women's networks.

## Comparative Experiences

### Andhra Pradesh

**Network of Women Members Engaging in Training Activities** (from [Y. Narasimhaiah](#), *Training and Development Centre, Hyderabad, Andhra Pradesh*)

Women headed NGOs, Mahila Mandals and MACTs are members of WOMENNET supported by WaterAid India wherein they are trained as handpump mechanics/masons apart from being messengers and awareness creators. As a result of establishing ownership, handpumps are regularly maintained, cleanliness of surrounding environment is ensured and whole families are increasingly using toilets. Women earn an income from this, thus not considering it a burden.

**Use of Farmer Water School in APFAMGS Field Program** (from [P.S. Rao](#), *FAO India, New Delhi*)

Conducted in 7 Districts, training moved from class room teaching/lecturing on topics to on-field experimentation and expert facilitation to enable participants to discuss and develop curricula based on local problems/priorities. This combination of Non-Formal Education techniques and Experiential Learning Cycle was successful with visible impact on ground, enhancing participation of 11000 farming communities, 2000 now becoming trainers themselves. Read [more](#).

### Kerala

**Problem Tree Tool to Ensure Women's Participation** (from [Vinod Kumar P.](#), Maithri, Palakkad, Kerala)

While developing community owned and operated NRM projects- rural water supply, participatory irrigation, community micro hydro, watershed management etc.; Maithri used this tool to ensure real participation. Although it sometimes took longer time to complete the exercise, it enabled a relaxed person-to-person interaction in familiar surroundings to clarify doubts, worries, etc. The tool thus brought out the experience/knowledge/solutions of the participating community.

**Orissa**

**Ownership at Community Level Preferred, Ganjam District** (from [Ashok Kumar Paikaray](#), Mahavir Yubak Sangh, Orissa)

The district is severely affected by saline water in Chhatrapur block thus having a huge demand for water harvesting as compared to desalination alternatives at the 'community' level. This is because women prefer having their own community water tank, as pumping water from the tank is easier than bringing treated water from a source far away from home. Women are willing to pay for and bear the cost of maintenance of the tank and hand pump.

**Gujarat**

**Individual Efforts to Reduce Burden on Women, Rajkot District** (from [Harinesh](#), Janpath, Ahmedabad)

Premjibapa, from Vrukshprem Seva Trust works in 30 villages. In seven years, he successfully created 1539 checkdams built with people contributing to 45% - 60% of the cost. These small check dams helped revive Fofal river. Women and girl children saved significant time than earlier in fetching water. Another example is in Okhamandal block, Jamnagar district, Gujarat, where efforts at rain water harvesting with women's participation created a positive impact in health.

**International**

**Morocco**

**Gender-Inclusive Development in a Rural Water Supply and Sanitation (RWSS) Project** (from [Bonani Dhar](#), UNIFEM, New Delhi)

The project formed mobile participation teams in each province with, where possible, at least one female team member and using participatory rural appraisal, found in many villages that women's highest ranking problem was lack of adequate potable water, which differed from men's priorities. Project thus aimed at reducing the water-collecting burden of girls, freeing up time to attend school and providing gender sensitive training during the preparation phase. Read [more](#).

From [Ramya Gopalan](#), Research Associate

**Pakistan**

**Water Provision Encourages Women's Entrepreneurial Activities**

This ADB-funded project brought water to 325 poor/remote rural villages, transforming 800,000 lives, benefiting women and children who no longer have to carry the water long distances, freeing this time and energy to engage in livelihood activities. This project involved women and men in all aspects of the planning, design and implementation. Water related diseases reduced by 90%, household income increased by 24% and school enrolment up by 80%. Read [more](#).

**Nepal**

### **Gender-Responsive Water Users Associations (WUAs)**

This involved an irrigation canal and 17 settlements, designed to test and document ways in which women could contribute to irrigation management and improved agricultural production. It proved its success by improving women's participation in (WUAs), and learning to manage technical aspects of irrigation canal maintenance/operation and water distribution/management. A Women's Facilitator Group, helped improve skills of women, involving them in decision-making.

### **Mauritania**

#### **Pilot Project Training Women to Manage Water Resources, Oasis of Ouadane**

Access to adequate water resources is a top priority for the Ouadane community and women and children form the majority of its population. Women's activities produced very small incomes due to the lack of appropriate training, limited access to water resources and inadequate management structures. The project thus initiated in 1996, aimed at facilitating access to water resources (domestic, agricultural, handicrafts) and setting up an adequate training programme.

### **South Asia**

#### **Crossing Boundaries Project** (from [Chanda Gurung Goodrich](#), *Eastern Himalayan Indigenous Women, Kalimpong, West Bengal*)

This Project works on building regional capacities on Integrated Water Resources Management, Gender and Water. A part component involves training of Masters/PhD students from project partner institutes in India, Bangladesh, Sri Lanka and Nepal as well as women water professionals. The project also developed curriculums for students, training and supporting PhD students in participatory research methods and gender and social analysis. Read [more](#).

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## **Related Resources**

### ***Recommended Documentation***

From [Bonani Dhar](#), UNIFEM, New Delhi

#### **Community Driven Development and Gender and Social Inclusion**

Paper; The World Bank Group; 2004

Available at [Link](#)

*Presents conceptual clarity on Community Driven Development projects explaining a set of principles for incorporating gender and social inclusion*

#### **Rural Water Supply and Sanitation Toolkit for Multisector Projects**

Report; Rural Water Supply and Sanitation and Social Funds Thematic Groups; The World Bank and BNWP; November 2004

Available at [http://www.worldbank.org/html/fpd/water/rwsstoolkit/material/rwss\\_pub.pdf](http://www.worldbank.org/html/fpd/water/rwsstoolkit/material/rwss_pub.pdf) (PDF Size: 618 KB)

*Providing practical advice to task teams of community-driven development programs and clients in improving quality, sustainability and gender inclusion in RWSS investments*

#### **SARAR Collaborative Decisionmaking: Community-Based Method**

Section of a Book; Appendix I. Methods and Tools; The World Bank Participation Source Book; The World Bank Group

Available at <http://www.worldbank.org/wbi/sourcebook/sba105.htm>

*Participatory training which builds on local knowledge and strengthens local abilities, initially used in the watsan drawing from the community, focusing on gender aspects.*

### **Community-Based Sanitation**

Search Records; British Library for Development Studies; Institute of Development Studies (IDS); Brighton; 2007

Available at [Link](#)

*Provides various training modules and methodologies in community based water and sanitation and poverty alleviation programs; focusing on gender and inclusion of women*

From K. Mahesh Kumar, Consultant, Bhopal ([Response 1](#); [Response 2](#))

### **The Positive Path - Using Appreciative Inquiry in Rural Indian Communities**

Paper; by Graham Ashford and Saleela Patkar; DFID, IISD and MYRADA; International Institute for Sustainable Development (IISD); Canada; 2001

Available at <http://www.solutionexchange-un.net.in/environment/cr/res29060701.pdf> (PDF Size: 2 MB)

*Details the methodology enabling the community to first build a development vision, and then isolate the target project interventions to be addressed by the institution*

### **Gender Guidelines Water Supply and Sanitation**

Supplement; AusAid Guide To Gender and Development; March 2000

Available at [http://www.gdrc.org/uem/water/gender/gender\\_guidelines\\_water.pdf](http://www.gdrc.org/uem/water/gender/gender_guidelines_water.pdf) (PDF Size: 76 KB)

*Analysis questions designed to assist managers for the appraisal of WSS projects and for contractors to incorporate gender perspectives in WSS activity preparation and design.*

### **Water and Sanitation**

Book (Chapter 23); by Christophe Bosch, Kirsten Hommann, Gloria Rubio, Claudia Sadoff, and Lee Travers; PovertyNet; The World Bank

Available at [http://poverty2.forumone.com/files/13887\\_chap23.pdf](http://poverty2.forumone.com/files/13887_chap23.pdf) (PDF Size: 326 KB)

*Aims to assist policymakers/sector departments in the design of water and sanitation strategies that actively address needs of the poor and ensure gender and social inclusion*

### **City that Drinks the Mountain Sky** (from [Deepa Prabhu](#), ICICI Bank, Mumbai)

Presskit Documents; Army of the Sea Theatre

Available at <http://www.armofthesea.org/presskit/documents/CityDrnk.pdf> (PDF Size: 454 KB)

Available at <http://www.tribecapac.org/documents/TribecaPAC-CityThatDrinks.pdf> (PDF Size: 198 KB)

*Accounts the epic story of New York City's water supply, told in the elemental beauty of puppet theatre and other useful tools which can be used for interactive training activities*

From [Ramya Gopalan](#), Research Associate

### **Technical Training Of Women For Income Generation Through Appropriate Technological Interventions**

Project Brief; Technology Informatics Design Endeavour (TIDE); Bangalore; April 2002 - April 2004

Available at <http://www.tide-india.org/projects/06%20W&L%20technical-training-of-women.html>

