# **Ecosan Capacity Development Workshop**





# Success Story of Ecosan Services Foundation,India

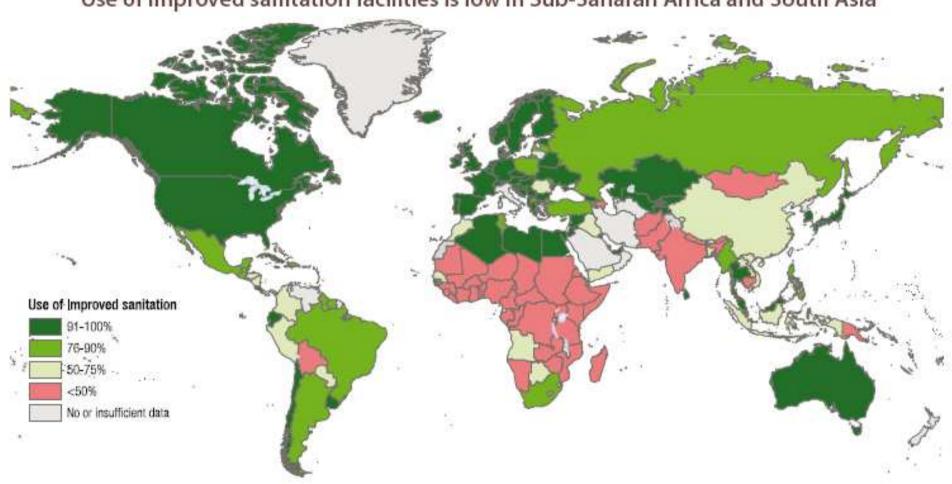
Mrs. Pradnya Thakur Head Projects Ecosan Services Foundation Pune, Maharashtra, India







# **Global Sanitation Status**

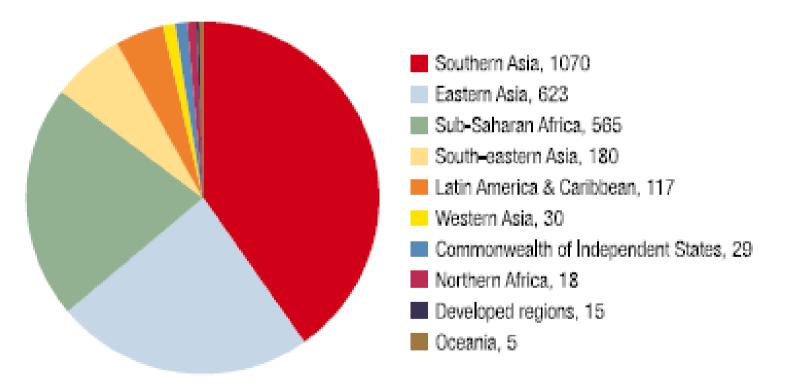


Use of improved sanitation facilities is low in Sub-Saharan Africa and South Asia

Source: JMP report 2010

# **Asian Sanitation Status**

# 2.6 billion people – 72% of whom live in Asia – do not use improved sanitation facilities



# Daily increase in population to be served to meet the MDG target on water supply and sanitation in 2015

Country	Projected Populatio	Populatio		Daily Increase Needed In People To Meet The MDG Targets	
	n (10³)	Water Supply	Sanitatio n	Water Supply	Sanitation
Afghanistan	41,401	no data	no data	-	-
Bangladesh	168,158	86	62	8,000	7,000
Bhutan	2,684	no data	no data	-	-
India	1,260,366	84	56	33,000	82,000
Iran	79,917	96	92	3,000	3,000
Maledives	416	100	no data	> 50	-
Nepal	32,747	85	56	2,000	2,000
Pakistan	193,419	92	69	9,000	11,000
Sri Lanka	22,293	86	60	1,000	1,000
South Asia	1,801,401	86	60	64,000	115,000

# **Sanitation Issues of India**

- Health and Dignity
- Sanitation to 665 million people
- Rapid urbanization-increased generation of waste water
- Increased gap between generation and treatment of waste water
- Decrease in fresh water availability per capita





