

Presentation on Good practices in drinking water, sanitation and human rights

UN High Commission for Human Rights, Geneva
20-21 January 2011

Rajasekhar Dharmaji
Government of India



सत्यमेव जयते

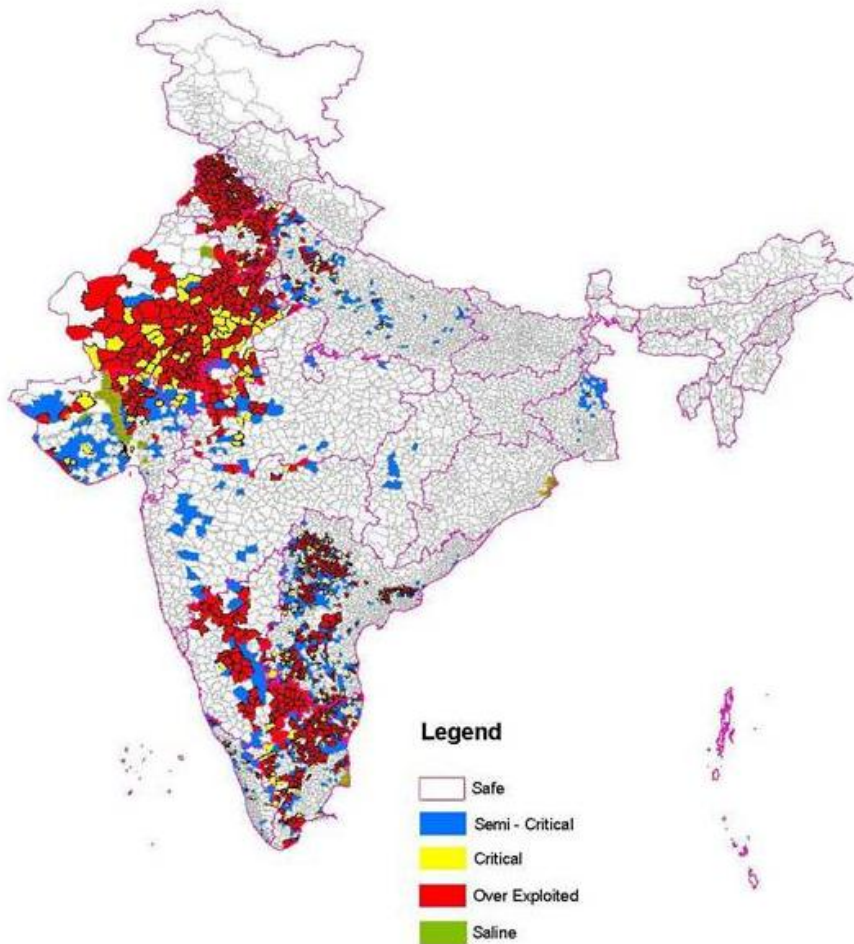
INDIA

- 5,000 year old ancient civilization
- 325 languages spoken – 1,652 dialects
- 18 official languages
- 29 states, 6 union territories
- 3.28 million sq. kilometers - Area
- 7,516 kilometers - Coastline
- 1.3 Billion population.

- Parliamentary form of Government
- World's largest democracy.

REPLENISABLE WATER RESOURCES

- GROUND WATER = 433 BCM
- SURFACE WATER = 690 BCM
- TOTAL = 1,133 BCM
- PER CAPITA WATER AVAILABILITY = 1820 CUM (IN 2001)



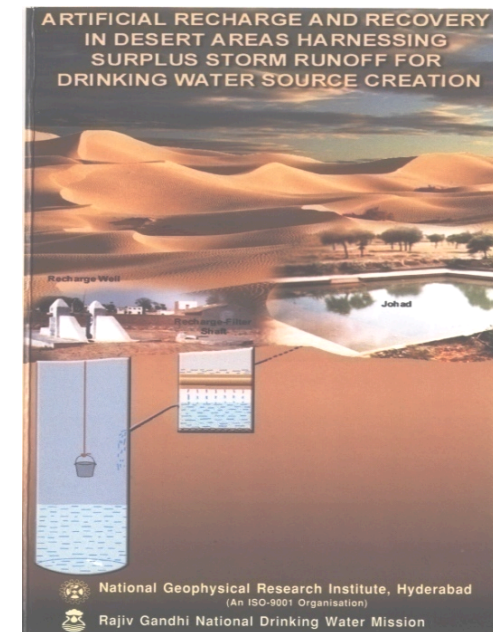
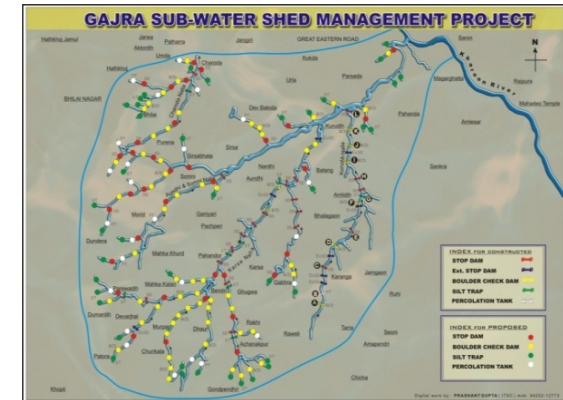
National Rural Drinking Water Programme



National Rural Drinking Water Programme (NRDWP)

- National Goal
 - To provide every rural person with safe water for drinking, cooking and other domestic basic needs on a sustainable basis. This basic requirement should meet certain minimum water quality standards and be readily and conveniently accessible at all times and in all situations

Target to cover all uncovered, quality affected and other habitations and households, schools with safe and adequate drinking water supply



COMPONENTS OF NATIONAL RURAL DRINKING WATER PROGRAMME (NRDWP)

- **COVERAGE** for providing safe and adequate drinking water supply to unserved, partially served and slipped back habitations. – 45%
- Provide potable drinking water to water **QUALITY** affected habitations. – 20%
- **SUSTAINABILITY** to encourage States to achieve drinking water security at the local level – 20%
- **OPERATION & MAINTENANCE (O&M)** for expenditure on running, repair and replacement costs of drinking water supply projects – 10% and
- **SUPPORT** activities – 5%.
- Allocation for **DESERT DEVELOPMENT PROGRAMME (DDP)** areas to tackle the extreme conditions of low rainfall and poor water availability
- Earmarked funds to Mitigate drinking water problems in rural areas in the wake of **NATURAL CALAMITIES**,



Good Practices in Rural Drinking Water

- Policy intervention
- Water supply augmentation
- Water quality improvement
- Improved service delivery – Bulk and Retail
- Community mobilization
- Community empowerment through VWSC
- Women Self Help Groups
- Convergence with related programmes
- Close tie up with Technical and Professional Institutions
- Interactions with NGOs, CBOs

Rural drinking water – Policy interventions

- Centrally sponsored National Rural drinking water programme
- Service level **flexibility** to States
- Focus on **% population coverage** instead of habitation coverage
- **25% funds** earmarked for **SC population**
- **10% funds** earmarked for **ST population**
- **20% funds** (100% central share) earmarked for sustainability of drinking water sources involving **community mobilization**
- **Top priority** for tackling **water quality problems**
- **10% incentive funds** for PRIs for taking up **ownership** of assets and O&M
- **3-tier Institutional mechanism** in implementation (SWSM, DWSM, VWSC). BRCs introduced to bridge gaps between VWSC and DWSM

