

A decorative banner featuring a pattern of hands in various colors and orientations. To the right of the pattern, the words 'MODULE 12' are written in a large, bold, sans-serif font. The number '12' is significantly larger than the word 'MODULE'.

WATER RELATED SCHEMES AND PROGRAMS

The topics covered in this module are -

- Water related schemes of government of India
- Water related programs of UNESCO
- Role of women in water conservation

OBJECTIVE (S) OF THE MODULE

The trainer informs the following module objectives to participants:

- Learning the initiatives of Indian Government to promote management and conservation of natural resources.
- Know about the major bodies functioning in Indian that work on the issue of water resource development.
- Learning the different water related programs being implemented by UNESCO.
- Understand the role of women in water conservation.

WATER RELATED SCHEMES OF GOVERNMENT OF INDIA

Water is fundamental to ensuring food security and sustainable livelihood. Due to growing population and rapid urbanization, there is increased demand for water for various purposes, viz., domestic and municipal needs, irrigation, hydropower generation, navigation and industrial uses, etc. There are serious challenges like decreasing per capita availability of water, deterioration in water quality, overexploitation of ground water resources leading to lowering of groundwater table in some areas, time and cost over-runs in completion of irrigation and multipurpose projects and poor maintenance of the existing facilities, natural disasters related to water i.e. flood and droughts, etc. In addition, there is large temporal and spatial variation in availability of water. Preliminary studies in respect

of impact of climate change on water resources indicate that various components of the hydrological cycle would be affected resulting in further intensification of temporal and spatial variations in the water availability. This situation calls for urgent steps for conservation and efficient use of the available water resources with the active involvement of the people.

To meet this purpose, the Government of India through its ministries, departments and commission launches various schemes time to time. These schemes are either central, state specific or joint collaboration between the central and the states.

Below is the list of major ministries, departments, apex bodies, institutions that are implementing the schemes/programs at the central level and portals that disseminate information about these various schemes.

Central Ground Water Board (www.cgwb.gov.in)

Central Water Commission (www.cwc.gov.in)

Department of Science and Technology (www.dst.gov.in)

Groundwater Research & Management (gwrmsubscribe@yahoo.com)

Global Water Partnership (www.gwpforum.org)

Hydrology Forum - Topica (hydrology-forum-subscribe@topica.com)

Hydrology Forum - Yahoo (hydforum-subscribe@yahoo.com)

Indian Meteorological Department (www.imd.gov.in)

Integrated Water Management Institute (www.iwmi.cgiar.org)

Integrated Water Management Programme (www.dolr.nic.in/iwmp_main.htm)

India Water Portal (www.indiawaterportal.org)

Irrigation and Water Resources Finance Corporation Limited (www.iwrfc.org)

METNET : An e-Governance Intra-IMD Portal (metnet.imd.gov.in)

Ministry of Drinking Water & Sanitation (www.mdws.gov.in)

Ministry of Earth Sciences (www.dod.nic.in)

Ministry of Environment and Forests (www.envfor.nic.in)

Ministry of Rural Development (www.rural.nic.in)

Ministry of Water Resources (www.mowr.nic.in)

National Disaster Management Authority (www.ndma.gov.in)

National Disaster Management Institute (www.ndmindia.nic.in)

National River Conservation Directorate

(<http://envfor.nic.in/sites/default/files/NRCD/index.html>)

National Institute of Hydrology (www.nih.ernet.in)

National Water Academy (www.nwa.mah.nic.in)
National Water Development Agency (www.nwda.gov.in)
Nirmal Gram Puraskar (www.nirmalgrampuraskar.nic.in)
The GEF Small Grants Programme (www.sgp.undp.org)
The Hydrology Project (www.hydrology-project.gov.in)
Water History (www.waterhistory.org)
Water Quality Assessment Authority (www.wqaa.gov.in)
Water Resources Informatics Division (www.waterinfo.gov.in)
Water Resources Information System of India (www.india-wris.nrsc.gov.in)
World Water Conservation (www.worldwaterconservation.org)

NATIONAL WATER POLICY OF INDIA

National Water Policy has been formulated by the Ministry of Water Resources of the Government of India to govern the planning and development of water resources and their optimum utilization. The first National Water Policy was adopted in September, 1987. It was reviewed and updated in 2002 and later in 2012.

WATER RELATED PROGRAMS OF UNESCO

UNESCO's work in the water sector is built on three tracks:

- Hydrological science for policy relevant advice.
- Education and capacity building responding to the growing needs of sustainable development.
- Water resources assessment and management to achieve environmental sustainability.

UNESCO's water family operates as a global network that works together to implement the organization's strategic goals.