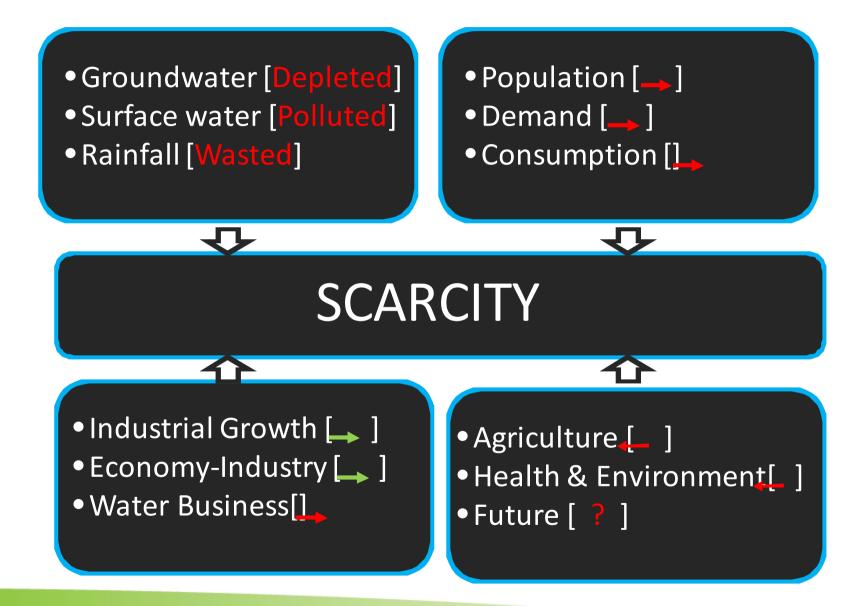


# Cultural Diversity in INDIA

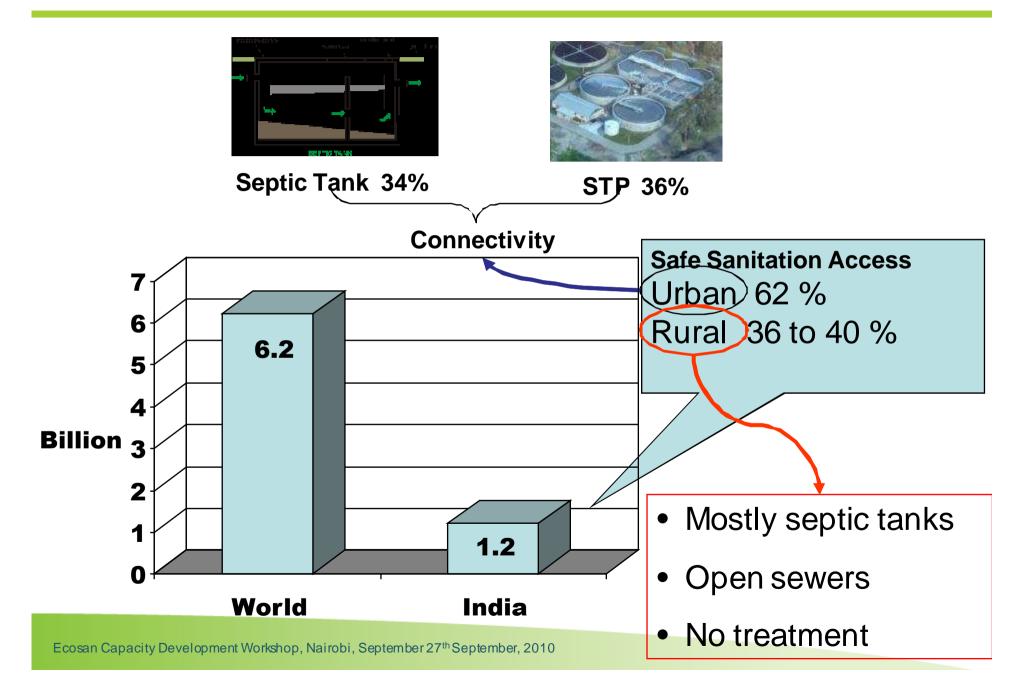
States in India 33, Languages spoken around 30

me Land of cultural diversity embossing unity and people symbolizing passion for one ess and freedom.....