*Records experiences of one micro enterprise of rural women SHGs constructing terracotta water purifiers with zero B or conventional candles coated with silver oxide.*

### **Achievements of SEWA's Water Campaign**

Project Report; SEWA; Gujarat

Available at <http://www.sewa.org/campaigns/water.asp>

*Accounts SEWA's water campaign, which trained women in rural areas to maintain and repair hand pumps, and encouraged their overall participation in water management*

### **Working with Women and Men on Water and Sanitation: An African Field Guide**

Paper; Network for Water and Sanitation (NETWAS), Nairobi, Kenya and IRC International; 1994

Available at <http://www.irc.nl/page/1858>

*Contains guidelines, aimed to provide guidance on planning and implementing water and sanitation projects and programmes with a gender-aware approach*

### **December Focus - Women and Water**

Newsletter; Water for All News, Asian Development Bank; 2 December 2003

Available at [http://www.adb.org/Documents/Periodicals/Water/2003/issue02\\_dec03.pdf](http://www.adb.org/Documents/Periodicals/Water/2003/issue02_dec03.pdf) (PDF Size: 235 KB)

*Focuses on gender in South Asia and offers case studies that demonstrate women's initiatives to improve conditions in circumstances of poverty and scarcity of water supply.*

From [Sarika Dhawan](#), Research Associate

### **Session Report- Women, Water and Poverty Reduction; Women as a Target Group or a Full Partner?**

Session Report; by Drs. Alice Bouman-Dentener and Ms. Sascha Gabizon; 17 March 2003

Available at [http://210.169.251.146/html/wwf/GENP-021\\_GENP-02-rpt.doc](http://210.169.251.146/html/wwf/GENP-021_GENP-02-rpt.doc) (Document Size: 48 KB)

*Session report of the ministerial conference addressing water issues through ownership and partnership of women for sustainable development.*

### **Gender and Water in Central Asia**

Session Report; International Scientific-Practical Conference, Water Partnership in Central Asia; Almaty; 26 - 28 May 2004

Available at [http://gender.cawater-info.net/publications/pdf/almaty\\_brochure\\_eng.pdf](http://gender.cawater-info.net/publications/pdf/almaty_brochure_eng.pdf) (PDF Size: 64 KB)

*The session report on gender and water in Central Asia suggests ways to establish cooperation among various agencies and individuals on gender issues.*

## ***Recommended Organizations and Programmes***

### **Crossing Boundaries (CB) Project, South Asia, SaciWATERS, Hyderabad** (from [Chanda Gurung Goodrich](#), *Eastern Himalayan Indigenous Women, Kalimpong, West Bengal*)

Plot No.125 &126, S. P. Colony, Trimulgherry, Secunderabad 500 015, Andhra Pradesh; Tel: +91 40 65762865/27990139; Fax: +91 40 27796721 [crossing.boundaries@saciwaters.org](mailto:crossing.boundaries@saciwaters.org); <http://www.saciwaters.org/cbhome.asp>

*Developed as part of the CB Project a curriculum for PhD students, training and supporting them in participatory research methods and gender and social analysis*

From M Jahangir, *Drinking Water-Pakistan- Google Groups, Islamabad, Pakistan*; [response 1](#)

### **Pakistan Environmental Protection Agency (Pak-EPA), Pakistan**

311, Margalla Road, F-11/3, Islamabad 44000, Pakistan; Tel: +92519267621; Fax: +92 51 9267625; [pakepa@isb.compol.com](mailto:pakepa@isb.compol.com); <http://www.environment.gov.pk/index.htm>

*Serves as an important knowledge resource and stakeholder, providing technical assistance to Ministry of Environment for formulating policy and programmes*

#### **Health Services Academy, Pakistan**

Health Service Academy, 12-D West Bawel Plaza, Blue Area, Islamabad; Tel: +92 51922 2104; Fax: +92 51922 2034; [http://www.cpp.org.pk/DBEstablishment/estb\\_59.shtml](http://www.cpp.org.pk/DBEstablishment/estb_59.shtml); Contact Dr. Aijaz .A. Khan

*Recommended as an important stakeholder and facilitates several trainings in environmental health from International Health Agencies such as W.H.O. and UNICEF*

#### **UNICEF, Pakistan**

90 Margalla Road, F - 8/2, Islamabad; Tel: +91 51 2097700; Fax: +92 51 2097799  
[islamabad@unicef.org](mailto:islamabad@unicef.org); <http://www.unicef.org/pakistan/index.html>

*An important stakeholder and sector expert on drinking water, and treatment, and serves as a knowledge resource for trainings on water with a gender focus*

#### **WHO, Pakistan**

PO Box 1013, Islamabad; <http://www.whopak.org/default.htm>

*Recommended for guidelines on drinking water which serves as an important resource for training programs on water*

#### **Ministry of Industries, Production and Special Initiatives, Pakistan**

Tel: 051 9206804; Fax: 051 9205130 [info@moip.gov.pk](mailto:info@moip.gov.pk);  
<http://www.pakistan.gov.pk/ministries/index.jsp?MinID=13&cPath=142>

*Installed over 6000 water filtration plants in the country to provide immediate relief by providing clean drinking water and serves as a knowledge resource for training on water*

#### **Pakistan Council of Research in Water Resources, Pakistan**

<http://www.pcrwr.gov.pk/>

*Recommended as an important stakeholder with required knowledge resources and area of expertise for the training of women in water networks*

#### **Training and Development Center, Hyderabad** (from [Jyothika Banerji](#), Ministry of Panchayati Raj (MoPR), GoI, New Delhi)

11-13-242 Road No 5, Alakapuri Colony, Dilsukhnagar, Hyderabad; Tel: +91 40 24032689; Contact Mr. Y. Narasimhaiah; Secretary; [tdchyd@gmail.com](mailto:tdchyd@gmail.com)

*Undertook an initiative for women in up gradating their knowledge as well as skill to earn money such as training to be hand pump mechanics, masons, awareness creators etc*

#### **Maithri, Kerala** (from [Vinod Kumar P](#))

DPO Road, Palakkad 670014; Tel: +91 4912538647; [maithri@sancharnet.in](mailto:maithri@sancharnet.in)

*Recommended for its experience in using the problem tree tool for training on community owned and operated natural resource management projects*

#### **Andhra Pradesh Farmer Managed Groundwater Systems Project, Andhra Pradesh** (from [P.S. Rao](#), FAO India, New Delhi)

Technical Support Team Office, Block No. A-2(c), First Floor, Huda Commercial Complex, Tarnaka Hyderabad 500 007, Andhra Pradesh; Tel: +91 40 27014730; Fax: +91 40 27014937  
[konda\\_c@rediffmail.com](mailto:konda_c@rediffmail.com); <http://www.apfamgs.org>

*Used training modules - Farmer Water Schools conducted in seven districts for 11,000 farmers ensuring better water resources management with a gender focus*

**Women and Water: Resources Supply and Use, UNESCO, Kenya** (from [Ramya Gopalan](#), Research Associate)

PO Box 30592, Nairobi, Kenya; Fax: + 254-2-215991 [e.naah@unesco.org](mailto:e.naah@unesco.org);  
[http://www.unesco.org/water/ihp/women\\_and\\_water.shtml](http://www.unesco.org/water/ihp/women_and_water.shtml)

*Aims at improving the quality of life of women in rural and urban areas in Sub-Saharan Africa, by facilitating their access to and improving management of water resources*

From [Sarika Dhawan](#), Research Associate

**Srijan India, Madhya Pradesh, Karnataka and Rajasthan**

Near Bus Stand, Adjacent to State Bank of India, Jaisinagar, District Sagar, Madhya Pradesh 470 125; Tel: 07584 270245; [jaisinagar@srijanindia.org](mailto:jaisinagar@srijanindia.org); <http://www.srijanindia.org/>

*The NGO focuses on water, water based livelihoods involving participation of women through tank user groups, and community based organizations like Self-Help Groups.*

**Water, Households and Rural Livelihoods (WHIRL), India, UK and South Africa**

Lead Contacts: National Resource Institute, UK; AWARD, South Africa; Accion Fraternal, India; Accion Fraternal, Anantapur, Andhra Pradesh; Tel: +91 8554246660; [actionf@sancharnet.in](mailto:actionf@sancharnet.in);  
[http://www.nri.org/WSS-IWRM/proj\\_outline.htm](http://www.nri.org/WSS-IWRM/proj_outline.htm); Contact Mr. Y.V. Malla Reddy

*Promotes innovative strategies, shares experiences and facilitates research, workshops and study visits on participatory watershed development with a gendered focus*

**Women for Water, Water for Women (WfWfW), The Netherlands**

WfWfW Steering Committee, p/a Secretariat, Benoordenhoutseweg 23, 2596 BA The Hague, The Netherlands; Tel: +31 70 3469303; Fax: +31 70 3459346 [secretariat@womenforwater.org](mailto:secretariat@womenforwater.org);  
<http://www.womenforwater.org/>; Contact Margaretha Bakker; Coordinator;  
[coordinator@womenforwater.org](mailto:coordinator@womenforwater.org)