INTERNATIONAL HYDROLOGICAL PROGRAMME

As a science and education programme at the global level, IHP covers a wide spectrum of programmes and initiatives. All IHP-related activities are endorsed, recommended and coordinated through the IHP Intergovernmental Council.

IHP's two cross-cutting programmes, FRIEND and HELP, interact with all IHP themes through their operational concepts. IHP's associated programmes cover projects and activities that contribute to the development and implementation of

IHP themes, and are often interlinked with joint and interagency programme components.

FRIEND (Flow Regimes from International Experimental and Network Data). An international research programme that helps to set up regional networks for analyzing hydrological data through the exchange of data, knowledge and techniques at the regional level

GRAPHIC (Groundwater Resources Assessment under the Pressures of Humanity and Climate Change). A UNESCO-led project seeking to improve our understanding of how groundwater interacts within the global water cycle, how it supports human activity and ecosystems, and how it responds to the complex dual pressures of human activity and climate change.

G-WADI (Global Network on Water and Development Information in Arid Lands). A global network on water resources management in arid and semi-arid zones whose primary aim is to build an effective global community to promote international and regional cooperation in the arid and semiarid areas.

HELP (Hydrology for the Environment, Life and Policy). A new approach to integrated catchment management by building a framework for water law and policy experts, water resource managers and water scientists to work together on water-related problems.

IFI (International Flood Initiative). An interagency initiative promoting an integrated approach to flood management which takes advantage of the benefits of floods and the use of flood plains, while reducing social, environmental and economic risks. Partners: the World Meteorological Organization (WMO), the United Nations University (UNU), the International Association of Hydrological Sciences (IAHS) and the International Strategy for Disaster Reduction (ISDR).

ISARM (Internationally Shared Aquifer Resources Management). An initiative to set up a network of specialists and experts to compile a world inventory of transboundary aquifers and to develop wise practices and guidance tools concerning shared groundwater resources management.

ISI (International Sediment Initiative). An initiative to assess erosion and sediment transport to marine, lake or reservoir environments aimed at the creation of a holistic approach for the remediation and conservation of surface waters, closely linking science with policy and management needs.

JIIHP (Joint International Isotope Hydrology Programme). A programme facilitating the integration of isotopes in hydrological practices through the development of tools, inclusion of isotope hydrology in university curricula and support to programmes in water resources using isotope techniques.

PCCP (From Potential Conflict to Cooperation Potential). A project facilitating multi-level and interdisciplinary dialogues in order to foster peace, cooperation and development related to the management of shared water resources.

UWMP (Urban Water Management Programme). A programme that generates approaches, tools and guidelines which will allow cities to improve their

knowledge, as well as analysis of the urban water situation to draw up more effective urban water management strategies.

WHYMAP (World Hydrogeological Map). An initiative to collect, collate and visualize hydrogeological information at the global scale to convey groundwater-related information in a way appropriate for global discussion on water issues.

UNESCO-IHE

UNESCO-IHE is the largest international graduate water education facility in the world and is based in Delft, the Netherlands. The Institute confers fully accredited MSc degrees, and PhD degrees in collaboration with partners in the Netherlands.

UNESCO-IHE provides a wide range of services to a variety of target groups in developing countries and countries in transition:

Education, training and scientific research - for water sector professionals, engineers, scientists, consultants and decision-makers working in the water and environment sectors.

Water sector capacity development - for water sector ministries and departments, municipalities, water boards and water utilities, universities, training and research institutes, industries, non-governmental and private sector organisations.

Partnership building and networking - among knowledge centres, public and private sector organisations.

Standard setting for education and training - for water-related institutions, universities and other education and training agencies in the water sector.

Policy forum on water - for UNESCO member states and other stakeholders.

WORLD WATER ASSESSMENT PROGRAMME (WWAP)

Hosted and led by UNESCO, the United Nations World Water Assessment Programme (WWAP) coordinates the work of 28 UN-Water members and partners in the World Water Development Report (WWDR).

WWAP seeks to equip water managers and key decision-makers with the information, data, tools and skills necessary to enable them to effectively participate in the development of policies.

The Programme's objectives are to:

- Monitor, assess and report on the world's freshwater resources and ecosystems, water use and management, and identify critical issues and problems;
- Help countries develop their own assessment capacity;
- Raise awareness on current and imminent/future water related challenges to influence the global water agenda;
- Learn and respond to the needs of decision-makers and water resource managers;

- Promote gender equality;
- Measure progress towards achieving sustainable use of water resources through robust indicators; and
- Support anticipatory decision-making on the global water system including the identification of alternative futures.

