

JAL BHAGIRATHI FOUNDATION'S SCHOLAR PROGRAM

on

Best Practices of Sustainable Development

23rd November to 19th December, 2009



Handbook

Contents

Welcome	3
General Instructions	4
Campus Map	5
Schedule	6
Units	10
Unit 1: Integrated Water Resource Management	10
Unit 2: Water Quality and Safe Drinking Water	10
Unit 3: Pricing of Water	10
Unit 4: Gender and Water	11
Unit 5: Sustainable and inclusive Development	11
Unit 6: Social Capital and Enabling Environment	11
Unit 7: Traditional Wisdom	12
Unit 8: Panchayati Raj (Decentralized Governance)	12
Unit 9: Adaptation to Climate Change	12
Unit 10: Participatory Approaches	12
Faculty	13
Mr. Ajit Singh	13
Dr Arivudai Nambi	13
Dr. Anjal Prakash	13
Dr. Astad Pastakia	14
Mr. Chetan Pandit	14
Dr. Jayanta Bandyopadhyay	14
Mr. Mathews Mullackal	15
Dr. Mohan Kumar	15
Ms. Kanupriya Harish	15
Shri. Rajendra Singh	15
Mr. Ravindra Sewak	16
Ms. Seema Kulkarni	16
Mr. Shubhang Pandya	16
Prof. Varun Arya	16
Participants Profile	17
Participants List	18

1. Welcome

Welcome to Jal Bhagirathi Foundation's Scholar Program on Best Practices of Sustainable Development, a month long structured program, for students and practitioners of development from around the world to extend knowledge and insights from the unique and traditional environment of the Thar Desert in India. With class room as well as fields sessions, the program aims to promote multi-disciplinary and location specific approaches to the development process that takes into account traditional wisdom and cultures, allowing participants to link theory with practice.

The Foundation is supporting and mobilizing water distressed rural communities in 2500 sq. kms. of the Thar Desert (which is the most densely populated arid zone of the world) in Western India, to promote their rich tradition of water management by constructing and rejuvenating water-harvesting structures. These water structures are a prime example of the ingenuity of inexpensive simple traditional technology that is quite remarkable in terms of addressing drinking water needs of the drought stricken human and livestock population.

Jal Bhagirathi Foundation has established a "Water Resource Centre", as an institution that is a conclave to exchange ideas and experiences by civil society groups as well as a knowledge center. Refurbishing the historic Bijolai Palace in Jodhpur and recreating the traditional ambience of this heritage property, the Centre has now become a world class facility for conferences, trainings and workshops with accommodation. It is the organizational entity concerned with capacity development, knowledge generation and information dissemination activities. Water Resource Centre, is also facilitating knowledge networking and policy advocacy. It has partnerships with national and international resource centers, technical agencies, and knowledge networks; it thus serves as a channel for the flow of knowledge and experience. It is envisioned as a centre for knowledge, best practices, useful data and information related to water quality and availability.

Following a multi disciplinary approach, this Scholar Program is planned to achieve a number of objectives. Firstly, it is envisaged to develop professionals who are conversant with environmental

and cultural dimensions of development. Secondly, it would encourage knowledge partnerships between scholars and practitioners in India and abroad. Thirdly, it is expected to develop practitioners and researchers who understand the importance of linking theory and practice. Fourthly it could result in fostering researches based on the insights from the experience of Jal Bhagirathi Foundation in the Marwar region. Fifthly it would promote a multi disciplinary approach to the development process, built on traditional wisdom, to achieve sustainable development. Finally, the program aims to encourage exchange of knowledge from different contexts; eventually this would also contribute to further improvement of the interventions in the region.

To facilitate sessions we have invited a number of eminent faculty who are among the best in their respective fields. We also value the views and insights of each of the participant and we hope sharing of knowledge and experience between faculty and participants would be fruitful. We hope you enjoy your time with us and wishing you all the best.

2. General Instructions

1. The Program is structured into Orientation Phase, Learning Phase and Research Phase. Attendance in the orientation and learning phase is necessary to get a certificate.
2. For any course related support your contact person will be Mr. Mathews Mullackal, Program Manager of the Foundation.
3. For any support relating to food and accommodation you have to contact Mr. A.H. Naqvi, WHR Manager (9610970317(mob), intercom 518 (res); 9 (office)) or Mr. Inder Singh (925100921).
4. Since the campus is away from the city a vehicle will be going to city every evening and will be back by 8.30pm, which can be used by you to purchase any essentials from the market or to make phone calls from any STD/ISD Booth. For any vehicle related support you have to contact Mr. B.S. Chauhan (9772166722).
5. While in the campus, please ensure that any of your activities are not becoming inconvenience to any other participant or members in the campus.
6. Three common pool computers are available for the use of participants, which will be connected to internet through a USB modem from 6 pm to 12pm. Participants are requested to being considerate of other participants in queue. We are unable to offer broadband connection since there are some technical problems with the service providers as we are in a remote location.
7. We have a collection of books which is getting catalogued to make it as a resource library. Though the process will be completed only by the end of this year, the books are available to the participants of the Scholar Program. A list of books is copied on the desktops of all the computers in the WHR class room. Every day our library assistant (Mr. Rakesh Chauhan) will be issuing books at 6.00 to 7.00pm, near the class room. All the participants are requested to return the books within 4 days or the end of the program whichever is earlier.
8. Photocopying facility will be available at the rate of Rs.1 per page. The Library Assistant, will assist you in getting the photocopy done.
9. During field visit, pack lunch and water will be taken with the team.
10. All the participants are requested to stay away from water bodies, since they are deeper than they appear and the bottom of it consists of extremely loose soil. Swimming is strictly prohibited in any of the water bodies.
11. In deference to the local culture, please wear unobjectionable clothes when you are out on field visits. If you are unsure about deciding on clothes, you can seek advice from your course coordinator.