*An alliance functioning as an interface between local women groups, (inter)national networks/organisations responsible for sustainable water management*

**Recommended Communities and Networks**

From [Sara Ahmed](#), GWA Steering Committee Member, Ahmedabad

**Cap-Net South Asia, Pakistan**

Regional Secretariat, Based at Society for Participatory Development, F-1, Eden Banjara, Ave-8, St.7, Aurora Colony, Banjara Hills, Hyderabad 500034; Tel: +91 40 65541838; Fax: +91 40 66617985; [capnetsaoffice@gmail.com](mailto:capnetsaoffice@gmail.com)

[http://www.capnetsouthasia.org/countrycap\\_pakistan\\_launchintro.htm](http://www.capnetsouthasia.org/countrycap_pakistan_launchintro.htm)

*Capacity Building Network for Integrated Water Resources Management, providing a solid opportunity for improved outreach, co-ordination and delivery of capacity building*

**Gender and Water Alliance, Netherlands**

P.O. Box 114, 6950 AC Dieren, The Netherlands; Tel: +31 313 427230; Fax: +31 313 427230  
[secretariat@gwalliance.org](mailto:secretariat@gwalliance.org); <http://www.genderandwater.org>; Contact Ms. Joke Muylwijk;  
Executive Director; [jokemuylwijk@chello.nl](mailto:jokemuylwijk@chello.nl)

*Global network to promote for women and men equitable access to and management of safe and adequate water, domestic supply, sanitation and environmental sustainability*

**Recommended Portals and Information Bases**

**International Year of Freshwater 2003, UNESCO** (from [Deepa Prabhu](#), ICICI Bank, Mumbai)

View [Link](#); Contact [wateryear2003@unesco.org](mailto:wateryear2003@unesco.org)

*The site provides many resources for use such as maps, toolkits, events calendar, programmes to which one can contribute or use and ideally do both for training activities*

**Women, Water Supply and Sanitation: INSTRAW's Training Initiatives, United Nations International Training Institute for the Advancement of Women (UN-INSTRAW), Dominican Republic** (from [Ramya Gopalan](#), Research Associate)

View [Link](#); Contact Tel: (809) 685-2111

*Aims to establish the relationship between women, water supply and sanitation, promoting their needs and participation using multimedia and modular training approach*

**The Gender Water Network, Research School of Pacific and Asian Studies (RSPAS), Australian National University (ANU), Acton** (from [Sarika Dhawan](#), Research Associate)

<http://rspas.anu.edu.au/gwn/>; Contact Kuntala Lahiri-Dutt; Coordinator; Tel: +61 6125 4343; [kuntala.lahiri-dutt@anu.edu.au](mailto:kuntala.lahiri-dutt@anu.edu.au)

*Links students/professionals/researchers interested in gender concerns in water resource management, includes farming, irrigation, community-based and household activities*

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## Responses in Full

**[Chanda Gurung Goodrich](#), Eastern Himalayan Indigenous Women, Kalimpong, West Bengal**

I work for SaciWATERS, an organization based in Hyderabad. Currently we are doing a project called Crossing Boundaries - Regional capacity building on Integrated Water Resources Management, Gender & Water in South Asia. (See [www.saciwaters.org](http://www.saciwaters.org) for details).

One of the components of the project involves capacity building of Masters and PhD students from project partner institutes in India, Bangladesh, Sri Lanka and Nepal as well as women water professionals. In this connection, the project has developed curriculums for students and will train and support the PhD students in participatory research methods and gender and social analysis. We will also hold workshops and trainings for women water professionals. Apart from this, the Project is also setting up a Water Professionals Network in South Asia.

I would like to congratulate for including mainstreaming gender issues in water in your agenda and more so for the design of training for women on creating water networks. This is so critical.

My suggestions on the course content are:

- Participatory research and development - concepts, management principles, and tools
- Gender Analysis - concepts, issues and analysis. Plus importance and reasons for inclusion of both men and women - The Question of WHY?

Methodology:

- Participatory - for participants to come up with their own understanding, ideas, etc.
- Also a field tour plus work
- Videotaping their performance/work in the field would be great as they could review it once they return from the field and see for themselves what went well and what went wrong

On a personal note, I would be grateful if you could send us more information on this workshop and training.

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**[Ramesha C Gowda](#), Karnataka State Pollution Control Board, Bangalore**

I suggest looking into the option of permeable reactive barriers in addressing all the issues of safe drinking water source. The technology is not tested in India and has not even been taken up for research. But the technology has advantages of reducing groundwater contamination and could be boon in water scarce area.

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**[Jyotsna Bapat](#), Independent Consultant, New Delhi**

The easiest way to train the trainers is through providing them course material and case studies of good practices, which they can validate in their own country but which has not yet become a norm or a common practice. So when they go back to train their target audience, they can use some 'hands on' experiences and get them to do it themselves as part of their 'homework' after the training program is over. They can also promote some publicity through competition on lines of "Nirmal Gram Puraskar". After all, training programs need to ensure that actions on ground actually happen.

For example the following two examples are fairly generic and can be incorporated in the course material:

1. My field work in rural India has indicated that providing technology solutions for drinking water supply with minimum drudgery for women works best when the spare time generated can be gainfully used for some economic activity to generate incomes. This allows them to take care of the Operation and Maintenance costs of such systems, so essential to keep these infrastructures live and functional.
2. When drinking water supply is seasonally scarce, water from irrigation wells can easily supplement it and carry through the lean season. But this requires pumps and tankers which need resources. So again women with independent source of some economic incomes can get their men to do it for them over longer distance.
3. Water quality testing in school labs could be done, as we know from various examples mentioned in Solution Exchange.

Hope this process driven approach appeals to you

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**[Hiren Patel](#), CHETNA, Ahmedabad**

I worked for three years in a state level network on drinking water and sanitation. In my opinion following points should be included in the training programme:

1. Decentralized drinking water and sanitation program- which involves the community right from planning to implementation
2. Rain Water Harvesting for drinking water needs

3. Region specific traditional rain water harvesting system (e.g. *tanka* in Rajasthan which ensures drinking water for villagers even in summer) so that master trainers impart training relevant in their respective field areas
4. Community mobilization and setting institutional mechanism at community level for management of decentralized drinking water program

For the training methodology, it should be participatory and the participating organization/ individual should be asked to send an area specific case study showing gender integration or women's involvement in the drinking water and sanitation program. These case studies should be screened by experts before the training program and the short-listed case studies should be presented and analyzed by resource persons in the training. Participants would thus become clear about the demonstrated experience on gender integration in drinking water and sanitation.

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#### **Y. Narasimhaiah, Training and Development Centre, Hyderabad**

We have a long experience of training women as hand pump mechanics and masons apart from using women as awareness creators, messengers of problems and solutions. We have formed a network WOMENNET with the support from WATERAID INDIA in which all the women headed NGOs, Mahila Mandals and MACts are the members.

The result:

- The hand pumps maintained and repaired by these groups never went out of order by improper handling. Regular wear and tear repairs are common.
- The environment in the surroundings of the water source is very clean.
- The ownership on the source is established.
- The quality of construction of toilets is far superior, as they never counted time and money.
- The usage of the toilets is more and whole families used it.
- We faced a criticism that we are burdening the women with more workload but this is not true, as it is only daily work where they earn money out of it. It is not an additional workload on them.

Supporting such moves needs to be encouraged.

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#### **M Jahangir, Drinking Water-Pakistan- Google Groups, Islamabad, Pakistan (response 1)**

Apparently, the query aims at getting together various stakeholders on drinking water, domestic care and treatment and getting an update from them on the latest happenings in this field. This is part one.

Then we have the training of trainers for rural women to enable them to sensitize women and to make use of knowledge gained in part one to enhance water management and related issues. In Pakistan, knowledge resources (and area of expertise) are:

- Pakistan Council of Research in water resources (Water quality, salinity, Arsenic and treatment)
- Pakistan Environmental Protection Agency (Pak-EPA) (National DW policy and Standards)
- Health Services Academy (DW Standards)
- UNICEF Pakistan (DW Policy and Hygiene)

- WHO Pakistan (DW Standards)
- Ministry of Industries (Installing more than 6000 water filtration plants in the country to provide immediate relief by providing clean water for drinking)

It may be good to deal with this in two steps:

1. Collecting Knowledge from the above-mentioned resources and to tie up with World Bank, which is working on knowledge management on water, sanitation and hygiene in Pakistan.
2. Organizing this material for transfer to the trainers, and practically delivering the training.

#### **My Suggestions:**

1. Let us work on water, sanitation and hygiene at the same time, they are very much interconnected
2. Most of these resource groups and people in NGO, Universities, and service providers are members of our group and should have learnt about it by now. Let us wait for them to respond.
3. If you happen to come to Lahore or Islamabad, you may like to meet them; we can provide you contact details
4. Colleges of community medicine are also good stakeholders and maybe contacted.
5. We should be able to list contacts of NGOs on this subject also.
6. It may be a good idea to share details of the web site where details of this meeting are on.
7. Kindly let us have the detailed objectives of this training and the monitoring and evaluation parameters.

