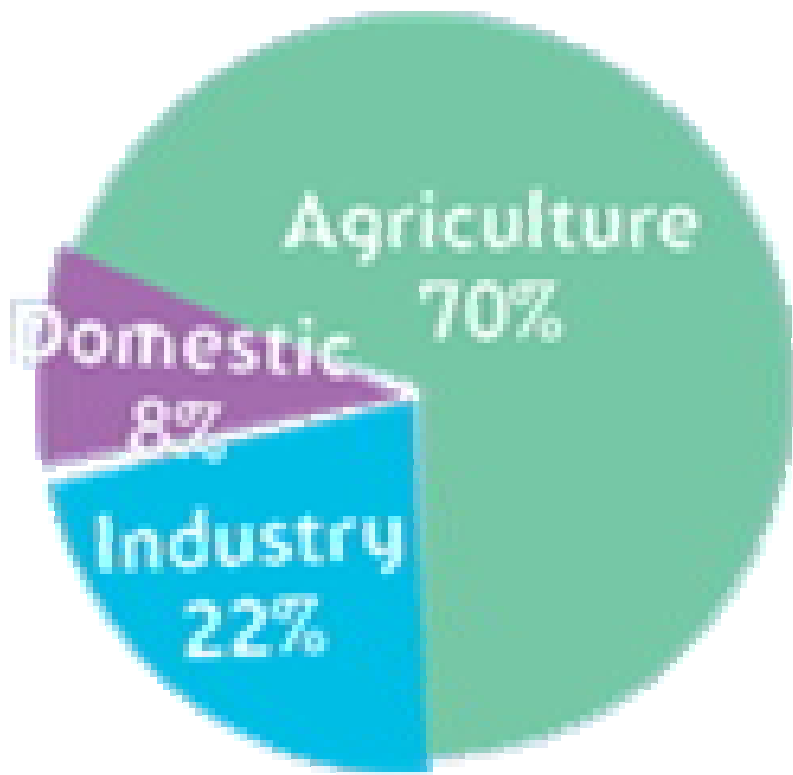


India

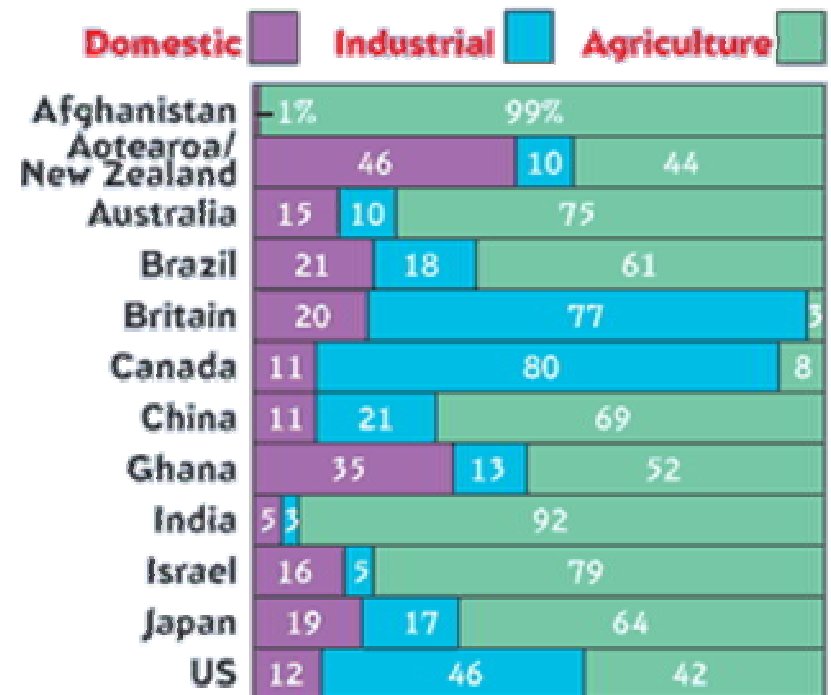
The water challenge

S.Vishwanath

World water use²



Water use, selected countries, 2000³





.....and provides for the poor

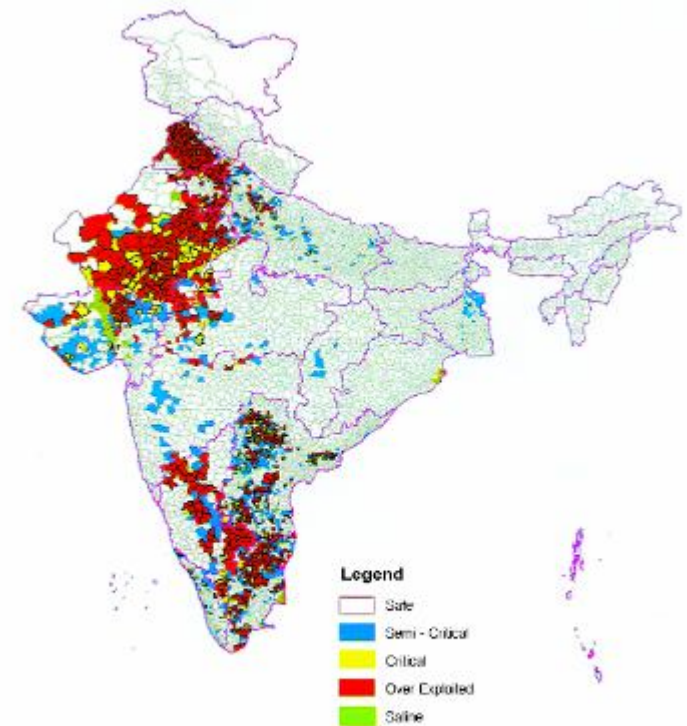




Context: The “looming” crisis is now here