3. Campus Map



4. Schedule

Date		Morning Session	
		9.00 to 11.00	11.00 to 1.00
23-Nov	Program		Welcome and Ice breaking
	Resource Person		Kanupriya Harish, Mathews Mullackal, Tara
24-Nov	Program	Development Issues- A problem Analysis	Development Issues- Transacting Thar
	Resource Person	Mathews Mullackal	Mathews Mullackal
25-Nov	Program	Talk on Management and Sustainable Development	Screening of short film "Jodhpur the legacy lives on" and Visit water bodies
	Resource Person	Varun Arya	JBF
26-Nov	Program	Water Harvesting in Mehrangarh Fort	Guided Tour- Fort
	Resource Person	Karni Singh Jasol, Curator	Karni Singh Jasol
27-Nov	Program	Tradition and Culture of Rajasthan	Tradition and Culture of Rajasthan
	Resource Person	Prakash Detta	Prakash Detta
28-Nov	Program	Talk on 'Conflict over sharing/ distribution of water in Rajasthan'	Field Visit with HH Gaj Singh (Unit 07)
	Resource Person	Ajit Singh	
29-Nov	Program	Unit 03 Pricing of Water - Classroom session	Unit 03 Pricing of Water - Classroom session ; Field Visit (Unit 03)
	Resource Person	S. Pandya	S. Pandya
30-Nov	Program	Free time	Free time
	Resource Person		
1-Dec	Program	Unit 09: Adaptation to Climate Change - Classroom session	Unit 09: Adaptation to Climate Change - Classroom session
	Resource Person	Arivudai Nambi	Arivudai Nambi
2-Dec	Program	Unit 06: Social Capital and Enabling Environment - classroom session	Unit 06: Social Capital and Enabling Environment - classroom session
	Resource Person	Astad Pastakia	Astad Pastakia
3-Dec	Program	Unit 06: Social Capital and Enabling Environment - classroom session	Jal Parishad Meeting (Unit 06)
	Resource Person	Astad Pastakia	Astad Pastakia
4-Dec	Program	Unit 04: Gender and Water - Classroom session	Unit 04: Gender and Water - Classroom session
	Resource Person	Seema Kulkarni, Anjal Prakash	Seema Kulkarni, Anjal Prakash
5-Dec	Program	Unit 01: Integrated Water Resource Management- classroom session	Unit 01: Integrated Water Resource Management- classroom session
	Resource Person	Anjal Prakash	Anjal Prakash
6-Dec	Program	Free time	Free time
	Resource Person		
7-Dec	Program	Unit 05: Sustainable and Inclusive Development - Classroom session	Unit 05: Sustainable and Inclusive Development - Classroom session
	Resource Person	Mathews Mullackal	Mathews Mullackal

Noon 1.00 to 2.00	Afternoon Session		Evening 7 pm to 9.30pm
	2.00 to 4.00	4.00 to 6.00	
Lunch, D Dining	Interpreting local culture & Tips on local Language FSD	General Briefing on the Program; Introduction about the Foundation Kanupriya Harish/ Mathews Mullackal	Dinner E dining
Packed Lunch	Development Issues- Mapping (Unit 10) Mathews Mullackal	Development Issues- Mapping (Unit 10) Mathews Mullackal	Dinner E dining
Packed Lunch	Visit Indira Gandhi Canal, and other water sources in the city	Talk on” why the independent India focused more on big projects on water” Chetan Pandit, Head, “National Water Academy”	Dinner- D Dining
Packed Lunch	Guided Tour- Fort Karni Singh Jasol	Guided Tour- Fort Karni Singh Jasol	Dinner- D Dining
Lunch, D Dining	Tradition and Culture of Rajasthan Prakash Detta	Tradition and Culture of Rajasthan Prakash Detta	Dinner- D Dining
Packed Lunch	Field Visit with HH Gaj Singh (Unit 07)	Field Visit with HH Gaj Singh (Unit 07)	Outdoor dinner
Packed Lunch	Field Visit (Unit 03) S. Pandya	Field Visit (Unit 03) S. Pandya	Dinner E dining
Lunch, D Dining	Free time	Unit 09: Adaptation to Climate Change - Classroom session Arivudai Nambi	Dinner- D Dining
Lunch, D Dining	Field Visit (Unit 09) Inhouse Faculty	Field Visit (Unit 09) Inhouse Faculty	Dinner- D Dining
Packed Lunch	Field Visit (Unit 06) Astad Pastakia	Field Visit (Unit 06) Astad Pastakia	Dinner- E Dining
Lunch, E Dining	Unit 06: Social Capital and Enabling Environment - classroom session Astad Pastakia	Unit 06: Social Capital and Enabling Environment - classroom session Astad Pastakia	Dinner- D Dining
Lunch, D Dining	Field Visit (Unit 04) Seema Kulkarni, Anjal Prakash	Field Visit (Unit 04) Seema Kulkarni, Anjal Prakash	Dinner- D Dining
Lunch, D Dining	Field Visit (Unit 01) Anjal Prakash	Field Visit (Unit 01) Anjal Prakash	Dinner- E Dining
Lunch, D Dining	Free time	Free time	Dinner- E Dining
Lunch, D Dining	Field Visit (Unit 07) Mathews Mullackal	Field Visit (Unit 07) Mathews Mullackal	Dinner- D Dining