Rural drinking water – Policy interventions-2

- **Conjunctive use** of ground water, surface water and rainwater
- **Decentralized approach**
- Programme focus on **potability, sustainability, convenience, equity and consumer preference** as guiding principles while planning for a community based water supply system
- **Transparency** through Online IMIS including generation of Utilization Certificates showing statement of expenditure (www.ddws.gov.in)



Farmers monitoring ground water in Andhra Pradesh

Block Resource Centers

(2-4 persons depending upon population)

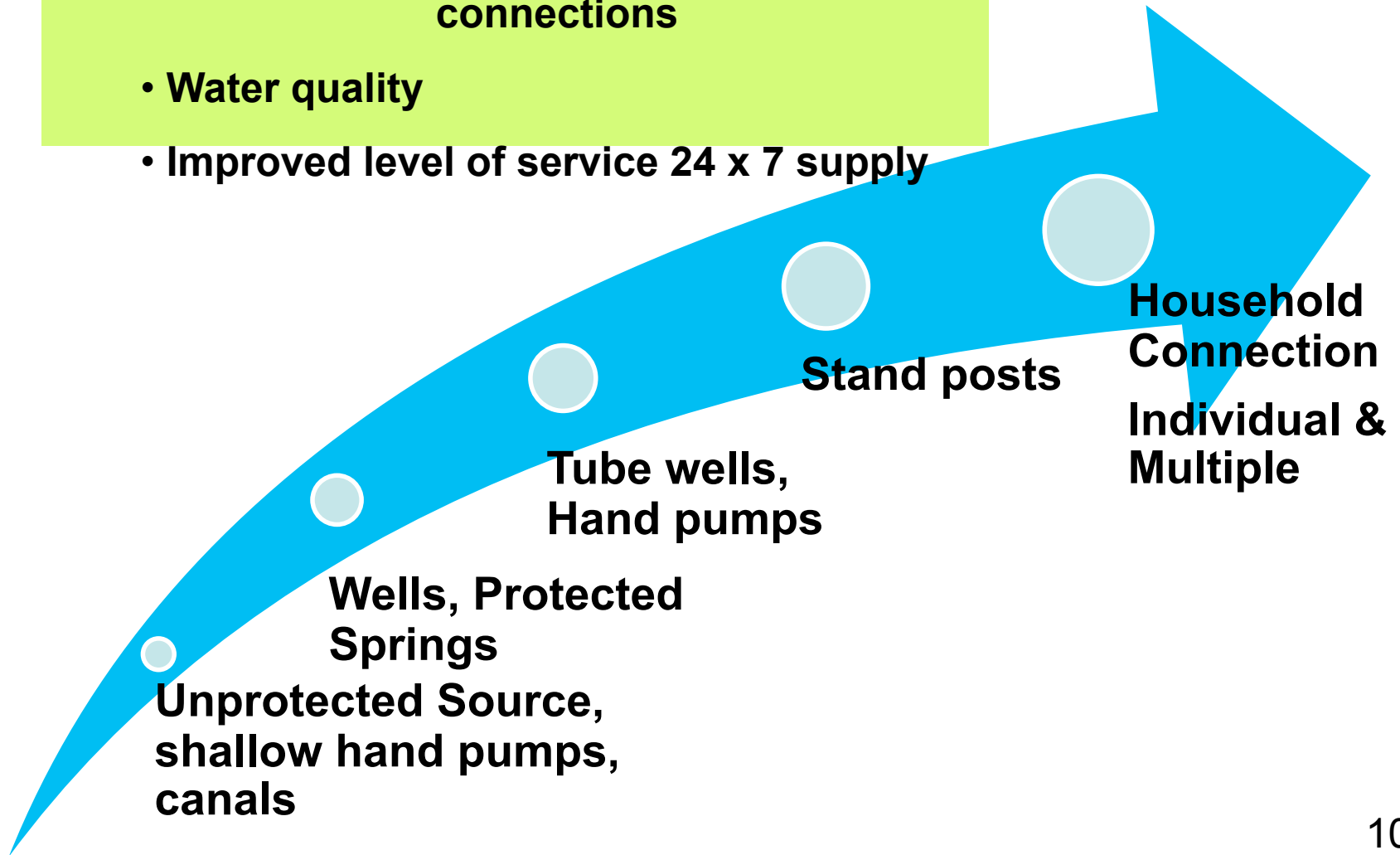
S. No.	BRC functionary	Minimum Educational qualification experience	Age limit	Monthly remuneration	Mobility Allowance
1.	Block Coordinator	Graduate in mass communication/ social sciences/ rural studies with two years experience of working on VWSC/ WQM&S/ Sanitation, etc.	Between 25-35 years. Upper age limit relaxable in case of ex-servicemen to 45 years.	Rs. 5,000 /-	Rs. 125 per full day of village visit*
2.	Cluster Coordinator	Graduate in mass communication/ social sciences/ rural studies with one year experience of working on VWSC/ WQM&S/ Sanitation, etc.	Between 25-30 years. Upper age limit relaxable in case of ex-servicemen to 45 years.	Rs. 4,500 /-	Rs. 100 per full day of village visit*

*Number of days of village visit should be between 10-15 days in a month. They should attend evening meetings in the villages, preferably with night stay. Field visit of less than 8 hours will be counted as half a day and 50% of the mobility allowance will be paid.

Rising expectations moving up the ladder

Emphasis on

- Individual metered household connections
- Water quality
- Improved level of service 24 x 7 supply