# **The Indian situation**



# **Crisis of Sanitation in India**



# **National Sanitation Policy**

#### Key Issues :

Poor Awareness
Social and Occupational aspects of Sanitation
Fragmented Institutional Roles and Responsibilities
Lack of an Integrated City-wide Approach
Limited Technology Choices
Reaching the Un-served and Poor

Lack of Demand Responsiveness



#### **Components of National Urban Sanitation Policy**

•Awareness Generation

•Institutional Roles

•Monitoring & Evaluation (M&E), and regulatory arrangements.

•National Urban Sanitation Policy

# How to meet the Challenges...

- Supporting the development of:
  - innovative ecological sanitation systems
  - the **institutional and economical framework** for implementation
  - the acceptance of reusing recycled nutrients in agricultural applications
- Providing capacity building, knowledge dissemination, experience sharing and implementation support.
- Networking with different like minded organisations.

# Coming together....and exchanging ideas



# International Workshop on Ecosan in 2005



International conference on Ecological Sanitation organized by Indian Water Works Association

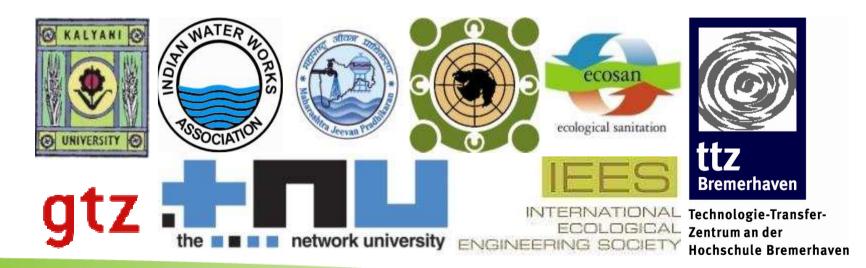
# Felt strong Need of 'Experts' who know and understand Sustainable Sanitation

# Formation of ESF in 2006



# About ESF

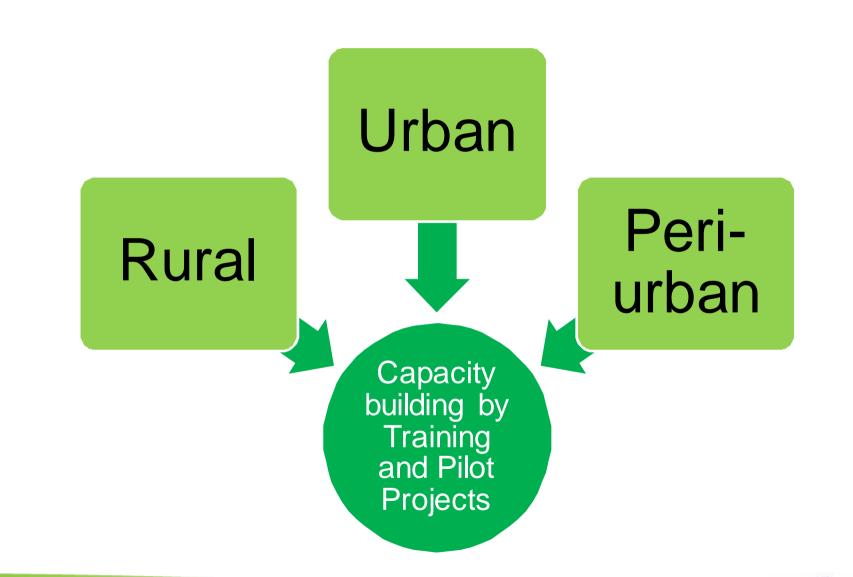
- Ecosan Services Foundation (ESF) a 'section 25' non profit company has been founded in 2006 jointly with seecon international gmbh, Switzerland and with the support from GTZ, Germany
- Small core team, but flexible network structure with experts and partners from all over India and the world
- Lead organization in IESNI network



# ESF aims to transform into a sustainable key resource centre as a leading knowledge hub in sustainable sanitation and water management.