#### **Pradeep Kumar Ghosal, Women Development Corporation, Bihar**

This is an important issue to be discussed, but from my own experience, it has been observed that introduction of Drudgery Reduction component is most crucial and needs to be addressed and inculcated into the training /workshop module. This is because the major sufferers are women folk, as they need to go to far-flung areas in search/collection of water. The introduction of people friendly technology is one of key way out. Hence, we need to give stress to the same.

#### **Jyothika Banerji, Ministry of Panchayati Raj (MoPR), GoI, New Delhi**

Involvement of women in tools training like hand pump repairing, Diesel pump repairing, and masonry is not new in this country. There are several examples in different parts of the country and other parts of the world. Now the point is selection of women to handle such activities. It is a fact that **Poor Women Are More Poor than Poor Men** and once they start earning money they spend a major portion of it for their family and children. A woman from a **marginalized/poorest of the poor** family works for **17-18 hours** in a day. In addition to this now a days, they are also involved in saving-credit activities and spend time in training and exposure visits. We admit that it consumes a considerable amount of time.

In my opinion, I strongly feel that women should actively participate in skill training so that they can slowly enter into the organized sector. The **Training and Development Center, Hyderabad**, has taken up a good initiative for women in the up gradation of their knowledge as well as skill to earn money. Now, to avoid criticism they can develop **time flow chart** of each woman, which can show the use of time for productive purposes as well as monetary return. For example, a female chief executive officer in any Company is always over loaded. What can be

done? Last but not the least if women are happy with such activities there is no importance given such criticism. The organization may organize an interactive meeting between the critique and the women's group.

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**Bonani Dhar, UNIFEM, New Delhi**

Women play a crucial role in managing water at the community level. The sanitation and management of resources are best achieved through instilling well designed training programs with an aim to build up capacities of community members, especially women.

Gender and social inclusion in community driven project is important. The projects that have been designed with gender needs, on the basis of gender analysis and participatory planning have been seen to be successful with measures for longer term sustainability. Community driven water and sanitation projects have given importance to social and gender inclusion and sustainability issues with focus on building up capacities of people to manage them. One of the fine examples is of DANIDA funded Water and Sanitation projects in Tamil Nadu, where women had been trained to repair hand pumps. In this context it is important that principles of gender and social inclusion in community driven projects are essentially built in. The following link from the World Bank resources, presents conceptual clarity on Community driven projects:

<http://lnweb18.worldbank.org/ESSD/sdvext.nsf/PrintFriendly/78D5CE03D2DB196485256D4B00723AE0?Opendocument>

Having said that, gender training modules, the training venue and hands-on training programs detailing practical measures are imperative. World Bank has designed several gender training tool kits for its water and sanitation projects. The following link presents a water supply and sanitation tool kit which has been tested for its operational efficiency in Egypt and Indonesia:

[http://www.worldbank.org/html/fpd/water/rwsstoolkit/material/rwss\\_pub.pdf](http://www.worldbank.org/html/fpd/water/rwsstoolkit/material/rwss_pub.pdf) (Size: 618 KB)

It is also imperative that participatory training methodologies are applied to instill hands-on knowledge to the participants, in simple understandable language. Among many participatory methods, "SARAR" is a participatory approach to training that builds up the knowledge base and collective strength of the community members. The following link explains the details of the method, which has been widely used in development interventions:

<http://www.worldbank.org/wbi/sourcebook/sba105.htm>

Prior to designing a training program, it is also imperative to conduct a training needs analysis as well as critically examine the internal and external factors to make it practical and focused, because training is just the beginning of a development intervention. The following link takes you through various training modules in community based water and sanitation and poverty alleviation programs:

[http://www2.ids.ac.uk/blids/guides/search\\_water.cfm?StartRow=41&search=community-based\\_sanitation](http://www2.ids.ac.uk/blids/guides/search_water.cfm?StartRow=41&search=community-based_sanitation)

Finally, participatory training methodologies need interesting presentation methods to be weaved in the programme to arrest the attention of an adult learner. Hence, all training modules should have session delivery design and methods clearly detailed for the trainers to follow in a step-by-step method.

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**Latha Bhaskar, Consultant (Social Development Sector), Kerala**

May I suggest considering the following in the trainers training.

- Short documentaries/video clips on best practices/ viable models, across the world that can give them lasting impressions to manage water and sanitation issues.
- Explore the possibility of involving local technocrats/ Technical institutions to develop area specific, viable technology choices, to resolve water quality and sanitation issues.
- For waste management, promote decentralized methods, handling waste at the source of production. Diversified, simple containers (Ferrocement/earthen pots etc) to facilitate easy composting of degradable wastes that can be used in homesteads etc need to be developed and marketed through Self help groups.
- Simple water quality testing kits and village extension workers to test water quality need to be promoted by village panchayaths. Let them do simple screening of water quality on specific fee and take samples for complicated tests to higher labs. Also such teams can be trained to check the pollutions channels of drinking water sources, to plug them appropriately along with community awareness building.

I think in trainers' training programs the focus needs to be on practical tips whether it is to find out technology options or arranging service support facilities. The role of trained women groups to manage such issues as entrepreneurs, service providers, skilled workers etc can be combined to these.

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**Subba Rao, Center for Resource Education, Secunderabad**

I have more than 20 years of experience working with grass root groups, and recently I had the opportunity of developing three trainer's training manuals in Telugu, a vernacular language. These manuals have self explanatory illustrations and are on our community resources :

1. Green/ tree resources
2. Water resources and
3. Land resources

I have also translated the first two manuals into English. The water resources manual has simple guidelines to conduct water auditing through community participation. Soon I will send illustrations from the water manual, which depict impact on women due water resources scarcity. These manuals were placed before the women sanghas [groups] prior to finalization. Similarly, I have developed a manual on municipal solid wastes.

Please feel free to contact me for further information.

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**Vinod Kumar P, Maithri, Palakkad, Kerala**

The challenge here is to develop skills among the Trainers to train women about organizing community managed rural water supply networks. There are many aspects for the programme. One is an emotional commitment to the cause. Second is the skill to develop a community project, which will be owned up by the community. Most of our training materials are not enthusing the community for an attitudinal change.

For this, you have to use participatory tools. Problem Tree may be an ideal tool for a community. This will bring out the entire experience and knowledge of the participating community. An intelligent facilitator can give the necessary inputs about the parameters mentioned, if needed. Then the community will automatically develop the solutions, which will be the project you want.

In my experience in hundreds of communities where we developed community owned and operated natural resource management projects- rural water supply, participatory irrigation, community micro hydro, watershed management etc.; this was the most important tool which did the trick. Sometimes it took us two days to complete a single exercise, but it was worth it. You can certainly add other participatory tools as well. But, simply viewing, listening, reading, attending meeting etc. will not ensure the real participation. It need relaxed a person to person interaction in familiar surroundings to clear doubts, worries etc. which is preventing them from real participation.

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**C. Udayashankar, Center for World Solidarity, Secunderabad**

The organisers of the subject training course may consider:

- Multi-media case studies on sustainable ground water use.
- Sustainable local institutions for managing drinking water units and interface with the official/line departments. There are federations of SHGs who are trained on the operation of Reverse Osmosis units and selling drinking water of bottled water quality at rates cheaper than that of bottled water.
- Ground water pollution and treatment for potable water (agro-chemicals and industrial pollutants, not just iron, fluoride, arsenic, etc.
- Group work on Participatory methods for auditing women's and children's time/daily schedule. Do women have time to spare for micro-enterprises, if they have to fetch drinking water, firewood, do domestic work, attend watsan committee/PTA and other meetings?

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**Rupesh Kumar Sah, Environment and Public Health Organization (ENPHO), Siraha, Nepal**

A major issue that you like to cover in the training is the problem of Arsenic contamination and its mitigation. In South Asia, Ground water is the main source of drinking water, which is contaminated by Arsenic in a number of places. Nepal is also affected by Arsenic and a technology called Kanchan Arsenic filter (KAF) is being promoted for its mitigation. I therefore request you to please put one of the options for Arsenic mitigation as KAF.

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**M.S. Gupta, Sarvangeen Vikas Samiti, Gorakhpur**

As a member of the Water Community, I am sharing few of my experiences in conducting training programmes on the above subject:

**Importance of water resources:** Water sources are an important feature of the biodiversity system. They are not only a significant source of precious water, but provide valuable habitats to human life, plants, animals, influence microclimate, enhance the aesthetic beauty of the landscape and offer many recreational opportunities along with being major constituents of rural sustainable lifestyle. Rapid increase in rural habitats and overall trend of increasing population in the villages as well as in urban areas has resulted in a gradual deterioration of surface and

ground water resources both. Besides degradation of catchment due to various anthropogenic pressure, eutrophication and decline in water quality, local environmental pollution of surface and ground water, siltation and consequent shallowing of water ponds, lakes, reservoirs and loss of biodiversity are the major problems in the area for sustainable livelihood.