Date	Morning Session		
		9.00 to 11.00	11.00 to 1.00
8-Dec	Program	Unit 08: Panchayati Raj (Decentralized Governance)- Classroom session	Unit 08: Panchayati Raj (Decentralized Governance)- Classroom session
	Resource Person	Mohan Kumar	Mohan Kumar
9-Dec	Program	Field Visit (Unit 07, 08)	Field Visit (Unit 07, 08)
	Resource Person		
10-Dec	Program	Unit 02: Water Quality Safe Drinking Water- Classroom Session	Unit 02: Water Quality Safe Drinking Water- Classroom Session
	Resource Person	Ravi Sewak	Ravi Sewak
11-Dec	Program	Talk on Ecological Water Engineering as an Imperative of Our Time of Climate Change	Jal Manch Meeting
	Resource Person	Jayanta Bandyopadhyay;	Rajendra Singhji; Ravi Sewak; Jayanta Bandyopadhyay
12-Dec	Program	Talk on Traditional Wisdom (Unit 07)	Group Discussion on Feedback on Development Perspectives
	Resource Person	Rajendra Singhji	Jayanta Bandyopadhyay; Rajendra Singhji
13-Dec	Program	Finalizing 1 page synopsis	Free Time
	Resource Person		
14-Dec	Program	Research(primary/secondary)	Research(primary/secondary)
	Resource Person		
15-Dec	Program	Research(primary/secondary)	Research(primary/secondary)
	Resource Person		
16-Dec	Program	Writing Paper (3000 to 5000 words)	Writing Paper (3000 to 5000 words)
	Resource Person		
17-Dec	Program	Writing Paper (3000 to 5000 words)	Writing Paper (3000 to 5000 words)
	Resource Person		
18-Dec	Program	Making ppt presentations, if required	Making ppt presentations, if required
	Resource Person		
19-Dec	Program	Presenting Research Reports	Presenting Research Reports
	Resource Person		

Noon 1.00 to 2.00	Afternoon Session		Evening 7 pm to 9.30pm
	2.00 to 4.00	4.00 to 6.00	
Lunch, D Dining	Field Visit (Unit 07, 08) Mohan Kumar	Field Visit (Unit 07, 08) Mohan Kumar	Dinner- Bhadrarjun
Lunch, D Dining	Unit 10: Participatory Approaches - Classroom session Mathews Mullackal	Unit 10: Participatory Approaches - Classroom session Mathews Mullackal	Dinner- D Dining
Packed Lunch	Field Visit (Unit 02) Ravi Sewak	Field Visit (Unit 02) Ravi Sewak	Dinner- D Dining
Lunch, D Dining	Field Visit/Discussions (Unit 07) Rajendra Singhji; Jayanta Bandyopadhyay	Field Visit/Discussions (Unit 07) Rajendra Singhji; Jayanta Bandyopadhyay	Dinner- E Dining
Lunch, D Dining	Developing Research Questions/ Field visit in house faculty	Developing Research Questions/ Field visit in house faculty	Dinner- D Dining
Lunch, D Dining	Free Time	Free Time	Dinner- D Dining
Lunch, D Dining	Research(primary/secondary)	Research(primary/secondary)	Dinner- D Dining
Lunch, D Dining	Research(primary/secondary)	Research(primary/secondary)	Dinner- D Dining
Lunch, D Dining	Writing Paper (3000 to 5000 words)	Writing Paper (3000 to 5000 words)	Dinner- D Dining
Lunch, D Dining	Writing Paper (3000 to 5000 words)	Writing Paper (3000 to 5000 words)	Dinner- D Dining
Lunch, D Dining	Presenting Research Reports	Presenting Research Reports	Dinner- D Dining
Lunch, D Dining	Valedictory		

5. Units

Unit 1: Integrated Water Resource Management

Faculty: Dr. Anjal Prakash

Integrated Water Resource Management (IWRM) is increasingly gaining currency in the contemporary discourse on water mainly influenced by the two popular perspectives on water - scarcity and crisis management. Therefore focus of the discourse has shifted from development of water resources for its productive use and thereby poverty reduction, to demand management through pricing and centralized formal structures for governing water use and sectoral allocations using river basin as a unit. IWRM as an approach to the management of water resources is acclaimed for pooling together a bunch of well-intended and incontestable ideas. However, it has been also criticized for being ambiguous and imprecise and amenable to significant distortions leading to undermining the very spirit of IWRM as a process oriented, people focused, and sustainable development of land and water resources. The contemporary discourse therefore, is divided into three broad streams, one, rejecting the approach for being politically maligned and using IWRM as a pretext for pushing the neo-liberal agenda; second, questioning the suitability in the context of developing countries predominated by informal water economies while accepting its relevance to the developing countries; and third, accepting the notion of IWRM as politically benign hence, trying to explore alternative variants, particularly by trying to integrate formal and informal mechanisms that are multi-layered and pluralistic in nature. This module is expected to expose the participants on the conceptual understanding and historical evolution of IWRM approach and will highlight the need for an integrated approach to the development, and sustainable management of water resources in developing countries. This includes social equity approach to management of water resources and an analysis of the conflict between traditional and modern system of water management.