Nation-wide 29% of the blocks are critical, semi-critical or over-exploited

In some states as high as 75%



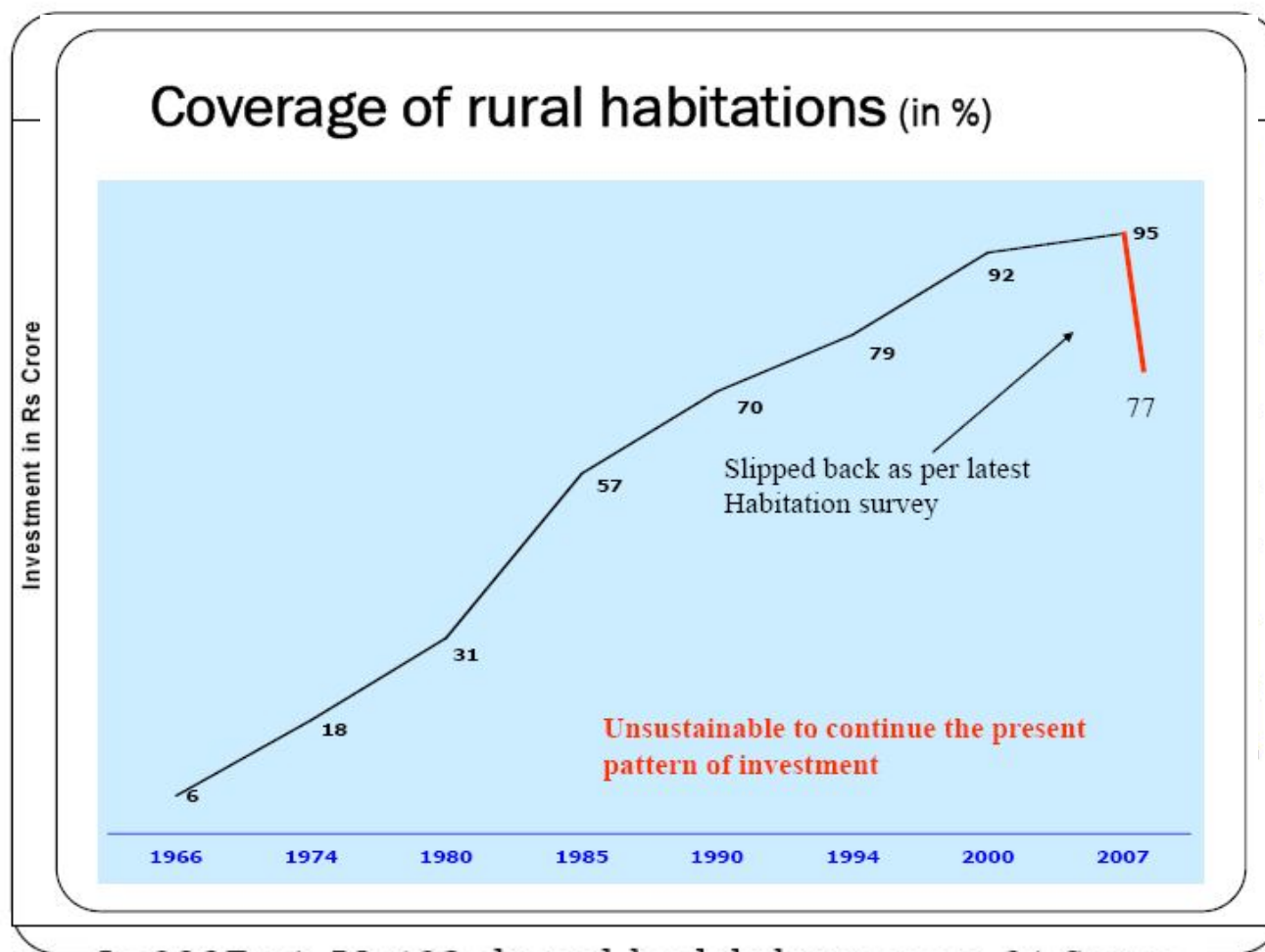
Source: Dynamic Groundwater Resources of India (as on March 2004), Central Ground Water Board, Ministry of Water Resources, 2006.