I therefore propose that the proposed training of trainers may include participants from policy and decision makers, grassroots NGO representatives, Govt. officials, experts from technology developers, environmentalists, women's organisation, District/ block /village Panchayat representatives and many others from concerned organisations along with related students. The training course may have:

- 1- Plenary session with distinguished speakers
- 2- Concurrent technical session with keynote address on various thematic areas by eminent experts.
- 3- Selected audio visuals training programme on various issues with oral presentation
- 4- Presentation of success stories with a/v aids
- 5- Poster presentation
- 6- Group formation and presentation, etc.

Up to 6 to 7 parallel sessions may be anticipated each day to cover a wide range of participants and topics. After the end of the training programme, several groups may be organised to discuss major issues and formulate recommendations for future discussion. Following may be the major topics:

- 1- Rainwater harvesting and wastewater reuse
- 2- Ecological issues relating to WSUD in South Asia
- 3- Development of water sources
- 4- Water cycle management in South Asia
- 5- Water conservation and environmental protection
- 6- Development of water quality, health guidelines for rain water harvesting and waste water reuse.
- 7- Water policy and health issues in regards to gender
- 8- Economics of integrated water strategies.
- 9- Water reuse, water conservation, agriculture and technology for sustainable living.
- 10- Building the capacity of society and institution.

I trust that above tentative topics will be highly need based for the participants in S Asia.

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**Hitesh Chakravorty, District Elementary Education Office (DEEO), Hailakandi, Assam**

Women play the major role for maintaining household level **Safe Drinking Water and Sanitation System**. To sensitize women, they need an orientation in basic Environmental Education and Training Program to manage safe drinking water source and sanitation system in the rural areas.

Based on twelve years experience in the Village Level Water Supply and Sanitation Sector, my opinion for such projects is:

- Training Program should be conducted after identifying the local problem - if possible village level or else a district level problem. Same type of training program should not be conducted throughout the state.
- Co-ordination must be maintained among the different organizations such as Education Department, State Government Agencies, NGO, International Organization etc in higher level as well as lower level.

- Proper and effective communication channel should be set up after Training Program with the Trainee for proper follow-up.
- Trained women should be given proper incentive by User's Groups for maintenance of community Safe Drinking Water Source and Sanitation Systems.

Women's participation in safe drinking water and Sanitation Project will thus reach new dimensions in the coming years.

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**Alka Rawal, Aga Khan Rural Support Programme India (AKRSPI)  
Ahmedabad**

I am associated with Aga Khan Rural Support Programme (India) working on issues of salinity in water, especially in coastal areas. While working on issues of water, I feel it would be useful for the potential trainers to include sessions on the following:

1. Overview / status of water in South Asian countries
2. The political economy of resources, particularly water
3. Efforts by corporate and industries in management and sustenance of water
4. Water in different ecological situations like coastal, desert and mountains
5. Panchayati Raj, women and water issues
6. Efforts by civil society organizations/ individuals
7. Movements for conservation of water like Saurashtra
8. Efforts by the government / state – approach, major government schemes / programmes, actions taken
9. Advocacy - through print media, legal action, networking, etc.

The methodology may include games for understanding the economy and hydrology of groundwater. Hands-on training with water quality testing is found very effective in rural areas. It would be useful to include the economic impact of consuming poor quality water in terms of wage loss and medical expenses.

Hope this will be useful for the said meeting.

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**P.S. Rao, FAO India, New Delhi**

I would like to share with you – experiences from one of our field program – APFAMGS in Andhra Pradesh, India. In this program we had extensively dealt with the two questions you have raised and specifically for the area of Groundwater management with several add-ons. These training modules are known as “Farmer Water School”.

As far as the contents for the TOT course is concerned, we realized it is important to include special sessions on Facilitation skills, Design of experiments (small scale-on the field), Team building, Monitoring & Evaluation, Curricula development, etc. apart from the technical contents as listed by you and others. These become very important as the participants are expected to train others after this course.

In our program we gradually moved over a period of time from class room teaching to on-field experimentation and from lecturing on various topics to facilitation by experts for enabling discussion among the participants and allowing room for curricula development based on the

local problems/priorities. This methodology is known as combination of Non-Formal Education (NFE) techniques and Experiential Learning Cycle.

These are used on a full scale in the last two years in our field program and we have seen tremendous success with visible impact on the ground and much higher enhanced participation by the farming community. Last hydrological year (June 2006 – May 2007) Farmer Water Schools were conducted in seven districts of Andhra Pradesh with a participation of around 11,000 farmers on a regular (once in 15 days) basis and our end assessment last month revealed that around 2,000 farmers are now fully capable of being facilitators (trainers) and will be conducting Farmer Water Schools on their own during this hydrological year (2007-08).

More details & documents can be located at [www.apfamgs.org](http://www.apfamgs.org) and more info can be sought from [konda\\_c@rediffmail.com](mailto:konda_c@rediffmail.com). We would be happy to enable participation of one or two key staff from this program in the Lahore workshop.

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**Harinesh, Janpath, Ahmedabad**

I represent Janpath, a network of voluntary groups from Gujarat.

I suggest that the content of the course could include case studies of grass root experience of creating water networks. I would like to share some of the remarkable work from Gujarat.

Premjibapa, from an NGO called Vrukshprem Seva Trust works in 30 villages of Rajkot district. In the last seven years, he has been successful in creating 1539 checkdams built with 45 % to 60% of the cost coming from people's contribution. These small check dams have created magic, and the Fofal river in Gujarat has come alive again. Women and girl child have saved significant time which was earlier consumed in fetching water. Another example of such effort is in Okhamandal block of Jamnagar district of Gujarat, where efforts at rain water harvesting with women's participation has created a positive impact in health.

The course needs to be based on such grass root experience in various geographical conditions and various organisations should be asked to present their work.

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**Annie George, NGO Coordination and Resource Centre Nagapattinam, Tamil Nadu**

Just a few suggestions based on my experience with rural water supply and sanitation projects-

a. It would be good to get a holistic picture of the various uses for water through a water budgeting exercise. This would help the "managers" prioritise the supply vis- a- vis the demand, specially during the dry seasons. This should necessarily be done through a PRA exercise and a stakeholder analysis

b. Management aspects should definitely form a part of the curricula, especially financial management and Institution development. Conflict resolution should be another area to be focused on.

c. Although there is a strong school of thought that advocates teaching technical maintenance skills to the "managers", I have not found it a good option as the time period is too short to give them an instinctive understanding of the technical aspects- it is far more beneficial to train some

local youth (preferably an ITI or some diploma holders), which can also include girls, who can be accessed as and when required.

d. It would also be a good idea to have a strong component of **participatory M & E** right from the beginning, including designing of indicators right upto the impact assessment level. This will help in bringing the entire community together for a common purpose rather than seeing this as just the responsibility of the "manager/s".

e. It would be good if the participants are given an opportunity to do a field testing of the tools learnt. For instance, you could hold a theory session in the morning and a field based "hands-on" experience in the evening followed by a recap session in the evening when they are encouraged to come up with their reactions/ doubts/ observations etc.

f. It would also be good if you can bring in some "managers" to share their field experiences- including trials and tribulations- this provides a good impetus for questions and "what ifs" kind of discussions.

g. It would also probably be good to promote this as water resource management, which will necessarily bring in conservation, recharge, quality safeguards, water budgeting and water audit. Wishing you all success and do keep us informed about the outcome of this workshop.

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**[Sara Ahmed](#), GWA Steering Committee Member, Ahmedabad**

I have been reading all the interesting replies to your query and hope that I am not too late in adding my inputs. But first of all, I am very curious about the use of terms such as 'water networks', 'managed by rural women' for 'poverty alleviation'. How do such water networks fit into the larger context of decentralisation and water governance in Pakistan? I know that Solution Exchange is not a discussion forum per se, so I am marking a copy of this mail separately to you as I would really like to learn more about the context in which you want to do this capacity building.

There are several water networks in Pakistan (and South Asia) which are trying to address gender-mainstreaming issues in water management through capacity building and policy advocacy. Please do get in touch with Cap-Net Pakistan and the Women and Water Network too. (I am sorry I don't have the contact details right now, but could try and get them for you). I see that SaciWaters has already responded to your query. The Gender and Water Alliance ([www.genderandwater.org](http://www.genderandwater.org)) also has several members in Pakistan, both men and women, who are doing excellent work in some very difficult environments and we could put you in touch with our members there.

The GWA has several gender and water resources - please see our web-site - which can be translated into Urdu with due acknowledgement. Do get in touch with Ms. Joke Muylwijk, the GWA Executive Director, if you would like more information or to become a member ([jokemuylwijk@chello.nl](mailto:jokemuylwijk@chello.nl)). We have just supported an international ToT with Utthan in Bhavnagar, Gujarat on strategizing gender mainstreaming in water and sanitation. The report will be out soon and will contain illustrations, participatory exercises and reading materials which you can adapt for your use. Some of the topics you have listed below are covered, but we did a lot more on understanding and contextualising the relationship between women, men and water resources /water governance.