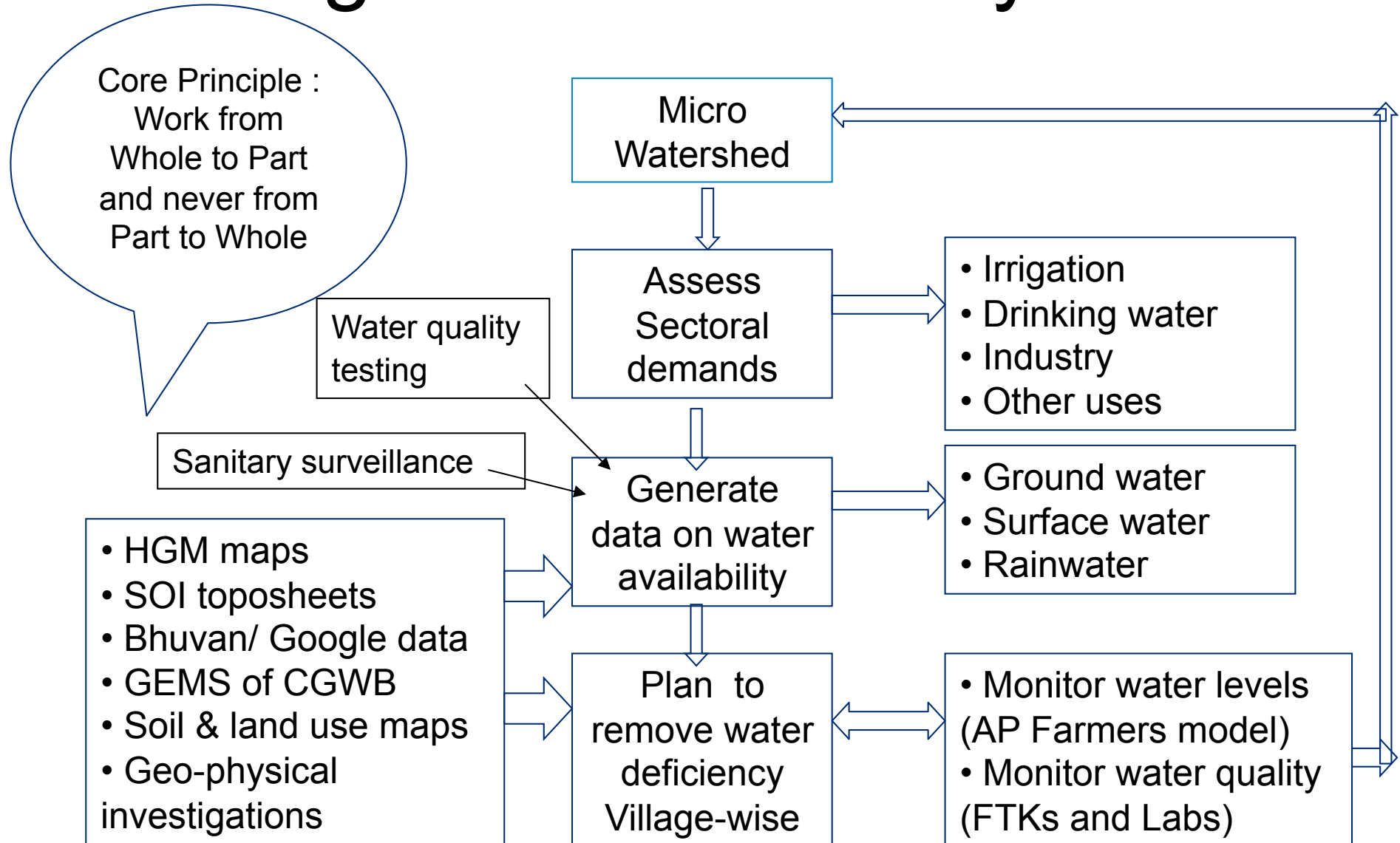
Budget/ Releases under ARWSP/ NRDWP

(in million US \$)

Year	Allocation	Releases
2005-06	902.20	910.67
2006-07	1,155.55	1,011.62
2007-08	1,444.44	1,431.48
2008-09	1,622.22	1,617.51
2009-10	1,777.77	1,775.49
2010-11*	2,000.00	1,577.78*
Total	8,902.22	

* Till 31.12.2010

Village Water Security Plan



TOWARDS DRINKING WATER SECURITY IN INDIA

LESSONS FROM THE FIELD

Gangadevipalli village, Andhra Pradesh

Non-discrimination & Community Participation

- Pre-project status
 - Small village
 - Predominantly small and marginal farmers
 - High fluoride in groundwater
 - Only one open well with safe water but far away
 - Women used to get up at 3 am in order to fetch water. Time taken is about 3 hours
 - Open defecation
- Post project status
 - 100% filtered water to the entire village
 - 100% open defecation free village (Nirmal Gram Puraskar)
 - 100% abolition of child labour with all children attending school.
 - 100% Liquor-free village
 - 100% house tax collection
 - 100% literacy
 - 100% family planning
 - 100% small savings
 - 100% electricity connections



Gangadevipalli village, Andhra Pradesh - 2

- Defluoridation Plant maintained by Village water and sanitation committee since 2004 to till today with successfully.
- Capacity of the plant 1000ltr/hr - donated by “TATA PROJECTS”.
- Supply of the safe water to 240 House holds with Rs.1.00 charge for 20 lit. cans.
- Monthly revenue Rs.7,200/-
- Electricity bill average Rs.2000/- for month (Category of GP Tariff).
- Maintenance charges technician cum operator Rs.3000/- per month.
- Rs.2200/- for savings utilizing for repairs and replacement of membranes as per committee resolutions in every month (for year Rs.26,400.00)
- Success Indicators
 - Formation of VWSC under the GP
 - Motivation by Voluntary association for building OHSR.
 - People’s motivation led to collect Rs 65,000 for construction of water tank
 - Defluoridation plant installed
 - 100% people participation. No disconnect between rich and poor.
 - Collective decision making
 - Self regulation to conserve water – If tap is connected directly to garden, the household’s water connection is cut and restored only after a fine of Rs 100 is paid
 - Motivation of people especially the women led to construction of toilets in every household and put to use.



Metering Household Connections Dakshina Kannada District, Karnataka

Non-discrimination and Accountability

Pre project status : Unequal distribution of drinking water, misuse of water by advantage group, constant complaints about inadequate supply of drinking water, non payment of water tariff due to poor services.

Post project status: Rational distribution of drinking water, Complete redressal of poor services More than ninety percent recovery of water supply tariff is in the district .

Indicators of success: Volumetric based tariff and computerized billing/ **collection based on consumption**, Professional attitude of VWSC's by hiring Engineers & Doctors, Willingness of bearing the cost of metering for distribution of water, In case of the **SCs and STs**, the **GPs have met the expenditures towards the meter and connection from the GP funds** meant for SC/ST under various programs. Empowerment of the **villagers to take charge** of technical and financial responsibilities.



PPP Model for tackling water quality problems in Andhra Pradesh

Community participation and Non-discrimination

- Roof water harvesting methods promoted by both GoAP and some NGOs.
- Household deflouridation & other technologies methods promoted by some NGOs as well as GoAP
- Funds are provided by different agencies like NGOs, Communities, Philanthropist, MLA and MP lads for setting up of water treatment plants.
- **It always insisted that the communities/ GP are shared part of the capital cost in addition to provide space and raw water for treatment**
- **Participation of Global partnership for Output based Assistance (GPOBA):** GPOBA (World Bank) provided an assistance of 1 million USD for Naandi Foundation to set up water treatment plants to improve access to safe water for the poor
- **Distribution and Tariff:** Through Jerry canes of 10-20 liters at fixed point The water tariff is INRs. 2-3 for a 20 liter can if supplied at the treatment plant. If the water supplied at the door steps additional charge of Re 1-2 are charged per can towards the transportation cost depending on the distance.
- Some of the local unemployed youths earn money in transportation of water cans to supply at door steps