# **Objectives**

- Developing sustainable organizational structure and processes.
- Strengthening our position in capacity development through training, piloting and demonstration, awareness raising, R & D and coaching in new enterprises.
- Strengthen our networking platform with national and international experts in the sector.
- Open dissemination of knowledge through face-to face as well as IT enabled services for institutions and individuals.
- Quality Management and organizational learning to highlight best practices in the sector.



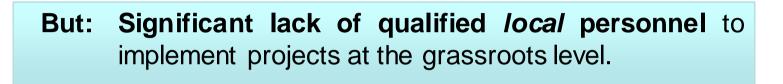


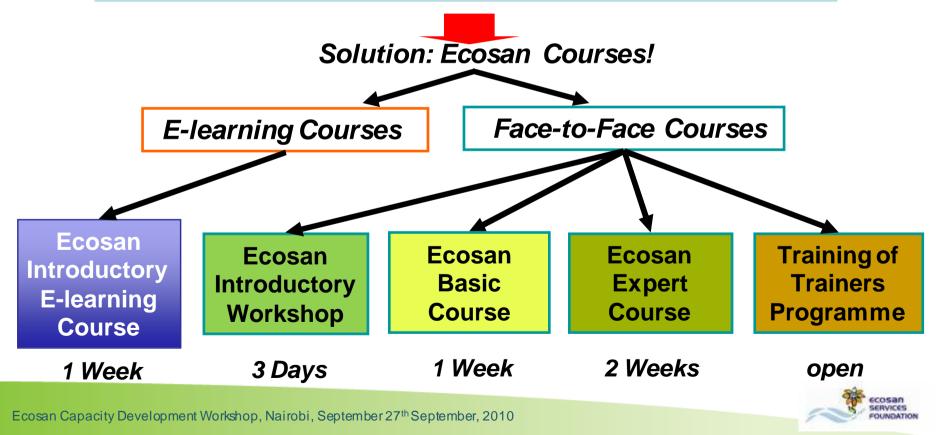
# **Capacity building activities**



# Why Ecosan Courses?

Many successful ecosan projects raised awareness and acceptance for innovative ecological sanitation solutions worldwide.







National and International team of Ecosan experts delivered lectures



# **Teaching Methods**

#### (3) Group Works

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Interactive group works from assessing drawbacks of conventional sanitation systems to the designing and planning of real ecosan projects.





#### (4) Interactive Role Plays



By playing different roles, participants get an insight into the requirements of different stakeholder groups to a sustainable sanitation system.