Context: Particularities of GW use in India

- **In volume and number of users, India is the largest gw user in the world**
- **65% of irrigated area (85% of all area added since 1970) depends on groundwater**
- **85% of rural water supply schemes**
- **Environmental services: base-flows of rivers; wetlands, community water bodies**

Intensive Use/Critical Dependence

Context: Need for action



b)

In 2007 : 1,59,429 slipped-back habitations in 21 States



Photo : Norma Angelica Hernandez Bernal

Law of the jungle



Old forest release water or do they?



'Tanks'



Farm ponds



Open wells





Photo courtesy: Shree Padre





Drinking water supply standards

Purpose	Quantity (lpcd)
• Drinking	3
• Cooking	5
• Bathing	15
• Washing utensils	7
• Ablution	10
• Total	40

The Dublin Principles

- **Principle No. 1 - Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment**

Since water sustains life, effective management of water resources demands a holistic approach, linking social and economic development with protection of natural ecosystems. Effective management links land and water uses across the whole of a catchment area or groundwater aquifer.

- **Principle No. 2 - Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels**

The participatory approach involves raising awareness of the importance of water among policy-makers and the general public. It means that decisions are taken at the lowest appropriate level, with full public consultation and involvement of users in the planning and implementation of water projects.

- **Principle No. 3 - Women play a central part in the provision, management and safeguarding of water**

This pivotal role of women as providers and users of water and guardians of the living environment has seldom been reflected in institutional arrangements for the development and management of water resources. Acceptance and implementation of this principle requires positive policies to address women's specific needs and to equip and empower women to participate at all levels in water resources programmes, including decision-making and implementation, in ways defined by them.

- **Principle No. 4 - Water has an economic value in all its competing uses and should be recognized as an economic good**

Within this principle, it is vital to recognize first the basic right of all human beings to have access to clean water and sanitation at an affordable price. Past failure to recognize the economic value of water has led to wasteful and environmentally damaging uses of the resource. Managing water as an economic good is an important way of achieving efficient and equitable use, and of encouraging conservation and protection of water resources.

The Bellagio statement

- **The Bellagio Statement** was formulated by the Environmental Sanitation Working Group of the [Water Supply and Sanitation Collaborative Council](#) in 2000:^[4] Principals follow:
- Human dignity, quality of life, and environmental security should be at the centre of the new approach, and be responsive and accountable to needs and demands in the local setting.
- In line with good governance principles, decision-making should involve participation of all stakeholders, especially the consumers and providers of services.
- Waste should be considered a resource, and its management should be holistic and form part of integrated water resources, nutrient flows and waste management processes.
- The forum for resolving environmental sanitation problems should be kept to the minimum practicable size (household, community, town, district, catchment, city) and wastes diluted as little as possible.

So how is it different from conventional wat/san?