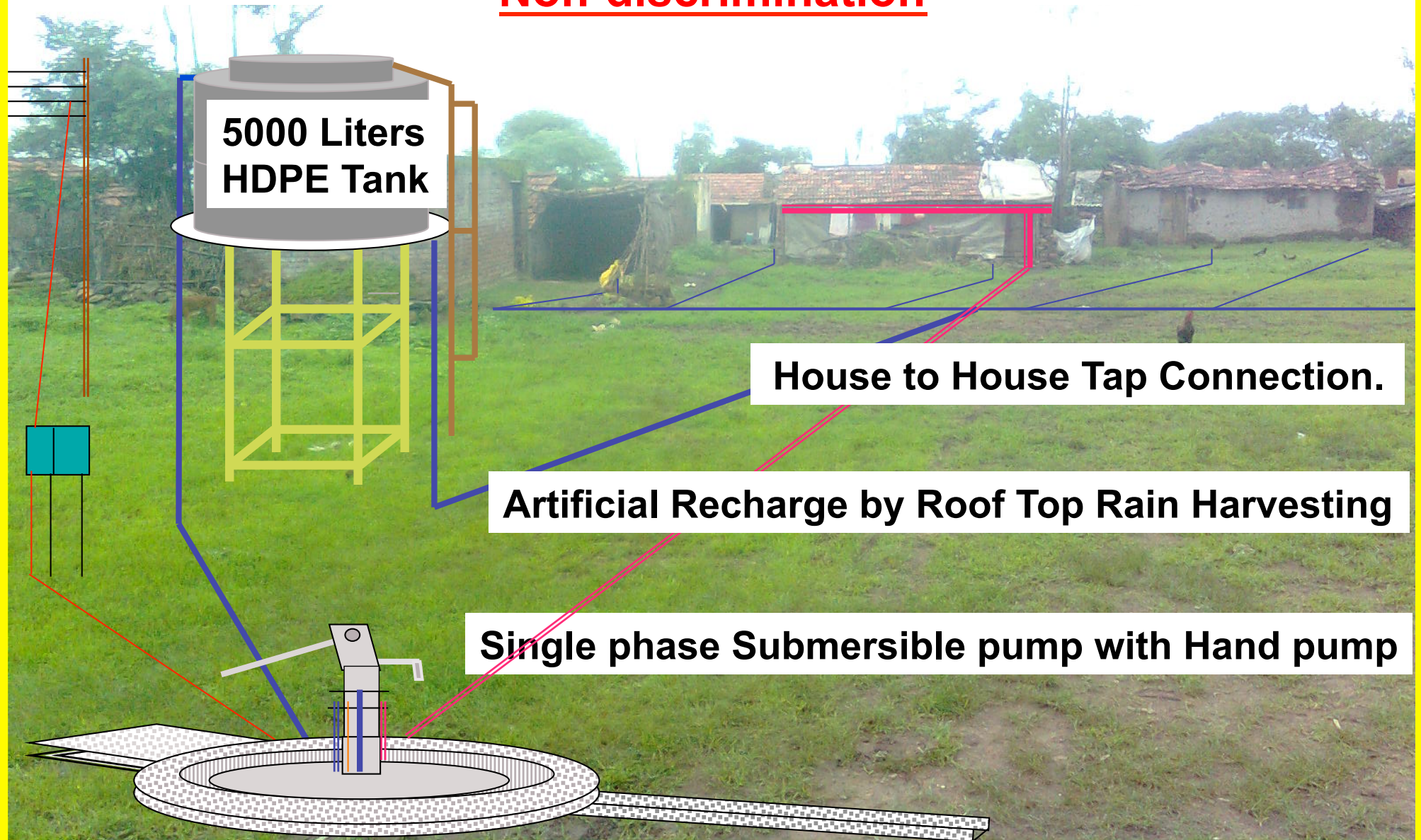
Tripura Adivasi (Tribal) Mahila Samity

Community Participation and Sustainability

- Tripura Adivasi Mahila Samity took the effort for the construction of rain water harvesting Tanks in two villages, Sipaipara and Sri Hari Bari, under Mohanpur block of West Tripura district, inhabited by the Debbarma Community. Both the villages are poor and severely affected by the water scarcity. The houses here had thatched roofs. To improve the quality of life, the Samity provide roofs of galvanized iron sheets for the houses of the poor people. Both the villages have scattered settlement with 2-4 houses in each cluster. The Samity identified 24 beneficiaries from Sipaipara and 16 from Sri Hari Bari village, planning was done in such a way that one house from each cluster was identified for construction of rain water harvesting tank and the benefits of the rain water harvesting tank would be shared by the entire village. After the construction of the tanks the Samity also gave the tips on maintenance to all the beneficiaries.

**Dual Pump Based Scheme for
House to House Tap Connection in Remote and Small Habitations
(A Government of Maharashtra intervention)**

Non-discrimination



Highlights/features of the initiative :

- **This technology is rendered to village panchayats through community participation. 66 such schemes have been completed during 2007-08.**
- **200 such schemes are in progress this year (2009-2010).**
- **These 266 schemes are having a common stand post and village panchayats are willing to complete the distribution system and house to house tap connections in due course of time.**
- **This year sanction is accorded to another 2700 schemes during the cabinet meetings of Konkan and Nashik regions. As on today 800 schemes are completed and remaining are in progress.**

Community Mobilization for Environmental Sustainability

Alwar District, Rajasthan

Pre Project status:

- Water scarcity for all purposes.
- **Post implementation status:**
 - Availability of water for villagers not only for drinking purpose but for agriculture and other purposes as well.
 - Revival of five rivers Bhagani-Teldehe, Arvari, jahajwali, Sarsa and Ruparel.
 - Replicated in other water scarce areas in Rajasthan
 - Checked soil erosion, ensures water supply even for successive drought years.



Indicators of success:

- **Intensive community mobilization generating people's movement**
- Excellent initiative from NGO " Tarun Bharat Sangh" to manage water from community themselves.
- Construction of small water harvesting structures called "Johads"
- Low cost of Construction of water harvesting structures (check dams) where 75 % structures cost less than USD 1,000.

Pilot Oorani at Pattikadu, Tamil Nadu

Before Community participation and Non-discrimination



Pics. right:
Oorani a habitat for
various species



Pic. left:
People drawing water
from the Oorani



Effective Communication Mode for water quality through PPP in Kerala

Community Participation and Mobilization

- Stakeholders :: Government of Kerala, Malayala Manorama and Unicef
- The objective was to capitalize on the awareness already created and **induce a behavioral change**.
- The theme of the message was ‘**Pure Water, Pure Environment**’ giving the concerns on water quality a holistic environmental approach.
- A 20-day long road show ran across both urban and rural centers across all 14 districts in Kerala. Each day, three schools and one public place were selected as the venues for the road show to visit.
- **Activities:** An **Eicher van** was fabricated to look like **typical house** in Kerala. The activities included folk song, magic show, spot games for the students, water quality testing lab and resource person interaction, distribution of water quality testing kits to schools,



Public Complaint Redressal System, Punjab

Accountability (Call 1800-180-2468)

- Created Shikayat Nivaran Kenra (SVK) meaning Complaint Redressal System and is outsourced at an annual cost of Rs. 9 lakhs to an IT institute.
- A service standard was prepared to redress various types of complaints
- Registered complaints are forwarded to concerned field officers through SMS and E-mail for immediate redressal. The information regarding the status of various complaints registered at SNK is monitored by departmental officials.
- A distinctive number is issued to every registered complaint and the same is also informed to the complainant during registration;
- In case complaint is not rectified within stipulated period, the same is forwarded to next level senior officer for his intervention after every 48 hours. i.e. Superintending & Chief Engineer as per hierarchy
- Complainant is informed by the operator deployed at complaint centre regarding attendance of their complaint & same is not closed till the consumer is satisfied.
- The consumers can also check the status of their complaints through unique complaint number provided to them.