Unit 2: Water Quality and Safe Drinking Water

Faculty: Mr. Ravi Sewak

The unit will discuss what the quality of water means, need of safe drinking water and how to ensure drinking water is safe. It will give insights on extent of the issue and social, political, economical and technical dimensions of safe drinking water. Various ways and existing practices to ensure availability of safe drinking water to the masses will be explored. It will also discuss the concept of right to safe drinking water, challenges at grassroots level and importance of sanitation.

Unit 3: Pricing of Water

Faculty: Mr. Shubhang Pandya

Water is priceless; most essential for lives on the earth. However, pricing of water is becoming unavoidable in today's world. The unit will debate on pricing of water from the premise that water is essential for sustaining lives. It will discuss pros and cons of Market approach (commoditization) and right based approach for bringing water security, particularly in the developing world. It will then discuss the value of water and who pays more in the status quo. The unit will also explore whether pricing is essential, and if so how the pricing should be done: whether it can be left for market forces, controlled by government or left to the communities. Finally, the cultural aspect of pricing of water will be discussed in the context of Rajasthan.

Unit 4: Gender and Water

Faculty: Ms. Seema Kulkarni

The unit will discuss the gender dimensions of water issues: It would look at different gender inequities in the water sector and the impact that has on women's lives. It would focus on why water is a gender concern and discuss the different arguments and advocacy strategies tried by gender water advocates. Finally it would discuss the way forward for attaining gender equity in the water sector. The unit will draw on experiences from different parts of India.

Unit 5: Sustainable and inclusive Development

Faculty: Mr. Mathews Mullackal

The unit will highlight prevailing concepts and debates on Sustainable Development and Inclusive Development. It will also discuss about the historic overview of development process and how the concept of sustainable development and inclusive development became recurring themes in development discourse. While acknowledging the importance of a development process that is sustainable and inclusive, the unit will raise a serious question: whether sustainable and inclusive development is possible at all in the contemporary development paradigm. While discussing the question, the unit will draw insights from various concepts of development, particularly Gandhian ideology. The unit will also discuss how to include weaker sections of the community and how to ensure sustainability of grassroots initiatives, drawing from the experiences of NGOs in the region.

Unit 6: Social Capital and Enabling Environment

Faculty: Dr. Astad Pastakia

Social capital refers to the process of building people's institutions that can take charge of the group or community level developmental activities. This includes planning, implementation and monitoring of projects. It also includes governance and distribution of rights, responsibilities and benefits among participating members. Hence people's institutions become central in the development process especially with regard to management of natural resource base, on which the lives and livelihoods of the people depend. The module will examine the available theories and practice of facilitating people's institutions for sustainable and inclusive development. The pedagogy will include a mix of theoretical sessions, case discussions and field visits

The concepts of creating enabling environment and social capital approach for community development will be elucidated and its importance in the Rajasthan context will be explained. Various forms of community institutions and networking, which enable communities to cope up with harsh and changing environment in the Thar Desert and to chart out their own trajectory of inclusive, sustainable development will be discussed. Drawing from experiences and cases, it will explore how an enabling environment for development can be created with social capital approach. The unit will bring out the central role of people's empowerment through people's institutions both as a means as well as a goal of sustainable development. The challenges and tasks involved in facilitating the emergence of viable and sustainable people's institutions will be discussed.

Unit 7: Traditional Wisdom

Faculty: Shri Rajendra Singh

The unit introduces the participants to Traditional Water harvesting systems in Rajasthan, and will discuss how the traditional knowledge has been developed to address the location specific issues. It will also debate on the superiority of traditional wisdom and modern technologies, in the context of development. The unit will also explore ways to revive, mainstream and enhance traditional wisdom to address development challenges.

Unit 8: Panchayati Raj (Decentralized Governance)

Faculty: Dr. Mohankumar

The unit introduces the participants to the concept and practices of Panchayati Raj, with a historical analysis of governance in India. It will debate the substance of decentralization in democratic governance to address location specific issues in an environment friendly, participatory, transparent and accountable manner. It will also discuss how effectively the Panchayati Raj in India could achieve the perceived advantages of decentralized governance, drawing from examples of various states.

Unit 9: Adaptation to Climate Change

Faculty: Dr. Arivudai Nambi

Adaptation to climate change is gaining more attention today. Climatic change will have considerable consequences on the regional level with respect to land-use, disaster management and economic activities. Within the next decades demographic changes, urbanization processes, and the consequences of climate change will have significant influence on the challenges of regional planning and development. Increasing land consumption, and higher population densities with the associated infrastructure needs and water and food demand on the one hand, and the tendency to extreme hydrological events, and soil degradation lead to growing conflict potentials. The unit will talk about various development challenges posed by the human induced climate change and need for coping with changing climate. The concept of adaptation, various types of adaptation and application aspects of adaptation will be discussed drawing examples from case studies.

Unit 10: Participatory Approaches

Faculty: Mr. Mathews Mullackal

Participatory approach has become a dominant paradigm in development and considered as the backbone of the bottom up development. Participatory Rural Appraisal (PRA), a prominent term among development practitioners, has evolved from Rapid Rural Appraisal (RRA) which was a strategy practiced by policy makers in 1970s to get quick access to socio-economic data. It was used as a tactic to arrive at an approximate value of many variables in a complex system in order to prioritise focused and specialised studies. By the end of 1980s, PRA was evolved from RRA by ensuring participation of the people in the process of appraisal and in development process. The unit introduces the participants to the notions, interpretations and expected outcomes of participatory approaches. It will also examine evolution of participatory approach in development discourse. Various tools as well as practices will be discussed. It will debate on the pros and cons of participatory approach by examining various challenges drawing from experiences. It will also explore possibilities of participatory research in the development context and its suitability to generate quantitative and qualitative data.