Most of the topics you have listed below are rather technical and 'mainstreaming gender issues in water' comes last while the ToT you are proposing is specifically for rural women water managers. I can well understand how challenging the socio-cultural context in Pakistan must be, but I urge you to start with people, women and men, look at their multi-dimensional relationship with water within given socio-economic structures and hydrological contexts (poverty, climate change, water-induced disasters, etc.), before you address this menu of technical and institutional options and their implications for more equitable, sustainable and gender just water management.

I wish you well and look forward to more substantive dialogue.

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[M Jahangir](#), **Drinking Water-Pakistan- Google Groups, Islamabad, Pakistan** (*response 2*)

This is a great initiative by UNESCO. I would comment as follows.

To achieve the real health benefits that will ultimately bring about the change in quality of life in this part of the globe, it will be advisable to not to restrict it to water only and that the training package should include drinking water, sanitation and hygiene as a whole. While we may like to work mainly with the women folk, it is also important to not restrict the program to women but to include men also, to prevent decreasing the wider impact of the programme.

Restricting it to rural areas alone may also be a handicap, since life in peri-urban locations is not much different and similar issues need to be addressed.

Let us not discuss what we have, rather, let us focus on what is needed and conduct a proper Training Needs Assessment (TNA) as follows:

1. Quality and quantity of drinking water. Water borne diseases are the earliest indicators.
2. Collection and storage of water.
3. What to see at the source of water.
4. Cleaning of water tanks
5. Actions in case of water borne disease.
6. Care to be taken for disposal of domestic waste solid and liquid
7. Defecation
8. Personal and home hygiene, e.g. hair, nails, etc.
9. Use of washed and sun dried cotton cloth for gender specific needs and
10. Use of soap for washing hands

Maintenance of hand pumps, the major source of water will also be an asset and could be covered in the topics.

Training methodology must be started on mass media like print, radio and TV and include focused programs in schools of selected area of all provinces and pre and post training impact analysis .

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[Ashok Kumar Paikaray](#), **Mahavir Yubak Sangh, Orissa**

Greetings from Mahavir Yubak Sangh, Orissa.

I would like to share my experience while working in Ganjam district in the District Water and Sanitation Mission (DWSM) in Khorda under Total Sanitation Campaign. The district is severely affected by saline water in Chhatrapur block. We found that there is a huge demand for water harvesting as compared to desalination alternatives at the 'community' level. This is because women prefer having their own community water tank, as pumping water from the tank is easier than bringing treated water from a source far away from home. Women are willing to pay for and bear the cost of maintenance of the tank and hand pump.

For the training, I suggest you may want the trainees to visit those places where women/ community members are using tanks for a long time and are happy.

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**Rachna Sarkar, UP Water Sector Restructuring Project, Lucknow**

I am working for Water Sector Restructuring Project being run in rural areas of U.P., which is basically an irrigation water management project. I am trying to mainstream gender into this process. Though women's role in urban water management is important, we cannot ignore the rural sector as our major population belongs to rural areas.

There is no point in detailing out the role of women in agriculture. Definitely, they have a larger role in agriculture as well as water management. But the major difficulty which I am facing to involve them is the fact that they are generally not land holders, hence cannot be members of any legal local organization. Anyhow, capacity building and sensitization is very important at this stage.

I suggest that the training aspects should also focus on the following areas:

1. Sensitization of Senior Officers about the role of women in water management.
2. Conjunctive use of ground and surface water for agriculture management.
3. How local women's organizations (SHGs) can be linked to Water Management Associations.
4. How to efficiently manage domestic water requirements.
5. How to manage water for other water related diversified activities.
6. How to mainstream gender into the legal framework of water sector (Water Management Acts and Policies).
7. Orientation about protecting/creating rainwater harvesting structures in their areas.

A participatory training, involving both men and women will be more effective at the level of farmers. Other stakeholders are also needed to be sensitized along with the Policy makers. The module should be separate for senior officers and for farmers' level training. The grassroots training should focus on actions based on local situations.

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**K. Mahesh Kumar, Consultant, Bhopal (response 1)**

In my experience, it is always the temptation of institutions implementing the projects to brush aside other "issues" of the community to keep the focus on the 'mandated issue' – For e.g., if we

are working on water and sanitation we don't want to discuss livelihoods with the community. Such isolated attempts would only ensure community involvement during the project implementation phase and once project withdraws there is greater chance for dilution of community mobilisation.

Contrary to this traditional practice, a methodology called "appreciative enquiry" galvanizes the community into building a development vision first, and then isolating the target project interventions to be addressed by the institution. This leaves a comprehensive development vision and a plan with the community and provides interventions on a selective issue, ensuring greater ownership and credibility of the community.

Greater community ownership comes in Water and Sanitation Projects, especially among women, once they not only empathise with their problems (through tools like 'problem tree') and look at the possible solutions. They also encounter their 'strength' to accomplish the project to fight against their own problems. I am attaching a document on appreciative enquiry for your reference at the link below:

<http://www.solutionexchange-un.net.in/environment/cr/res29060701.pdf>(Size: 2MB)

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**Mamta Chauhan, Institute of Entrepreneurship Development, Lucknow**

I have worked in the area of water and sanitation with a UNICEF project. I definitely agree with Mr. Jahangir that while focusing on women, we should not ignore men in the whole drive. They should not feel left behind and excluded, as this may lead to dis-balancing the social system. Rather, we may consciously try to strike a fine balance while designing our development programmes. After all gender does not mean targeting women alone. Participation of men will make them more responsive and informed, and will ultimately enhance the acceptance at family as well as community level also.

Prior to designing any capacity building intervention, it is always advisable to conduct Training Needs Assessment (TNA). In addition to TNA, I would suggest to do a resource mapping, also linking it with the seven components of sanitation.

While designing the IEC strategy, children should be kept in mind as change agents. They can be instrumental in carrying the messages from school to family and from there to community. Folk songs, puppet shows, magic shows, street plays often prove very effective IEC tools particularly in rural areas.

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**Rahul Roy, Bhoruka Public Welfare Trust, Kolkata**

It is obviously true that for creating water networks giving training to women is essential. But at the same time focus should be given to their men counterparts as well, because giving training to only women might give rise to some discrimination. The men folk might not feel interested in the execution of a proper water network. Moreover, imparting training to only women might lead men to conclude that it is solely the responsibility of women, while in reality such works are for both.

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**Maneel Grover, SDSG Foundation, Punjab**

With reference to the training, I suggest that you also involve stakeholders who have helped in implementing different phases of water supply projects at grassroots levels, like the World Bank project for Rural Water Supply in India.

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[K. Mahesh Kumar](#), Consultant, Bhopal (*response 2*)

Please find two Documents in the links below that can be used as training material in Water, Sanitation, Poverty and Gender.

### **Gender Guidelines Water Supply and Sanitation**

[http://www.gdrc.org/uem/water/gender/gender\\_guidelines\\_water.pdf](http://www.gdrc.org/uem/water/gender/gender_guidelines_water.pdf) (Size: 76 KB)

[http://poverty2.forumone.com/files/13887\\_chap23.pdf](http://poverty2.forumone.com/files/13887_chap23.pdf) (Size: 326 KB)

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[Smita Premchander](#), Sampark, Bangalore

Thanks for asking this question.

1. To my mind, water is used by women, but availability of good quality water is the responsibility of men as well, especially as they control the public spaces (Panchayat leadership, official positions...) and resources that affect water availability in villages. So please include both women and men in the trainings.

2. **Give technical training of assessing water quality** From my experience of working on the ground, the first most important need is to educate the women and men about WHAT are the standards of water that is potable. Many villagers know bad water from the diseases they get, and do not have the concept of checking water.

3. **Find out and organise visits to the nearest water testing laboratory, private or public** The next is also to be able to identify laboratories closeby, which can test water, and to establish a system, monitored by people, of getting water tested for potability every six months at least.

4. **Make the link between agricultural and other practices and water contamination, so to address the sources of contamination** With regard to rural areas, agricultural practices have to change, so that chemical contamination of ground water gets arrested, and this again means both women and men need to be involved.

5. **Research and inform all villagers about which authority/ department is responsible for providing potable water, sanitation, etc.** As suggested by Maneel Grover, it would also be good to involve the officials in the training, which brings them directly in touch with the constituents they are accountable to, and also gives a chance for direct relationship building.

6. **Research the implementation, and impact of large assisted projects** Finally, as I read the comment from Mr. Grover, a warning. I have seen in the district we work in Karnataka, that the World Bank funded project implementation is done in a way that a lot of public resources were spent, water purification plant was set up, and not a drop of water flowed from the system. The system was not started for three months after installing, when I visited it. The

government officers in charge were nowhere to be seen, and the village panchayat had contributed Rs. 60,000 to the plant costs, in the promise that the village will get free potable water, which did not happen. What did happen, however, was that the villagers now were wary of paying for potable water, and self managing a water purification system. These kind of projects raise expectations, do not deliver, and in the end reduce ownership of projects by villagers. We need to be careful while involving other stakeholders, and involve those who have a likelihood of making positive contributions.