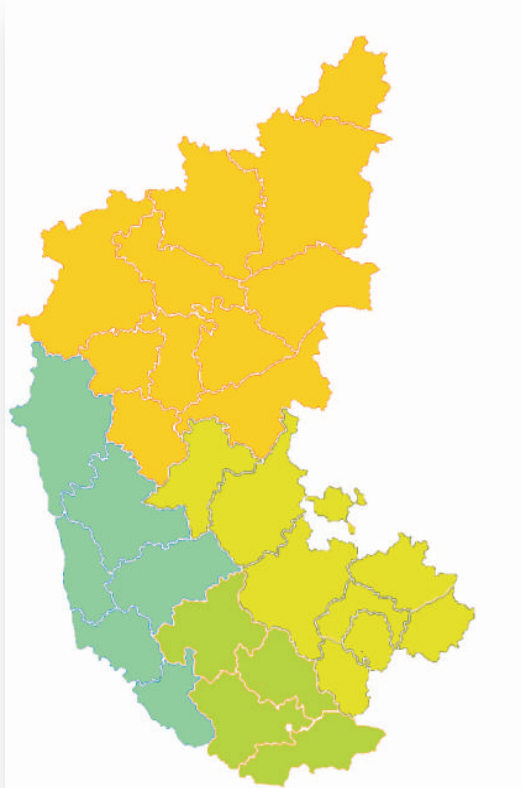
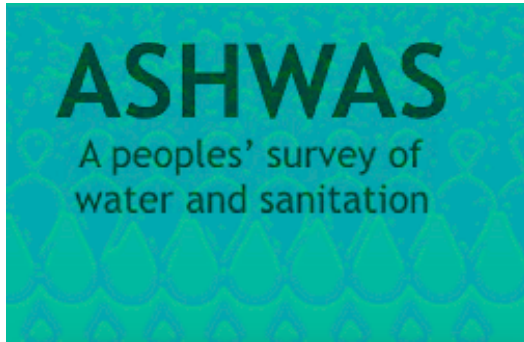
AN INDEPENDENT SOCIETY TO MANAGE WATER SUPPLY SERVICE CHINCHALI VILLAGE, DISTRICT BELGAUM, KARNATAKA STATE ACCOUNTABILITY

- **Pre project status** : Water scarcity and Operation & Maintenance problem in existing water supply scheme.
- **Challenges:**
Gram Panchayat (GP) was unable to recover the water tariff to control the illegal connections.
The VWSC didn't have any legal powers to issue notices to defaulter and to disconnect the connection.
- **Post implementation Status:** Water Supply system has been well maintained for more than last 9 years.
- **Indicators of success:**
 - Clear role & responsibilities of GP and VWSC
 - O&M responsibility was transferred to VWSC.
 - VWSC was registered as an independent society under Karnataka society act and given certain legal powers.



ASHWAS – Citizens' survey

Location: Karnataka (Rural); Partners- Arghyam & 15 partner NGOs



Accountability

- Citizens' domestic WATSAN survey as a tool to ensure quality in public expenditure- transparency & accountability issues, independent data source, tool for citizen audits
- Dissemination – customized report back to each GP
- Questionnaires at household, Gram Panchayat and village levels
- 28 districts, 172 gram panchayats and 17,200 households (average 100 households)
- 1 year exercise; rigorous training to surveyors
- Field survey team - 300 people for 40 days. 1-2 women in each team
- Water quality tests of sources, photographs, maps
- Impacts: Stimulated discussion about condition of WATSAN in Karnataka at many levels ; other states interested in doing such a survey- a process document is underway

24/7 WATER SUPPLY WITH CLUSTER STORAGE

Khintala Village, Gujarat - Impact on Livelihood

- **Pre project status:** Severe water supply problems in all 378 households due to unavailability of any local ground water aquifer.
- **Challenges:**
 - To provide drinking water to all the villagers where groundwater was not available within reach.
 - To convince the people to take up the scheme and to get the people to contribute 10 % towards the capital cost.
- **Post implementation Status:**
 - Water became available to all at all the time.
 - **Both Women and men were able to save about 3.8 hours and some of the saved time was used for enhancing their income.**
 - **Drop rate of school-children were also reduced .**
- **Indicators of success:**
 - Water supply scheme was designed on “Cluster Storage” basis and the area was divided into many clusters.
 - Standardized distribution and storage system for each cluster.
 - Villagers formed Pani Samiti (equivalent to Village Water & Sanitation Committee) to manage the water supply scheme.
 - Excellent support from Water and Sanitation Management Organization (WASMO), Government of Gujarat

People's movement in Kanyakumari , TN

Community participation & Sustainability

- Due to eager flow of water in the channel, the villagers face lot of difficulty, especially during summer.
- Then the villagers came out with the idea of constructing a series of check-dams which will not only ensure availability of water throughout the year, but also recharge the wells along side the channel.
- The proposal was readily accepted and the Collector gave sanction under small savings incentive scheme for the construction two check-dams, to begin with, which have been completed and put to use of the community.
- Seeing the utility of the check-dams, the other villagers along the channel are now pressing for similar Water Harvesting Structures and the district administration has decided to sanction two more such check-dams.



24/7 WATER SUPPLY – Jepar village, Gujarat

Impact and Sustainability

Pre project status : Before Village adopted 24x7 water supply system in 2009, the water availability was limited to about 2 hours/day and the average consumption of water was around 400 litres per day per household.

Post project status: Consumption of water per household got reduced from 400 litres/day to 250 litres/day. Consumption of electricity also reduced from 13.15 units to 8.76 units.

Indicators of success:

- Embraced decentralized community managed water supply system in 2006.
- People abandoned the practice of storing water unnecessarily.
- Dual source i. e. (a well and Narmada pipe water supply system) to supplement each other.
- Tap connection to all 160 household.

Innovations at Malkapur, Maharashtra

Environmental Sustainability

- The water supply system in Malkapur town is the first initiative in India where whole of the town is operating on 24 x 7 basis.
- Improvement in delivery time and services.
- Safe Quality of Water.
- Decrease in water borne illnesses in children. zero level.
- Reduction in wastage of water. 30%.
- Shifting control of the distribution system from Valve man to the Consumer.
- The meter reading and billing are simplified. AMR type water meters installed can be read remotely by driving through the streets using hand held device & radio frequency.
- Saving in Electricity: The energy saved is equivalent to reduction in 450 tons of carbon dioxide in the atmosphere.
- Reduction in operation cost. Raw water pumps of water treatment plant operates using GSM technology.
- Reduction in UFW - 8-12%

Building technical capacities at the grassroots for sustainability

Location-Kachchh district, Gujarat; Partners- Arghyam & Arid Communities and Technologies (ACT)