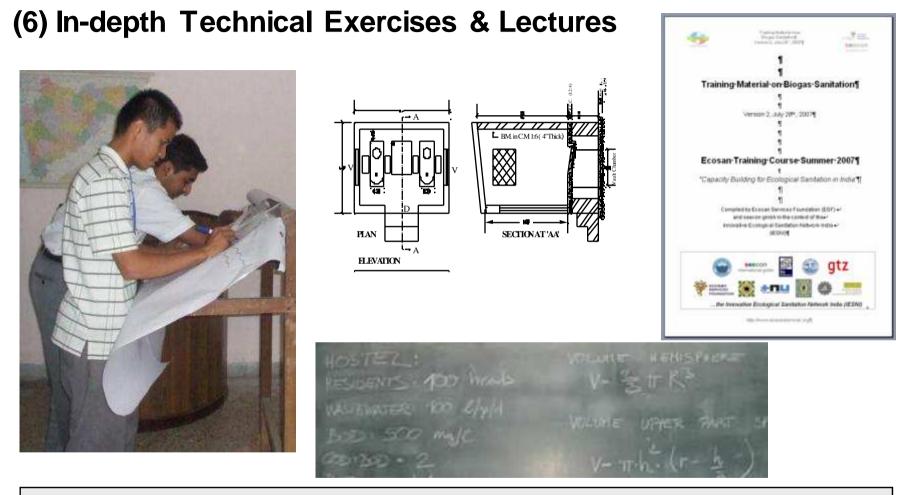


# (5) Field Trip to Different Ecosan Projects



By visiting ecosan projects in a two-day field trip, participants see working ecological sanitations systems in practice, which is very important for their thorough understanding of the concept.

# **Teaching Methods**



In the second week of the course, participants learn how to implement various ecosan technologies, such as Urine Diverting Dehydration Toilets, Biogas Systems & Greywater Management Systems.

#### **Teaching Methods**

# (7) Own Ecosan Project Development

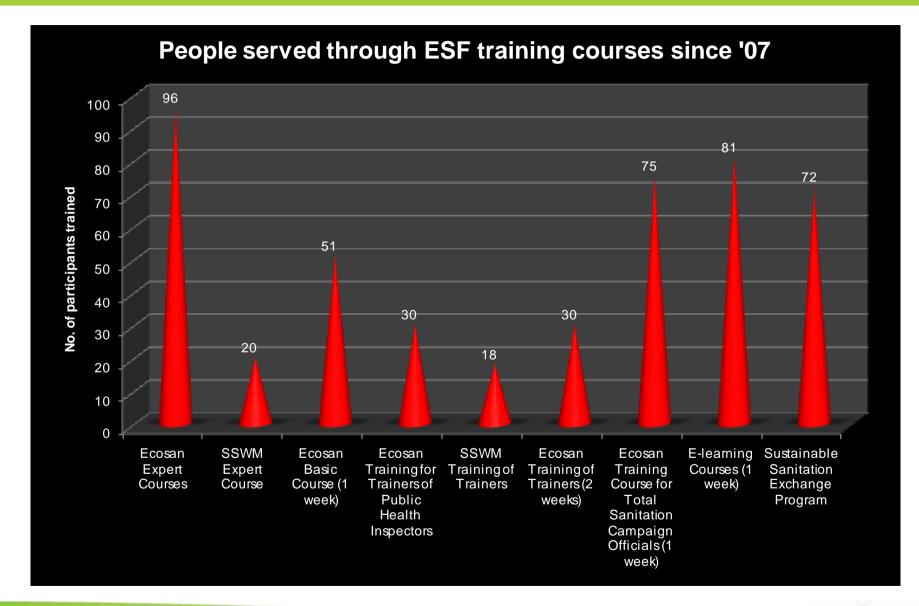






In the second week of the course, participants develop an outline of an real ecosan project including the project background, decision making process, a holistic reuse concept and technical alternatives.

# No. of Experts Developed during Training Program





# **Other Capacity Building Activities**



# **Other Capacity Building Activities**

#### Capacity building of city Managers





# Awareness Generation through workshops and conferences

**Policy makers** 

NGOs and Professionals

**Educational Institutes** 

Users

Technologist

Builders, developers and manufacturers

**Financial Institutions** 

Mass awareness through media



# **Projects**



# **Completed Project**

Name of the project	Type of project	Number of users served	Reuse po	otential
Adarsh Vidyaprasarak Sanstha's College of Arts & Commerce, Badlapur	Decentralized Wastewater Treatment System	2600	WW 8m3 /day	Urine 300L/day





# **Completed Project**

Name of the project	Type of project	Number of people served	Reuse potential
Shree BaleshwarAnudanit	Decentralized Wastewater	500	Grey water
Primary and Secondary Ashram School, Sarole Pathar	Treatment System		12m3/day





# **Completed Project**

Name of the project	Type of project	Number of people served	R	euse potential
KamaliniKuteer resort, Near Pun	e Decentralized Wastewater Treatment System	30	5m	WW n3/day
Name of the project	Type of project	Number of peopl served	е	Reuse potential
Oasis resort,	Decentralized	700		WW
Pune	Wastewater	100		VVVV