The training methodology needs to be a mix of participatory learning (about the state of the water resource in the community), technical learning, exposure visits and links to the officials responsible for water supply. One element that we have found very useful in trainings regarding natural resources is making an action plan in the last week of the training, so that villagers have a clear plan ahead. Sampark also forms a group or a committee to take the action plan forward, and follows this up for at least a year after such training, which helps to keep the momentum going. Some seed funding for an action project to be taken up after the training, can go a long way in keeping people active on the agenda after training.

I do not know how mixed training, involving both women and men, works in Pakistan. If this is possible, it is the best, with some sessions common and some among women and men separately so that the women have an opportunity to voice women specific concerns as well as shape the common action plan.

Hope this helps. Kind regards.

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**[Arunabha Majumder](#), All India Institute of Hygiene and Public Health (AIH&PH), Kolkata**

TOT for women candidates on drinking water issues may include the following:

- Demand and availability of water
- Water sources
- Water quality; characteristics of ground water, surface water and rain water
- Drinking water quality standards
- Water and health linkages; water-borne and water related diseases; Illness time,
- Time and energy savings of rural women if drinking water is available in the habitations
- Simple water treatment
- Disinfection by chlorination; residual chlorine measurement; Solar Disinfection(SODIS)
- Water quality monitoring; Role of water testing laboratory; Use of water testing field kits
- Water quality surveillance
- Sanitary survey
- Preventive measures; Tubewell disinfection, dugwell disinfection, Chlorination of piped Water Supply
- Simple method of Arsenic and Fluoride removal; Iron removal method
- Development of low cost household filters through social marketing

- Documentation; data analysis
- Recycling of water
- Water conservation
- Minimization of wastage of water
- Rainwater harvesting
- Operation and maintenance

The training must include practical field visits, Laboratory visits, Use of field testing kits, Sanitary surveys in the field, exercise of disinfection of water, etc.

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**Deepa Prabhu, ICICI Bank, Mumbai**

I'd like to share two documents (see links below) that I hope may be of specific or generic interest to the group. Please see links below, freely available on the web under the terms, "Catskill Mountains water".

**City that Drinks the Mountain Sky**

Army of the Sea Theatre

<http://www.armofthesea.org/presskit/documents/CityDrnk.pdf> (Size: 454 KB)

<http://www.tribecapac.org/documents/TribecaPAC-CityThatDrinks.pdf> (Size: 850 MB)

*Accounts the epic story of New York City's water supply, told in the elemental beauty of puppet theatre.*

In my view this is a small representation of very nicely prepared material that can provide much inspiration to trainers, marketing methods, community participation and the essential challenge of conservation, education and research.

This may not have a specific bearing for the training in November but for instance, while it pertains to an urban city there are lessons such as;

1. Use of teaching aids such as puppets, theatre, cartoons, games, etc.
2. Tie up with local agencies that may support your cause and assist in preparing the aids as well continuing the programme on an ongoing basis- for instance this is for school children.(a theatre company, use of local idiom, based on target audiences- school children,citizen groups or as it may be for instance, the concept of shramdaan to clean a lake as is done in Chandigarh)
3. Valuable lessons of history with context to water and supply to a urban center/city and other insights.

In India, use of traditional knowledge and traditional methods may also be very relevant.

The Catskill Mountains water and conservation story provides many valuable lessons and I am grateful to Dr. Nitin Desai of the UN for learning on this topic gathered at a water seminar on the topic of water.

A useful link is:

[http://www.wateryear2003.org/en/ev.php-URL\\_ID=1456&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://www.wateryear2003.org/en/ev.php-URL_ID=1456&URL_DO=DO_TOPIC&URL_SECTION=201.html)

This site has many resources for use such as maps, toolkits, events calendar, programmes to which one can contribute or use and ideally do both.

Hope it helps.

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**Xavier Raj, Social and Environmental Research Centre (SERC), Synovate Ltd., Chennai**

Our experience of conducting training at grassroots level suggest that Visualization in Participatory Programmes (VIPP) is an effective mode of transferring knowledge, skills and raise motivational level. VIPP also helps the participants to adapt the solutions to their socio-cultural settings taking into account resources available. Participants are able to share and reflect on what worked and did not work; identify issues and gaps; come up with workable solutions; learn the requirement of continuously assessing and modifying their responses in their villages / urban localities. VIPP has the flexibility of adapting to the level of preparedness of participants and their capacity to absorb, participate and retain information. Due to active involvement of participants learning, retention, and motivation to apply it in their setting is high.

Team preparing the training modules should build on the learning of various projects that contributed towards empowering women in organizing themselves and forming networks for solving drinking water issues.

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**Raj Ganguly, ACDI VOCA, Jaipur**

I agree with Ms. Deepa Prabhu, about incorporation of local aids such as puppets, theatre, cartoons, games as training methodology, which will certainly increase the efficacy.

I would also like to add the topic of identifying and encouraging the use of traditional knowledge and traditional methods of water management.

For example, a number of investigations establish the scientific basis of traditional water storage systems like usage of copper, brass and earthen vessels. (Evidence of inactivation of Escherichia coli and coliform bacteria in traditional brass and earthenware water storage vessels.)

See <http://www.springerlink.com/content/n7r1nw8127g0wp83>

Some more useful links, which establishes the traditional usage of copper as water purifier

[http://www.copper.org/health/papers/infectious\\_disease/infectious\\_disease.html](http://www.copper.org/health/papers/infectious_disease/infectious_disease.html)

[http://www.copper.org/health/papers/e\\_coli/e\\_coli.html](http://www.copper.org/health/papers/e_coli/e_coli.html)

<http://ag.arizona.edu/OALS/ALN/aln57/reed.html>

Water quality in storage vessels - <http://www.krepublishers.com/02-Journals/JHE/JHE-16-0-000-000-2004-Web/JHE-16-2-075-150-2004-Abst-PDF/JHE-16-2-125-128-2004-Mehta-M/JHE-16-2-125-128-2004-Mehta-M.pdf> (Size: 36 KB)

The training may also include -

1. Importance of saving water - 'saving water = saving village'
2. Rain water harvesting, Water recharging with other components such as Agroforestry, selection of cropping systems, irrigation system etc.
3. Drinking water quality - storage and usage;
4. Community approach in management of local water bodies like well, ponds, river etc.

5. Recycling water - drainage system, re-use of water
  6. Connecting water with Health, Agriculture, Micro-economy of the village and overall prosperity.
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**Maria Fernandes, WaterAid India, Bhopal**

I work with WaterAid India, Bhopal in water & sanitation and for empowering grassroots NGOs & community for management of water & sanitation facilities through various capacity building programs.

I agree with members that it is important to give a priority to women because women have not yet become part of mainstream. I also agree with Mamta & Jahangir about including both women and men to make the programme effective. For effective design of any training, a training need assessment is necessary. Following are a few suggestions based on my experience:

- The training for **Safe drinking water sources & storage/handling of water** needs to be designed in such way that it will help in developing cadres to disseminate this message. Trainees must be trained on tools to bring SHG leaders & children to the centre stage, as it is easier to spread the message through them and it is also easy to monitor the practices adopted. In many of our supported projects, entire village & slums have been transformed in their hygiene behaviour because of initiative of children & women SHGs.
  - For **Conservation of water** focus must be given on low cost technology & tools to motivate households to adopt this technology
  - Mainstreaming gender issues in water: The objective of this training session could be on bringing women into the decision making process and to sensitize men to reduce the work burden of women.
  - Training of trainers for women on creating and managing networks on water for poverty alleviation: This should focus on linkages between water scarcity & poverty, techniques for better operation & maintenance of water sources, effective role of women in mobilizing community for community based Operation & Maintenance of water sources, techniques for involvement of community based women & men groups in management of water
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**Ranjan Das, Department of Community Medicine, Lady Hardinge Medical College and Kalawati Saran Children Hospital MoHFW, GoI, New Delhi**

Sorry for joining late in this discussion as I became a member only a couple of hours back.

It is encouraging to hear that long-standing issues have not been forgotten altogether with the passage of almost 2 decades since the "water Decade".

High tech diseases have taken the drivers seat, these days though "water related diseases" still account for 80% of our nations ill health and costs.

Being a medical doctor and development enthusiast, and having been associated with large projects like The Control of Diarrhoeal Diseases Project by Water & Sanitation ( CDD-WATSAN) (implemented in whole of UP by Govt. of UP (Health, Rural Dev etc.)) with support of UNICEF, I feel the following points MUST ALSO be incorporated into the Water management training for women.