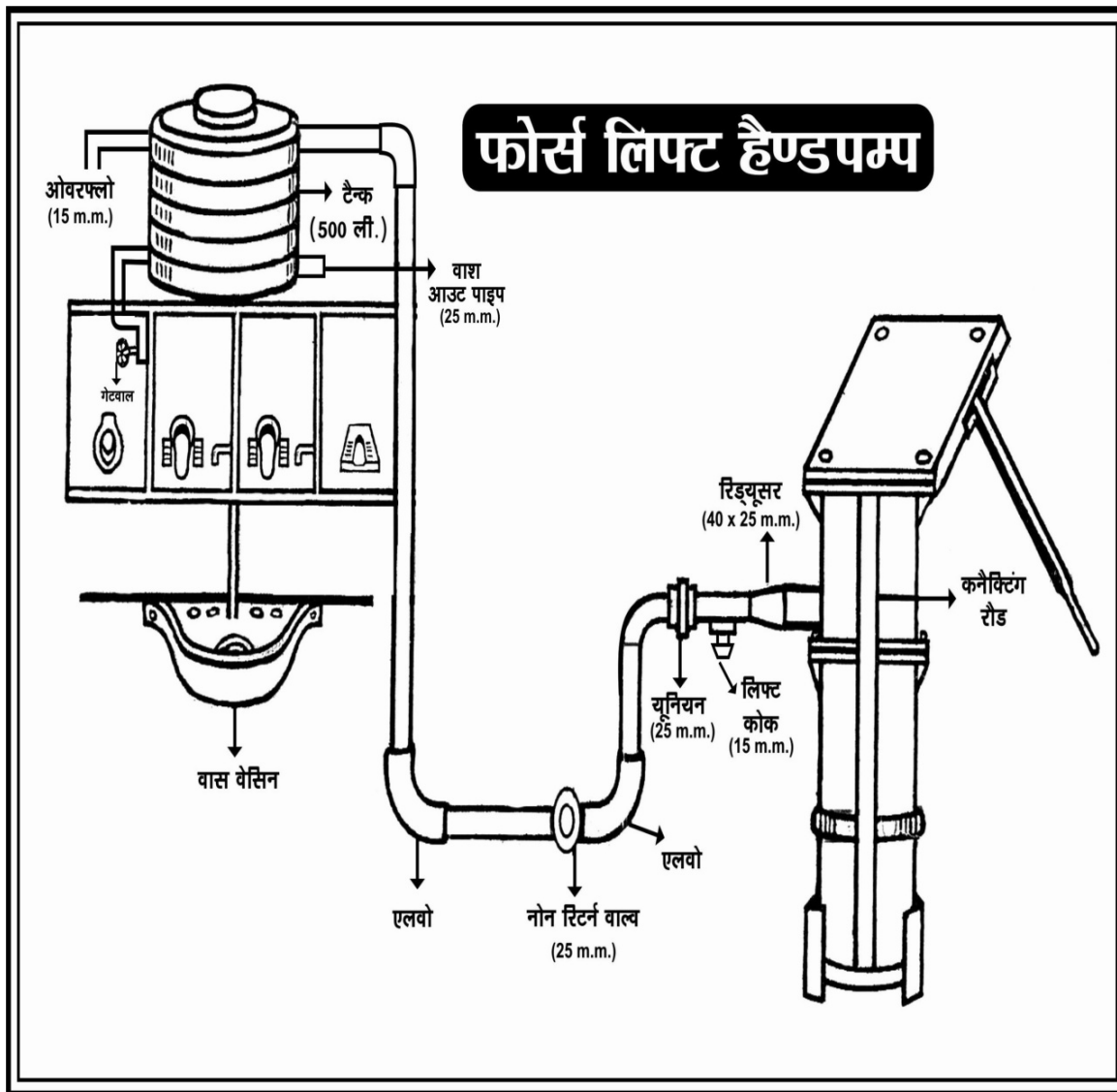
- About 85 % rural water supply-GW dependent
- Lack of capacity at the grassroots'-geology, source sustainability & security
- **Parab** (barefoot engineers)— technical support for *Pani Samitis*
- Local youth trained (using local language & terminology) on basic geo- hydrology & water resource engineering
- Geo-hydrology: Geological mapping & formations, well inventory, watershed mapping, water balancing
- Engineering: design calculation, survey, estimates, cost benefit
- Training duration: Over 4 months: 10 -12 days per month; prepare their village plans as homework



Achievements so far:
Training Cost: INR 22,500 per person (incl lodging and boarding)
64 local youth trained; water security plans for more than 120 villages
WASMO sought services of 20 Parabes

UP : Mirzapur Model, Force Lift Hand Pump in schools

Creating positive impact on health of school children



Force lift hand pump



Hand washing facility -MDM

Success Stories from States

Total Sanitation Campaign
(Rural Sanitation)

Total Sanitation Campaign

- A centrally sponsored programme which is “community led”, “demand driven” and people centred”
- Objectives include
 - Open defecation free environment through use of individual house hold toilets
 - School sanitation and hygiene education
 - Anganwadi sanitation with baby friendly toilets
 - Community sanitary complex for landless people and floating population
 - Rural sanitary marts and production centres as outlets for access to sanitation appartunances. A revolving fund to create livelihood to WSHG/CBO
 - Solid and Liquid waste management for environmental protection as well as to convert “waste” into “wealth”
 - Ecosan toilets for closing the pollution loop – Basically a urine diversion compost toilet
 - Nirmal Gram Puraskar award as incentive for good behaviour of achieving a clean village without open defecation practices

Nirmal Gram Puraskar (Incentive award)

- 100% open defecation free
- Proper disposal of child faeces
- 100% school and anganwadi sanitation
- Proper solid and liquid waste management
- Rs 0.5-5 lakh for GP, Rs 10-20 lakh for Block and Rs 30-50 lakh for district, depending upon population
- Award annually given by His/Her “Excellency” the President of India
- More than 22,000 awards given away since 2005.

West Bengal – Non Discrimination and Helping the Poor

Rural Sanitary
Marts set up by
SHGs for alternate
delivery mechanism



Non-discrimination for Sanitation & Water

Location-Orissa; Partners- Arghyam & Gram Vikas



- About 8% of population in Orissa has access to proper sanitation- Indian national average 63%
- Flagship 'MANTRA' by Gram Vikas-movement & action network for the transformation of rural areas- core values **are inclusion, social and gender equity, sustainability and cost sharing**
- Focus on demand led sanitation- interventions contingent upon agreement & **participation of all the families in each working village**
- Emphasis on quality on toilet construction, not on the cost minimization
- Sustainable local livelihoods for village masons
- Household water supply connections- linking water supply to sanitation
- Hygiene education-linking environmental sanitation & hygiene, focus on women & children
- Under the ambit of MANTRA, so far 48107 families in 787 villages have been totally covered by WATSAN infrastructure



Arghyam & Gram Vikas partnership-
Support for sanitation infrastructure- 15 villages, focus on poor and marginalised communities
Beneficiary households -1065 families
Target population-5325
Project duration- 3 years, Total cost- INR 3,43,34,066
About 40% of the cost to be mobilized through community and Govt

Maharashtra

Non-discrimination and Community participation

Involvement of religious leaders, saints and women

Sant Gadge Baba awards



Mobile Awareness

Women Addressing a Rally

Karnataka : School Sanitation, Mysore Model

Impact of Sanitation from School Children

- ❖ Local expertise in design and construction achieved.
- ❖ Structures are cost effective conforming to standards.
- ❖ Not a contractor driven approach but a process driven approach.



- ❖ Project is led by an organization for propagating cost effective technologies in rural areas-Nirmiti-Kendra

Haryana : Innovative IEC Model

Community Participation

- Awareness creation is KEY .
- Capacity Building & Training of stakeholders is TURNING POINT.
- District level Program Manager : A CHAMPION.
- Missionary zeal : MISSION MODE.
- Dissemination of Message: EXPERIENCE SHARING.



- Dedicated Team of MOTIVATORS and VOLUNTEERS.
- Collective COMMUNITY Action: A Peoples' Movement
- CONVERGENCE : Officials / Non- Officials / Public
- EXPOSURE VISITS.