6. Faculty

Mr. Ajit Singh is a member of the Indian Police Service and has been a police officer for more than 28 years. Besides the day to day policing, his experience spans from handling violent protests to investigating serious and sensational crime having inter-state and international ramifications to promoting community policing, to dealing with gender violence and anti-corruption work. His work as a police officer has brought him face to face with some of the most violent agitations over sharing and distribution of water in the state of Rajasthan, a problem which appears to have come to stay for long. Search for an answer to this professional challenge has made him go deeper into the issue of conflict over water, looking for the causes for it, the role of the various actors and the vexatious issue of the right to water. His thesis for the Master's course in International Humanitarian Action from Uppsala University, Sweden, was on the prolonged unrest over the sharing of water of the Bisalpur dam in the Tonk district of Rajasthan, a conflict that reflects the social costs a society has to pay for development that concentrates on technological solutions and ignores the sociological input in its developmental plans. Ajit Singh is also a founding member of a society which has been formed with the aim of encouraging research and study into various aspects of criminal justice system and inviting ideas and public participation to strengthen the service delivery of the police. In the course of his service in the police Ajit Singh has been awarded the Police Medal for Gallantry, the President's Police Medal for Distinguished Services and the Indian Police Medal for Meritorious Services. At present he is posted as the Additional Director General of the Anti Corruption Bureau, Government of Rajasthan.

Dr. Arivudai Nambi currently serves as the Director of the Climate Change Program at the M.S. Swaminathan Research Foundation (MSSRF), India. He has more than 10 years of experience in the development sector. His expertise and experience is in the areas of Community Based Adaptation to Climate Change, Vulnerability Assessment, Biodiversity Conservation, Environmental Governance and Environment Education. He serves in several committees of Government of India including the committees constituted to study the climate impacts by the Ministry of Environment & Forests, and the Ministry of Water Resources. He is part of the National delegation that visited many countries including the US and UK to share the Indian civil society's perspectives on climate issues. He has been very closely associated with the Conference of Parties (COP) meetings of the UNFCCC & CBD for the past eight years. Prior to joining MSSRF, he worked with the United Nation's Millennium Ecosystem Assessment Program as a 'Senior Associate' based in Chicago. He also served as a Consultant for five years with the Secretariat of the Consultative Group on International Agricultural Research (CGIAR) at the World Bank, Washington DC. Here, he researched on public-private partnerships, agricultural policy and governance issues. Mr. Nambi holds a doctoral degree in Environment Policy from the Maxwell School of Citizenship and Public Affairs at Syracuse University, New York. He holds two Master of Arts degrees, one in Public Management from University of Madras, India and another in Development Studies from Cambridge University, UK. He majored in Physics for his Bachelor degree from University of Madras, India. He has contributed many popular articles and journal papers on a range of environment & development issues.

Dr. Anjal Prakash is Senior Fellow, Research and Outreach, at South Asia Consortium for Interdisciplinary Water Resources Studies, SasiWATERS based at Hyderabad in India. A development research and communication professional, having twelve years of experience in diverse organizations ranging from state & multi-state NGOs to quasi government organization, funding agency and South Asian research and capacity building organization, Dr. Prakash's interest lies in for improving living environment and natural resources base of marginalized communities in rural and urban locations. He has worked extensively on the issues of groundwater management, gender, natural resource management, and water supply and sanitation in western India. Before joining SasiWATERS, Dr. Prakash worked with the policy team of WaterAid India, New Delhi, where he handled research and implementation of projects related to Integrated Water Resources Management (IWRM) and with Government of Gujarat on externally funded large scale water supply project through Water and Sanitation Management Organisation (WASMO) based at Gandhinagar. Having Masters Degree in Social Work with specialisation in Urban and Rural Community Development from Tata Institute of Social Sciences, Mumbai in 1997, Dr. Prakash got Ford Foundation Scholarship to pursue PhD in Environmental Sciences from the Department Of Environmental Sciences, Wageningen University and Research Center, The Netherlands. He worked on the issues of groundwater management in north Gujarat as a part of his PhD which was later published by Orient

Longman titled *The Dark Zone: Groundwater Irrigation, Politics and Social Power in North Gujarat*. Papers written by him have been published in leading journals and as chapters in edited volumes.