# **Ongoing Project**

Name of the project	Type of project	Number of people served	Reuse potential
Eco – village project, Katewadi, Baramati To be implemented at: • Primary school; •Hanuman temple; Bus stand.	Sanitati- on and water manage ment systems	<ul> <li>Primary school: About</li> <li>520</li> <li>Hanuman temple: 200;</li> <li>Bus stand: 600</li> </ul>	WW •Primary school: 860L /day; •Hanuman temple: 5500L/day; •Bus stand: 5400L/day







# **Ongoing Project**

Name of the project	Type of project	Number of people served	Reuse potential
Housing complex, Thane	5 Decentralized Wastewater Treatment Systems in the whole complex	About 1300	WW 74 KLd, 79 KLd and 15 KLd at Desai ; 18Kld and 139 Kld at Khidkali.





# **Sustainable Sanitation and Water Resource Management**

# **Eco Office Pune:**

1. Water conservation: Installed dual flush system and water saving urinals.

Approx. 300 I/day water conservation due to dual flush system and water saving urinals

1. Roof top rainwater harvesting: Harvesting of roof top rainwater in storage tank and percolation to groupd water recharging will complete Approx. 5000Lit water is expected to store and 50,000 lit of water to be recharge to ground



# **Feasibility Study**

Name of the project	Type of project	Number of people served
Pandharpur Town – Sanitation plan with GIS study	Techno economic feasibility Study for Sanitation and Sewer management	More than 1 million



# **Achievements**

# **Achievements**

# Workshops

 No. of people served around 2000

#### Conferences

 No. of people served around 300

#### Trainings

 No. of People served – around 500

#### Projects

Other projects 10,000

 Pandharpur Project
 More than
 1 million



# **Achievements**

WATER

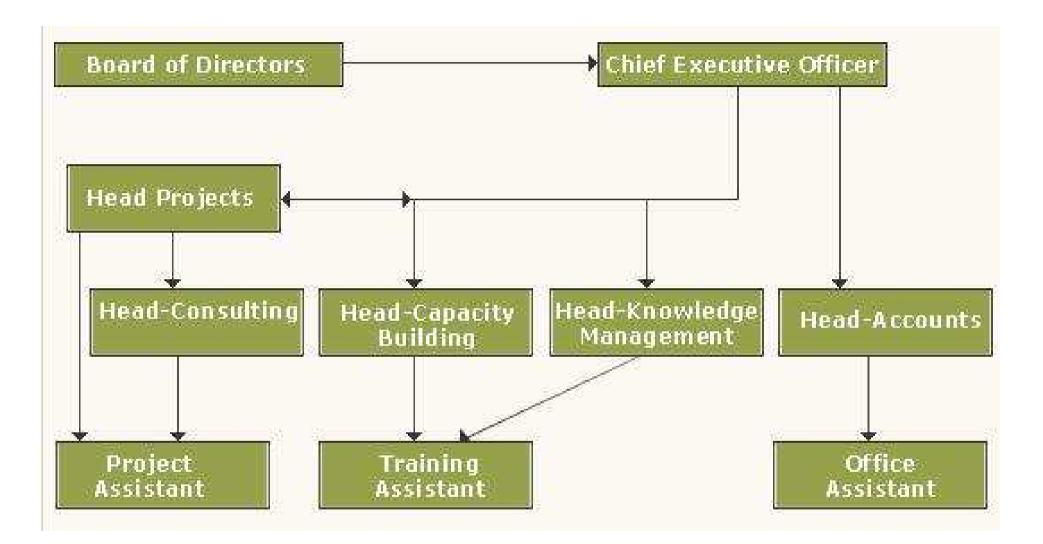
#### **ESF** scoops Water Unesco Award – Water Education







# **Organisation chart**





# Thank you from Team of ESF !





#### Contact:



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