Community led sanitation

Location-Tiruchirapalli, Tamil Nadu; Partners- Arghyam, Gramalaya,
WaterAid India & Water.org

- Community led total sanitation approach-demand driven
- Credit linkages for toilet construction from banks, MFIs & SHGs
- Training, exposure visits, PRI meetings, door-to-door campaigns
- Leveraged “ripple effects” in nearby villages
- Trained masons built 18,200 household latrines with a total loan amount of Rs.5.40 crores
- Helped 56 GPs to achieve “ODF” status under TSC



Argham & Gramalaya partnership:
158 villages, 63,750 people in Tiruchirapalli
Multiple funding sources
Bank linkages (68%), SHG Savings (15%),
Govt. Subsidy (7.3%), individual
contribution (9.2%)

Average cost per toilet = INR 4,119

Chhattisgarh - **Accountability**



Having a toilet at home included in the eligibility criteria for contesting local body elections

Tamilnadu : Solid & Liquid Waste Management

- Setting up systems of waste management in rural areas
- Collection of household garbage



Environmental Sustainability and Revenue generation

UP : Solid & Liquid Waste Management

Environmental Sustainability

- Capacity Building of DPRO/ DPCs on SLWM
- Action plan template developed for GPs
- Training of Masons
- Different technological options
 - Vermi Compost
 - Covered Drainage
 - Convergence of funds with 12th Finance Commission/ MNREGA/ BRGF/TSC/Panchayat funds
- Engagement of *Safai Karmacharis* for 108848 villages



Ecosan Toilet (example from Mussiri)

Environmental Sustainability, positive impact on health and revenue generation



Don't flush the toilet !
No water, no smell !!
Save Water, Save Health !!!

**For the first time in the World
Use Toilet, Get Paid !!**

From Pongal (Harvest Festival) 15th Jan
2008

- Those who use the toilets will be paid *Ten paise per visit* to ECCT on the basis of monthly card issued to user.
- The payment will be made to all cardholders who will be using the ECCT



Sweet rice cooked in the Community toilet complex on harvest festival

Beautiful garden maintained out of Ecosan compost



Lessons learnt
From Urban Water Supply

Jawaharlal Nehru Urban Renewal Mission-the largest urban project in India

The JNNURM has two facets.

- Grants for **infrastructure creation**.

- These grants are tied to a set of **reforms** to be undertaken at the state level and also the ULB level.

The reforms focus on : bringing more **professional approach to managing services, consumer accountability, pro-poor approaches**.

Over the last 2-3 years, several states have adopted : **information disclosure laws and community participation laws, double accounting systems to bring more transparency and accountability**.

Non-discrimination and helping the poor

This has led to several new innovations coming up in Urban India. Some of them are:

-**Drinking water supplied 24x7** in pilot wards in several cities like: Hubli/ Dharwad, Gulbarga (in karnataka), Nagpur (in Maharashtra) . Several other cities are in different phases of moving towards 24x7. Its significant to note that these pilots also **cover localities with poor segments and poor are benefiting from continuous water supply at their doorstep.**

-**Cross-subsides for house connection for poor:** In the past the poor seldom had house connections. Now cities are moving towards providing drinking water at door steps of the poor. Ex; Vijayawada, Navi Mumbai etc.

Community-centric urban water governance mechanisms



Location-Cuttack, Orissa; Partners- Arghyam, HDI & NFI

- Pilot experiments on **developing institutional mechanisms** for water governance- urban & peri-urban areas
- **Empowerment of community to manage local WATSAN**
- Sustainable water supply systems- RWH based ground water/aquifer recharge
- Ecosystem protection- **prevention of GW pollution**
- Local & decentralised solutions- **blend of social & technical approach**

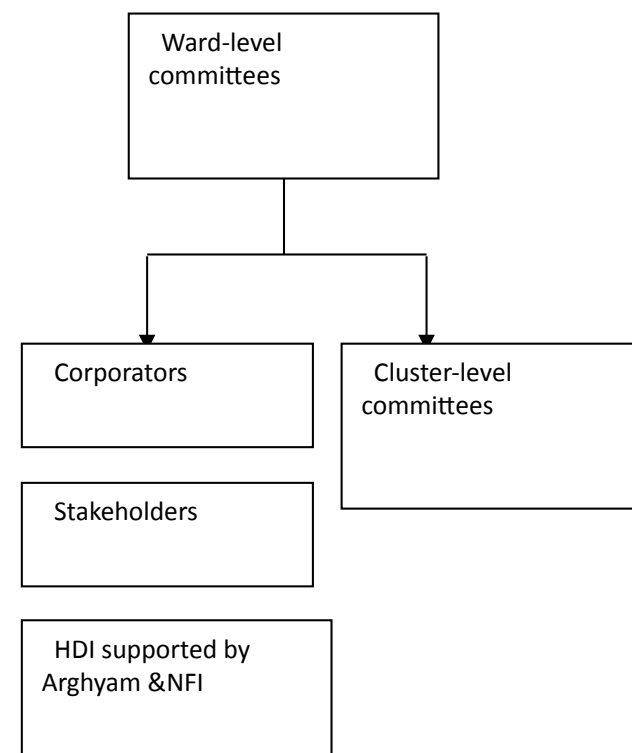
Planned interventions:

2 pilot wards, ward 34 (urban) & ward 52 (peri-urban), population served- 35,000

1 community-based RWH structure in ward-34

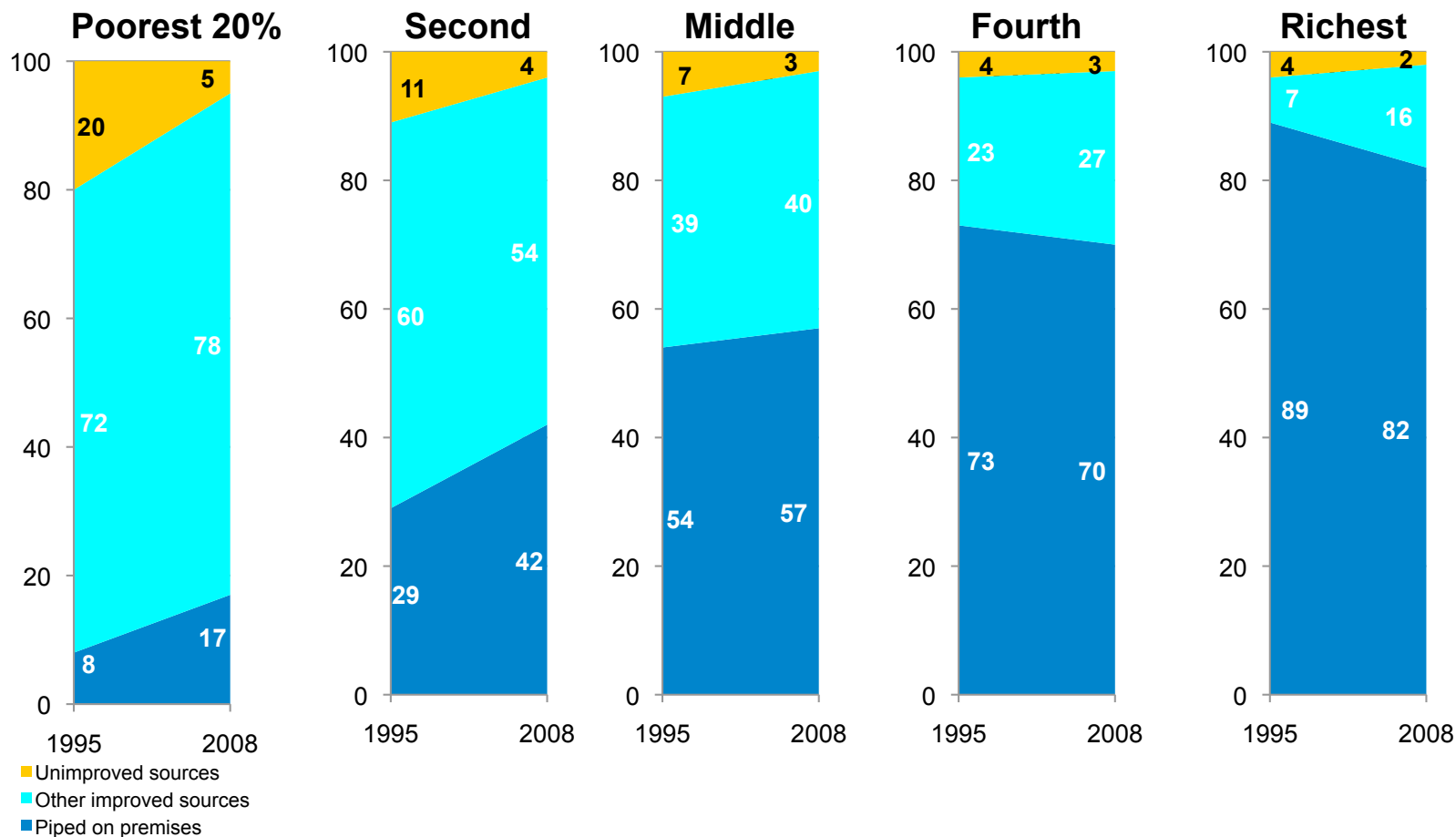
1 wastewater pumping system

Institutional set-up



India – Urban trends in drinking water by wealth quintiles

Accessibility to all sections of the people



Source: NFHS (DHS) 1993, 1999, 2006

Prepared by UNICEF Statistics and Monitoring Section, May 2010

Urban Sanitation

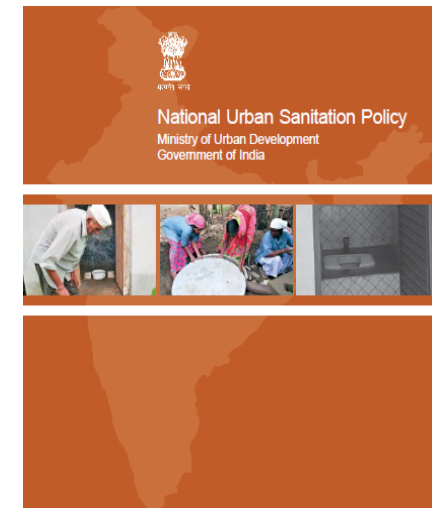
Non-discrimination

Vision: “All Indian cities and towns become totally sanitized, healthy and livable, ensure and sustain public health and environmental outcomes for all their citizens.”



Goals:

- The policy encourages cities to develop **‘Citywide Sanitation Plans’** (CSPs) to tackle the needs of all segments in a most
- Targeting behavior change;
- Achieving open defecation free cities;
- Total Sanitation: Safe disposal of 100% human and liquid waste;
- Develop State sanitation strategies



Standardization for Sustainability

At the national level the MoUD has introduced **Service Level benchmarking** to enable utilities to understand their performance levels and compare with other utilities. A key indicator here is the water quality, services to the poor and efficiency of operations.

MoUD is actively encouraging State governments to institutionalize the benchmarking system and use the information for **service improvement planning** (as against infrastructure planning) and also tie in state grants against performance on key indicators.

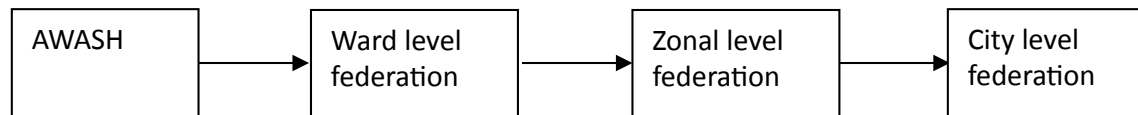
Service Level Benchmarking Indicators:

Water	Sanitation
Coverage of water supply connections	Coverage of toilets (indicates extent of open defecation also)
Per capita supply of water	Coverage of waste water networks
Extent of metering of connections	Collection efficiency of waste water
Efficiency in redressal of customer complaints	Extent of re-use and recycling of waste water
Quality of water supplied	Efficiency in redressal of customer complaints
Cost recovery in water supply	Quality of wastewater treatment
Extent of non-revenue water	Cost recovery in wastewater management

Community participation

From “community toilets” to “community managed toilets”

Location-Tiruchirapalli, Tamil Nadu; Partners-Arghyam & Gramalaya



- Formation of SHGs & AWASH (Association for Water and Sanitation, Hygiene)- members included both men & women, participation of the CBOs, elected representatives and city corporation
- Formation and trg. of AWASH federations, city level monthly meetings
- Capacity building - exposure visit, training and frequent meetings
- Toilet constructed by city corporation, managed by women’s groups
- AWASH savings a/c - interest for O & M expenses
- AWASH became a monitoring & advocacy body, **mediator for conflict resolution**
- Sustainable and replicable model for creating and managing public infrastructure

Achievements so far:
Formation of 128 AWASH federations
328 individual toilets, 23 community toilets, 237 household water connections
Cost per individual toilet=INR 10,000

Using Soil bio-technology to treat sewage

Location-Bangalore, Karnataka; Partners- Arghyam, ACCEPT Society & Vision EarthCare



Environmental Sustainability

- Indigenous wastewater technology developed at IIT Mumbai – uses soil formation chemistry and bacterial action to clean wastewater. Finished plant is highly aesthetic , looks like a garden
- Reduces COD, BOD, N, P substantially - meets standards for different types of reuse
- Several installations across the country from 10KLD – 3MLD already
- Treated wastewater fit for agricultural & inferior domestic use
- Advantages - minimal power & maintenance, less mechanical equipment. Good solution for conditions of interrupted power supply, lack of trained manpower, water scarcity.
- Suitable for- small towns, housing & office complexes, institutes, hotels



SBT plant - at a glance
3 stage 15 KLD gravity-flow bio reactor, area 8.1m x 9.05 m, Cost- Rs 15,00,000/-

Reduction efficiency- Total Suspended Solids (85%-97%), Chemical Oxygen Demand (92%-97%), Biological Oxygen Demand (90%-97%)

Sanitation Rating of cities - Accountability

The “Nirmal Shahar Puraskar” Reward Scheme

Biennial rating & reward for achieving sanitation outcomes



TOWARDS CITY WIDE SANITATION

Why a rating of cities?

- Mobilize cities on a competitive basis to rapidly promote and achieve milestones
- Recognize excellent performance
- Monitor and measure progress of achieving national policy goals
- Advocacy tool for awareness
- Prioritize total sanitation



Unique Color coding of Cities

City Color Codes: Categories	
Category	Description
Red: Less than 33 points	Needs immediate remedial action
Black: 34 – 66 points	Needs considerable improvement
Blue: 67 - 90 points	Recovering
Green: 91 - 100 points	Healthy and clean city

Changed perspective: Outcomes of Rating and Policy

- Best performers to be awarded the **“Clean city award”** by the **President** of India
- Excellent **response from press and public** on rating of cities.
- Union **Minister writes detailed report to each provincial Minister** urging to take action
- States initiating state level rating and incentive system
- **Central Government allocates \$20 million to draft city sanitation strategy** shifting focus from infrastructure
- **City Sanitation strategy process intensified**: 120 cities developing CSP with support from six donor agencies
- **Awareness campaign launched with Bollywood actor, Aamir Khan** as Ambassador



It's all.....
ATTITUDE

That adds upto 100 !

Thank You