Dr. Astad Pastakia is a freelance developmental consultant based at Ahmedabad city in Gujarat, India. His career spans a decade of developmental work at the grassroots, followed by another two in developmental academics and consultancy. Through documentation and research, he strives to strengthen the hands of developmental workers and their initiatives on one hand and policy makers on the other. He completed Fellow Programme in Management (FPM) from the Indian Institute of Management, Ahmedabad, in 1996. His research and consultancy work has focused on: common property resource management, conflicts and their resolution in community based organisations, innovations and entrepreneurship for sustainable development, rural livelihoods and community based entrepreneurship, institutional sustainability, participatory monitoring and evaluation and farmer-led participatory research. His thesis entitled *Grassroots Innovations for Sustainable Development: The Case of Agricultural Pest Management*, led to the publication of a paper "Grassroots Ecopreneurs: Change agents for a Sustainable Society" in the *Journal of Organisational Change Management* (1998). The paper was adjudged Outstanding Paper of the Year Award (1999) by MCB University Press, London. He has edited two books and published about a dozen papers in national and international journals. His book, *Locked Horns: Conflicts and their Resolution in Community Based Natural Resource Management*, was published by Books for Change, Bangalore (2008). He has also edited with Brij Kothari and Vijay Sherry Chang, *Farmer-led Participatory Research: Cases from Western India*, Books for Change, (2002). Currently he is working on a four volume Strategy Handbook on Livelihood Augmentation in Rainfed Areas. The project is being anchored by Development Support Center, Ahmedabad and supported by the Aga Khan Foundation, India and the European Union. The fourth volume has a cross-cutting theme and focuses on Strategies for Building Social Capital in the context of livelihood augmentation in rain fed areas.

Mr. Chetan Pandit heads the "National Water Academy" (NWA) at Khadakwasla, Pune. He studied at IIT-Delhi for his B.Tech. in Civil Engineering; at National University of Ireland, Galway, for M.Tech. in Engineering Hydrology; and is currently pursuing a PGD in Environmental Law from National Law School, Bangalore. Soon after graduation he joined Central Water Engineering Service (CWES) in 1976, where has been working ever since. During these 33 years he has worked in Central Water Commission; Water and Power Consultancy Services; Ministry of Water Resources; and Upper Yamuna River Board. His work spans a diverse range that include construction of hydel projects; hydrologic studies and project appraisal; flood management; design and installation of telemetry systems; management of R&D; policy planning; managing a river board; and teaching at the NWA. His main interests in technology are mathematical models in deterministic hydrology, and telemetry systems. However, over the years he has developed a more keen interest in water policy related issues; and devotes considerable time in analyzing the key issues that confront water sector, and particularly the polarization of views in water sector. A regular writer and speaker in various seminars, he has authored one book, "Advanced Techniques in Turbo Pascal", a text book for advanced users of Turbo Pascal programming platform; and has written several papers. He is a founder-member of the Delhi Center of Indian Water Resources Society (IWRS); Chairperson of the Delhi Center for 3 years; Editor of the IWRS Journal and News Letter for 2 years; Member of IIT Delhi Senate for one year. Chetan Pandit fancies himself as an amateur musicologist (a music theorist) and is the Founder-President of an NGO named "Anaahat" that works for searching out rare recordings of Indian classical music and preserve them in digital format.

Dr. Jayanta Bandyopadhyay is Professor and Head at Centre for Development and Environment Policy, Indian Institute of Management, Kolkata. He was born in Calcutta (India) in 1947. After completing his doctorate in engineering from the Indian Institute of Technology Kanpur, he turned his professional attention to the inter-discipline of science and technology studies. The transition was encouraged by his close interaction with the various environmental movements under the general umbrella of the Chipko Andolan. Over time, he closely observed various water and forest conservation movement in South Asia. He was a member of the Senior Professional Staff at the International Centre

for Integrated Mountain Development (Kathmandu) where he was deeply involved in the study of Himalayan rivers. In 1991 he was invited by the UNCED Secretariat to draft the chapter on the world's mountains for Agenda-21. In 1993 he joined the International Academy of Environment (Geneva) as the Director of Research. He was the President of the Indian Society for Ecological Economics (2006-8) and is presently member of the Board of the International Society for Ecological Economics (ISEE). His research in the past 25 years has been guided by the objective of generating trans-disciplinary public interest knowledge on critical issues related to science and society. He has published more than 100 papers, books, articles, etc. His latest book published by Oxford U P is entitled Water, Agriculture and Sustainable Well-being. His current research interest is on knowledge gaps in Himalayan water systems in the context of climate change.

Mr. Mathews Mullackal is the Program Manager in Jal Bhagirathi Foundation (JBF). He is primarily responsible for developing new programmes, adding value to the existing projects and action oriented research. He has a unique multidisciplinary educational background. He did his bachelor's degree in Civil Engineering from the University of Calicut, post graduate diplomas in Environmental Management and NGO Management from Annamalai University and a Masters degree in International Development from the University Of Bristol, UK. He has eight years of work experience, mainly in water and development sector in India and Middle East. He is experienced in all phases of development projects including writing proposals, budgeting, implementation, monitoring and evaluation, research, strategic planning, analytical work, and community mobilization. He has strong interest in environment and development and believes that bottom up development leading to community empowerment and emancipation of marginalized sections is essential for addressing the challenges of the present world.

Dr. Mohan Kumar is an Associate Professor in Institute of Development Studies, Jaipur. He has done extensive research and teaching on various development issues for the last 20 years. His areas of interest include Decentralisation and Planning, Agriculture and Development Issues, and Rural Labour Market and Development. He did his Masters in Economics from the University of Kerala, MPhil in Applied Economics and PhD in Agricultural Economics from Jawaharlal Nehru University, and Post Doctoral from the York University. Previously, Dr. Mohan worked as a Research Associate in Centre for Development Studies and as Associate Professor in Kerala Institute of Local Administration, which is a specialised institute on decentralized governance. He also served as an Editor of KILA News Journal, Expert Panel Member of Kerala State Planning Board and President of Rubber Board Research Guild at Rubber Research Institute of India. Dr. Mohan Kumar took an active role in the Peoples Plan campaign in Kerala, which is a noteworthy experiment on decentralization in India.