WORLD WATER DAY THEMES (1994 - 2014)

World Water Day has been observed on 22 March since 1993 when the United Nations General Assembly declared 22 March as "World Day for Water". Since its inception in 2003, UN-Water has been responsible for selecting the theme, messages and lead UN agency for the World Day for Water. Year-wise themes since its inception are as follow -

1994 - Caring for Our Water Resources is Everyone's Business

1995 - Women & Water

1996 - Water for Thirsty Cities

1997 - The World's Water, Is There Enough?

1998 - Groundwater - The Invisible Resource

1999 - Everyone Lives Downstream

2000 - Water for the 21st Century

2001 - Water & Health

2002 - Water for Development

2003 - Water for the Future

2004 - Water & Disasters

2005 - Water for Life 2005-2015

2006 - Water & Culture

2007 - Coping with Water Scarcity

2008 - Sanitation

2009 - Transboundary Waters

2010 - Water Quality

2011 - Water and Urbanisation

2012 - Water and Food Security

2013 - Water Cooperation

2014 - Water and Energy

ROLE OF WOMEN IN WATER CONSERVATION

'Rahiman Paani Rakhiye, Bin Paani Sab Soon.

Paani Gayo Na Ubre, Mooti Manas Choon'

These lines have been rightly said by Rahim Das which tell us the importance of conserving water, as without water everything is lifeless; nothing will grow, neither pearl, nor man or grain.



Neer Aur Naari

Women are the main water users throughout the world, being responsible for providing adequate water and sanitation for their families. In many cultures, women and men contribute to water management, but they do so in different ways. Both groups have valuable and complementary knowledge and expertise, and thus both should be involved in planning and execution of water programmes. The specific responsibilities women have in water for different purposes give them expertise which is vital in the search for the most cost-effective decisions and management.

THE SCENARIO

In villages, women walk long miles to bring water for the drinking and cleaning needs of their families. The water crisis translates into an increasing burden for women as water providers. And with increasing water scarcity and water pollution, water related diseases increase women as care givers also carry a disproportionate the burden of water borne diseases.

Women bear a disproportionate burden of water scarcity and water pollution. Even though women in the past have been the conserver and guardian of water resources along with land resources, today it is an imperative that women participate in water management, to ensure provisions for safe and adequate water. Policies must encourage women to participate in decision making in matters regarding distribution, conservation and use of water in their region.

This is of prime importance in view of:

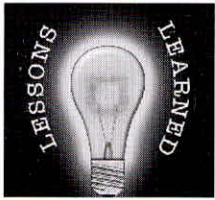
- Women's lack of time and energy affects selection of water sources and can limit availability of safe water at home and in the fields.
- The high time and energy cost of fetching water govern women's perceptions of the importance of hygiene and disease prevention.
- Control of water has class and gender dimensions affecting all aspects of women's lives.
- The stigma attached to water-borne diseases such as urinary schistosomiasis in women affects their own health seeking behaviour and their access to health care.
- Social factors such as these contribute to under-reporting of urinary schistosomiasis in women.
- The disabling effects of diseases such as schistosomiasis and guinea-worm hamper women's performance of their multiple roles.
- This threatens the nutrition and health status of the whole family.
- Time and social pressures may lead to under-reporting of malaria in women and delays seeking treatment.
- Lowered immunity to malaria during pregnancy has important health implications for women and their foetuses.
- Exposure to cadmium may increase women's risk of osteoporosis and other bone diseases.

The water crisis embodies a gender equality dimension that should not be underestimated. In developing countries, fetching water is the job of women and children. Women are the world's water carriers. Walking for hours on foot, they carry home as much as 60 litres of water day after day for their family. Chronic health problems result from carrying this heavy load. After such an expenditure of energy and time, there is no place left for school and education and, by extension, for development and economic independence. Whereas women are fetchers of water, men are policy makers. It is the men who make up the water authorities and decide about pumps, the location of wells and the distribution of water. Water privatization is further exacerbating social discrimination against women.

WHAT SHOULD BE DONE

- Women should be trained as water managers for the better utilization of water.
- Programmes/projects should be designed, keeping in view the women as water users.
- Awards and schemes in recognition of water conservation practices should be initiated for women.

LESSONS LEARNED



- Water is fundamental to ensuring food security and sustainable livelihood.
- Government of India through its ministries, departments and commission launches various schemes time to time.
- UNESCO's water family operates as a global network that works together to implement the organization's strategic goals.
- Women are the main water users throughout the world, being responsible for providing adequate water and sanitation for their families.
- In villages, women walk long miles to bring water for the drinking and cleaning needs of their families.
- Women bear a disproportionate burden of water scarcity and water pollution.
- Women should be trained as water managers for the better utilization of water.
- Any programmes/projects should be designed, keeping in view the women as water users.
- Awards and schemes in recognition of water conservation practices should be initiated.