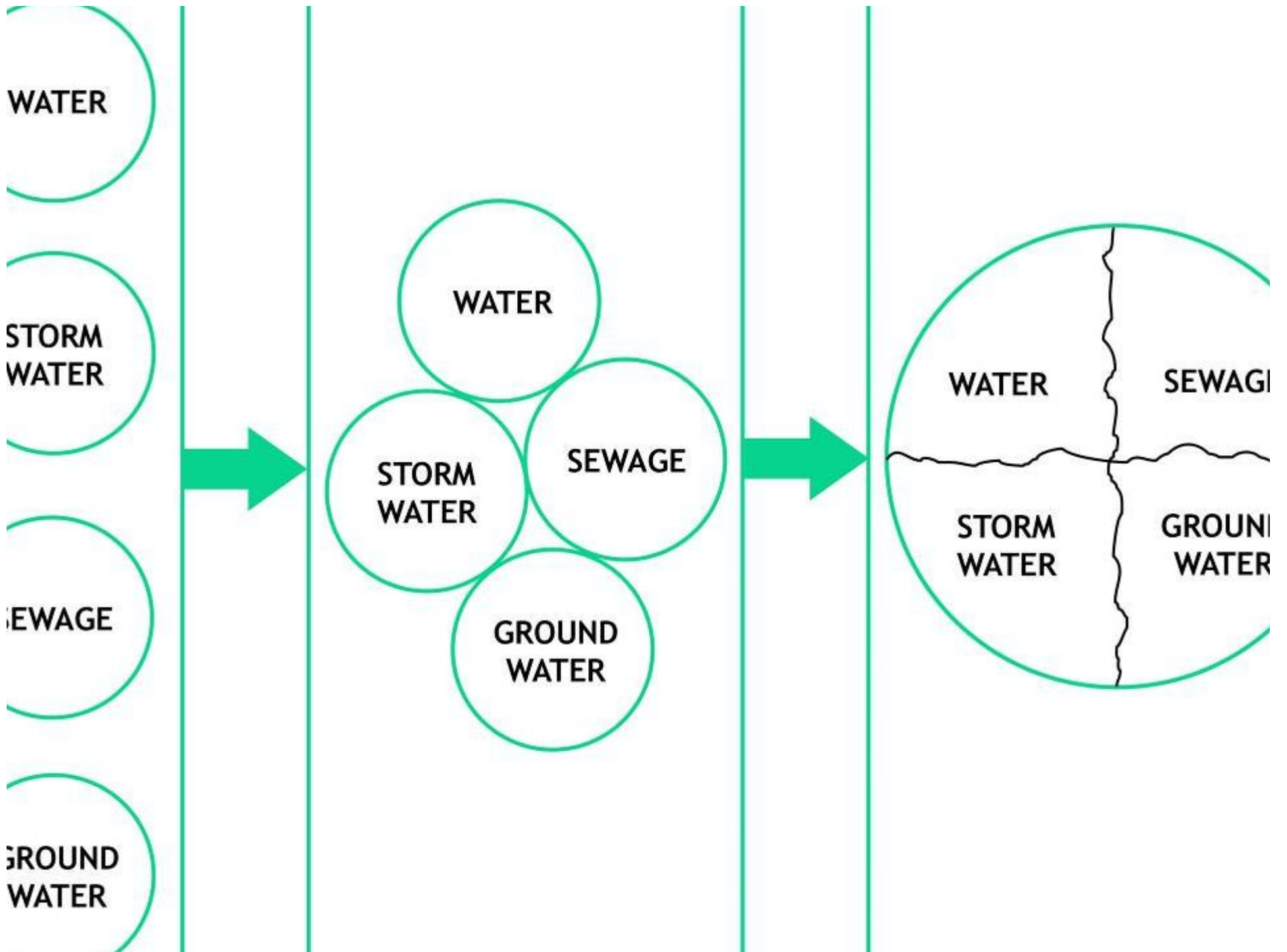
- IUWM professes
- Social
- Technical
- Institutional
- Financial
- Legal
- Environmental
 - Integration. The **STIFLE** model ...

Social integration **Stifle**

- A commitment to the same level of service to all sections of the population for water and sanitation- a **universalization** and rights based approach (water as a human right)
- A participatory policy which is pro-poor
- A participatory approach to project planning, implementation and maintenance
- A ward level discussion, understanding and management of the water and sanitation situation of the entire town and the ward in particular

Technical Title

- A systems design appropriate to be understood and managed by the institution empowered to run it
- A dedication to maintenance as much as to capital investments
- Appropriate
- Leak reduction
- 24/7 water supply ??



Institutional

stifle

- The Governance of water is everything and democratic governance is the best
- The transfer of power and creating the ability of managing water supply to the urban local body
- Appropriate strengthening of the human resource and other capabilities to plan, implement and manage wat-san systems
- A grievance re-dressal mechanism which is swift, capable and effective and which listens and responds

Financial

stiFle

- A financially sustainable model pre-agreed with citizens and state at a higher level
- A definite guideline on cost recovery – polluter pays, cross subsidy, increasing block tariff, lowest production cost, marginal cost pricing –all understood, discussed and agreed with ALL stakeholders
- Volumetric metering and pricing

Legal

stifLe

- A legal framework which assure wat-san services as a right – both in quantity and quality terms.
- A method of managing groundwater
- Catchment management framework
- Rights and responsibilities clearly defined of all stakeholders

Environmental stiflE

- A water resource protection and sustainability plan
- A pollution management plan
- An access to a level of service and a quality of service to citizenry
- Water as a bio-diversity medium recognized and acted upon