Ms. Kanupriya Harish is the Project Director of the Jal Bhagirathi Foundation (JBF) and is heading the professional resource base of the JBF. She obtained an MPhil from Jawaharlal Nehru University in Delhi, and has been working in the JBF since 2004 focussing on the revival of traditional water management systems through community institutions. She has worked on mainstreaming gender in water management among very feudal and caste ridden communities. As head of the project team she is managing the implementation of a multi-pronged community water management programme being implemented in three districts of Western Rajasthan, India. She is also involved in advocacy campaigns for ensuring pro poor policies in water resource management. She has a keen interest in the empowerment of marginalized women in the region and initiated many programmes for mainstreaming them in the development process. She also strongly advocates the importance of traditional wisdom in addressing local issues.

Shri. Rajendra Singh, known as Pani Baba-(Water Man), is a prominent personality in community based water resource management. He has been the Vice Chairman of Jal Bhagirathi Foundation since its establishment. He is a Post Graduate in Hindi Literature and Graduation in Ayurvedic Medicine and Surgery. He has led many campaigns relating to issues of community and environment such as Sampurna Kranti, Bhoodan Andolan and Ganga Ahvan. He also worked with Youth Education Programme of the Ministry of Education, Government of Rajasthan. He has been

the Chairman of Tarun Bharat Sangh (TBS), a prominent national NGO addressing NRM issues related to water, forest and common properties. Tarun Bharat Sangh, under his leadership, has become a leading NGO in India which has been given numerous national and international awards for its work in recharging of ground water through community participation. He has received numerous awards for his exemplary work in the social sector. Some of the notable awards are: Ramon Magsaysay award by The President of Philippines, Indira Gandhi Paryavarn Puraskar by Government of India (This is the Highest National Award for Environment) and the prestigious Jamnalal Bajaj Award from Jamnalal Bajaj Foundation.

Mr. Ravindra Sewak is the India Country Director of Safe Water Network. Ravi Sewak brings extensive technical and operating experience in the field of water and waste water. Most recently he was Sustainability Director for PepsiCo, India where he developed and implemented plans to attain positive water balance, including the implementation of rain water harvesting structures in all the Pepsi facilities, reducing sludge & power consumption and increasing PepsiCo's green energy mix. He developed the Aquafina bulk water process, packaging and go to market strategy (2002 launch) and developed and managed service networks for PepsiCo's purification systems and refrigerators, including to small villages. As Franchise Director, Mr. Sewak development of PepsiCo's market share in India included increased distribution to small villages. He is a Mechanical Engineer with an MBA from Indian Institute of Management, Ahmedabad. Ravi is also on the Confederation of Indian Industries National Committee on Water.

Ms. Seema Kulkarni is one of the founding members of the Society for Promoting Participative Eco-system Management (SOPPECOM), Pune. She has been with SOPPECOM since 1992, and has worked on gender and rural livelihoods since 1989. As a Fellow at SOPPECOM, she co-ordinates the organisation's gender, water and livelihood activities. Seema has published several articles and book chapters on issues of gender, water, and rural livelihoods. She is associated with the women's movement in Maharashtra, particularly in south Maharashtra, where she has worked with the Stree Mukti Sangharsh Chalwal.

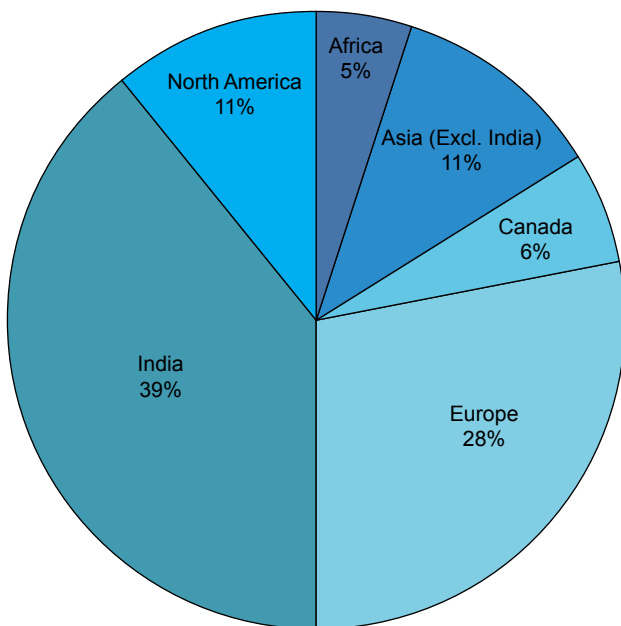
Mr. Shubhang Pandya is veteran consultant in the region. He holds qualifications in Engineering, Management and Law, from Indian and European academic institutions, and has a professional experience spanning over 35 years, mainly in management and engineering consulting, to Indian, as well as Fortune 100 corporations, in India and the neighboring Asian region. He has rendered services to governments in Public Systems management, in urban poverty eradication, irrigation, cottage industries, etc., including for World Bank projects. He also managed and rendered consulting support to leading NGOs in western India, synthesizing, what he calls, "rigorous discipline of the for-profit sector, and the humane processes of the NGO sector".