1. Training content:

- Selection of sources of water for drinking and other use purposes
- Simple methods of purification of water at household level, and their alternatives
- Methods to prevent re-contamination at household storage level
- Some basic knowledge of diseases that can ensue if above three are not taken care of
- Level of personal hygiene and general sanitation to prevent water related diseases
- home care of diarrhoeal diseases

Currently we are using the Community Needs Assessment Approach (CNAA), in our Health Programmes countrywide, for deciding on the training / service needs.

2. Training Methodology:

- Participatory Rural Appraisal (PRA) method along with
- Demonstration of Methods of say water purification/ ensuring personal hygiene#
- Case studies of families who have been able to ward off diarrhoeal diseases by behavior change
- All our communication must be for and on lines of Behavior Change Communications (BCC)

I hope this may be of some help to you. Please feel free to contact me any time you feel like.

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**[Anasua Gangopadhyay](#), Meinhardt Singapore Pvt Ltd, India Branch, Ghaziabad**

I work with a private consultancy organization involved in planning and design of water supply and sanitation projects in rural and urban sector. Though my work experience is not directly related to capacity building/training issues in rural water and sanitation sector, but more in design and engineering side, I would like to share my experience in rural water sector where community participation was involved.

For a successful rural water and sanitation project following should be taken in consideration from very first stage of project planning to implementation.

1. The beneficiary rural community should be involved from the stage of project planning and implementation including operation and maintenance of the system
2. The local people including women should be trained for partial maintenance and operation of the system, which helps to generate a feeling of ownership among the villagers.
3. The local people will be encouraged to contribute in terms of cash or kind for implementation of the system.

4. Awareness should be created among the villagers specially women to store and use drinking water safely by introducing improvised low cost filters using domestic earthen pots used in households, and use it without contamination by providing taps with the earthen pots. Villagers should be motivated to use this type of simple, low cost techniques for safe water use.
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**S. Kishore, Consultant, Ahmedabad**

I would just like you to focus more on participation of women groups in Operation & Maintenance of Small technological options, which could be provided under all the topics suggested by you to support them for poverty alleviation.

- a. Cluster Storage, where they do not have to worry about collecting water for their daily household chore. (AKRSPI)
  - b. O& M Charges, Input supply register & Quality Monitoring by women groups to ensure availability of regular Drinking water supply. (WASMO - Bhuj)
  - c. Participatory Irrigation Practices (PIM). (DSC/AKRSPI).
  - d. Women SHG's & Federations Planning, procuring & managing Effective Irrigation Devices, Group Wells, Farm tools library, Drinking water Supply systems, for their increase support to their livelihoods for themselves. (AKRSPI, Netrang & Sayla).
  - e. Focus on Harvesting also (seemed to be missed out).
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**Preeti Saxena, Centre for Environment Education, Lucknow**

I am happy to contribute to this discussion on the Design of the training of trainers on creating water networks. I share below some experiences concerned with water born diseases and purification of Chromium contaminated water in remote areas.

I feel that identification of sources of pathogens and its route of transmission in human being should be included in the training, especially for mothers of infants young children because children are the first sufferers of water borne diseases. Prevention is always better than cure, therefore the training should emphasize the prevention of transmission of pathogens in water bodies.

Heavy metal contamination in ground water is another big problem, especially in villages where the main sources of drinking water are hand pumps and tube wells. Our organization is involved in the promoting sanitation and purification of contaminated water. I suggest that the training program also covers:

1. Demonstration of purification of Cr VI contaminated ground water.
2. Designing of eco friendly dry toilets in rural areas .

The Training content, in my opinion, could be as follows:

1. Selection of safe sources of water for drinking and other use purposes.
2. Water purification system by using traditional values.
3. Identification of the sources of pathogens and its environmental consequences.
4. Prevention of water borne diseases using traditional values and technological interventions.

5. Development of proper communication system between rural women and community health centre.
6. Demonstration of purification of Chromium VI contaminated ground water.
7. Designing eco-friendly dry toilets in rural area.

Methodologically, the Training should be based on needs of local community. Also, Impact assessment of the training should be conducted at regular time intervals for further improvement.

I hope this is helpful to you. Please feel free to contact me for more discussion.

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**Johnson Rhenius Jeayseelan, WaterAid India, Bhopal**

For the Training of trainers for women in creating and managing networks on water for poverty alleviation in rural areas, the focus should be on the following:

1. Water conservation - Water conservation through Integrated Water Resource Management (IWRM) has been less of a focus in water sufficient areas, but more and more areas which were earlier abundant in water are coming under water stress in recent years. In the coming years, water conservation through IWRM will be the main focus, with measures like recharge and harvesting. Hence the training can focus on water conservation. This can include a field visit to successful IWRM models for better understanding.
2. Water handling - The second most important cause of water contamination is unsafe water handling practices, and so another focus could be water handling. Purification of water using simple purification practices could be emphasised. In Bangladesh, I saw a very simple solution to the problem of water contamination. Two pots were used, one of which was placed on a tripod and other on the ground. The pot on the tripod was filled with sand and was covered with a permeable cover or a cloth. When contaminated water was poured, the first level of filtration is done through the permeable cover or cloth, after which the water passes through the sand layer. What one gets in the second pot is better quality water.
3. Emergency water issues - The focus should be on safe treatment practices during episodes of diarrhoea, and prevention of malaria and diseases due to unsafe water handling.

The training methods I suggest are:

1. More games
2. Use of pictures (e.g. for safe water handling, one can have pictures of safe practices (cover pot, use ladle, etc) and unsafe practices and get participants to play a game of mix and match.
3. Use of participatory tools

We do have a module in which participatory exercises are included for handling sessions like safe water handling etc., which I could share with you, if you need the same.

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**Surendra Kumar Yadav, National Institute of Health & Family Welfare, New Delhi**

As you know, women are the backbone of the society and they have a tremendous contribution in safe drinking water, sustainable use of ground water, conservation of water & storage/handling of water. Therefore the women are the dominant stakeholders.

If more women are involved in all issues like the proposed training of trainers (TOT), then the effect shall be much more, because women are the natural teachers of children at home.

Children learn all water and sanitation practices from their mothers / guardians at home. Therefore, the involvement of women in such programmes is must and requirement. If through effective communication, women are educated, then half the problems related to water & sanitation will get resolved automatically and the country shall become a healthy country as all water related health problems may be controlled.

There is a need to explain to rural women how to make a drinking water safer by boiling, filtering and protecting the drinking water source. They should also be given training for reuse of water for other purposes.

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**Bhawna Vajpai, Spatial Decisions, New Delhi**

I am associated with World Bank assisted, integrated rural water supply and environmental sanitation programme in Uttar Pradesh and Uttaranchal. In my opinion, among the objectives of the programme, sensitization and capacity building of women upon issues related to water and sanitation services is important. As women are key stakeholders in the programme, the government closely supports activities relating to women's empowerment. This includes improving skills of women in planning, implementation and operational issues, while also developing infrastructure in water and sanitation services.

I suggest that the training programme focuses on building the capacities of women through a comprehensive and multidisciplinary approach in water resources development and management. These trainings should develop the understanding among women on issues related to judicious water use and management with simple means. Mostly, women are collectors, users and managers of water within the household and in agriculture. I suggest that issues like agricultural practices and water, water quality, water & livelihood, health and water, judicious water use, water conservation tips etc. also be included in the training. Adaptation and modification for a specific area should be undertaken by the trainers. The training should develop the understanding that water should be managed at lowest appropriate level i.e at village or community level.

Regarding training methodology, based on my recent experience, I would suggest that participants should made to discuss small open ended cases (5-10 lines) on linkages between water and other sectors like livelihoods, sanitation, agriculture, etc. This could be a very good tool to invite solutions from participants.

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**N. Lakshmi Narayana, Dakshinya Institutes, Guntur, Andhra Pradesh**

I am very happy to get the inputs of the Group on this important issue. I have a set of comments and suggestions for the training on the subject of better sustainability of water bodies and ensuring water quality to all consumers and other stakeholders. The points which the training should emphasise could be as follows:

1. After AIR WATER could be treated as the basic survival commodity.
2. Every one should feel the cost of water when it is available in plenty, and not in times of scarcity.
3. The Polluter should pay for the pollution caused by him / her.

4. The training should lead not only to increased awareness but also, more significantly, to behaviour and attitude changes.
  5. Programmes can be success when they are Community Based.
  6. Use of PRA Tools.
  7. Simple water harvesting and storing to reduce crises in water quantity and quality.
  8. A manual with clarity and accountability need to be developed.
  9. Demonstrations of existing structure / practices could also help trainers to get practical views and to implement the programme without difficulty.
- 

***Many thanks to all who contributed to this query!***

*If you have further information to share on this topic, please send it to Solution Exchange for the Water Community in India at [se-wes@solutionexchange-un.net.in](mailto:se-wes@solutionexchange-un.net.in) and/or the Gender Community at [se-gen@solutionexchange-un.net.in](mailto:se-gen@solutionexchange-un.net.in) with the subject heading "Re: [se-watr][se-gen] Query: Design of Training for Women on Creating Water Networks - Experiences. Additional Reply."*

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