Prof. Varun Arya is an accomplished management professional. He studied at IIT Delhi (1976-81 batch) and IIM Ahmedabad (1981-83 batch). Thereafter, he worked for 16 years in senior positions with the leading companies like Indian Rayon, Reliance and American multinational DuPont. His work experience was primarily in sales & marketing, business development and profit centre (SBUs) management. For the last around 10 years, he is associated with his dream project of establishing and shaping up a top quality management institute, envisioned to be a model of no compromise, in an out of the way place like Jodhpur in his home state of Rajasthan. Amongst the various positions held by Prof. Arya, he has been the President of prestigious IIT Delhi Alumni Association - the apex body of over 20000 member alumni based worldwide, alumni representative on the Senate of IIT Delhi, member of the Technology Business Incubation Units (TBIU) Board of IIT Delhi and Secretary of IIM Ahmedabad Alumni Association. He is presently on the Boards and Advisory Councils of some companies, educational institutions and other organisations. He is also a member of IIM Ahmedabad Governing Society.

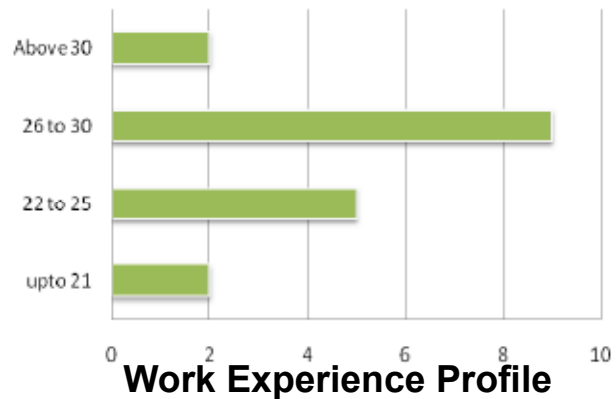
7. Participants Profile

The participants are selected from diverse background through predetermined selection criteria which assess a range of parameters including educational background, academic performance, work experience, geographic representation and motivation. A profile of participants is given below. It is evident that we encourage maximum diversity to bring different perspectives at the program.

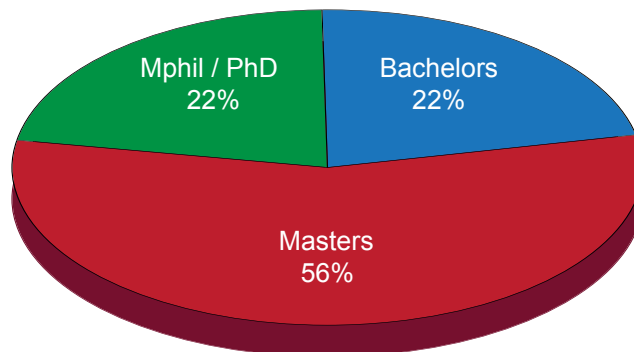
Geographic Representation



Age Group



Qualification Level



Participants List

Sr. No.	Name of Candidate	Nationality	Highest Qualification (Completed or ongoing)	School/ University	Email
1	Andrew Mistry	Canada	BA: -Political Science/ Philosophy	Wilfrid Laurier University	mistry.andrew@gmail.com
2	Anurag Shekhar	Indian	M.A. in Human Resource Management and Labour Relations	Tata Institute of Social Sciences (TISS)	anurag.tiss@gmail.com
3	Bozena Sojka-Koirala	Polish	Master of Research in Social Research	University of Aberdeen	b.sojkakoirala@abdn.ac.uk
4	Buddi Kumar Shrestha	Nepali	M. Phil.(Education and Development)	Tribhuvan University, Nepal	bshrestha18@yahoo.com
5	Celie Manuel	DANISH	M. Sc. Public Health	University of Copenhagen	celie24@gmail.com
6	Edmund Akoto-Danso	Ghanaian	Mphil (Environmental Science)	University of Ghana, Legon - Accra	E.Akoto@cgiar.org
7	Gabriel Garfinkle	USA	BA: -Political Science	Connecticut College, USA	fsdGabriel@gmail.com
8	Hetal Shah	Indian	PG Diploma- HR	ICFAI, Jaipur	hetalaiesecja@gmail.com
9	Jamie Randall	British	Chartership - Water & Environmental Manager	Institute of Water and Environmental Management, London	j.randall1@lancaster.ac.uk
10	LIANG Pui Kwan	Chinese	BA (HONS) CULTURAL STUDIES	LINGNAN UNIVERSITY	pkliang@ymail.com
11	Magdalena Schab	Polish	PhD Political science	University of Nicolaus Copernicus	magdalena.schab@gmail.com
12	Nanda Dulal Das	Indian	Mphil (Agricultural Land Use)	Jawaharlal Nehru University (JNU)	nandadulaldas@gmail.com
13	Roma Rana	Indian	MA Literature	Punjab University	romakaur@gmail.com; romarana@hotmail.com
14	Salman Mohammed	Indian	Btech Mechanical Engineering	Adhiyamaan College of Engg, Tamilnadu	frudo_sal@gmail.com; barossal@gmail.com
15	Sarandha	Indian	M.A. in Social Work	Tata Institute of Social Sciences (TISS)	saarandha@gmail.com
16	Scott Barnes	United States of America	Master of Laws	University of Sydney	sbar5525@uni.sydney.edu.au
17	Siddharth Sareen	Indian	Integrated Master of Arts in Development Studies,	Department of Humanities and Social Sciences Indian Institute of Technology (IIT), Madras	sidsareen@gmail.com
18	Yonas Mekonen	Swiss	Master in Political Science, specialization in: Political Economy	University of Sydney	ymek9528@uni.sydney.edu.au





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