

Urban Wastewater: Livelihoods, Health & Environmental Impacts in India

Winrock International India & Partners

Supported by:

**International Water Management Institute,
Colombo**



Project Objectives...

- ◆ **Extent and nature of impacts of wastewater use in agriculture on the livelihoods and health of the dependent communities and on the environment**
- ◆ **Contribute to the existing research/knowledge on urban wastewater use for agriculture in India**
- ◆ **Sensitize stakeholders on the impacts of urban wastewater use and possible ways of mitigating negative impacts**



Urban Wastewater:

Key Positive Aspects

- ◆ **Assured supply and increasing**
- ◆ **Enormous pro-poor livelihood potential especially in urban/ peri-urban agriculture**



Urban Wastewater:

Key Negative Aspects

- ◆ **To sustain urban water supply, unsustainable groundwater mining stretching into rural hinterland (urban-rural linkages)**
- ◆ **Treatment capacity is 24.2% of wastewater generated (23 metropolitan cities generate 59% of total volume of wastewater)**
- ◆ **Health & Environmental impacts can offset livelihood opportunities**



Urban Growth

Year	No. of UA's with million + population	Population (in million)	Share in total urban population (%)
1901	1	1.51	5.8
1911	2	2.76	10.7
1921	2	31.13	11.1
1931	2	3.41	10.2
1941	2	5.31	12.0
1951	5	11.75	18.8
1961	7	18.10	22.9
1971	9	27.83	25.5
1981	12	42.12	26.4
1991	23	70.98	32.6

Urban Growth

- ◆ **No. of metropolitan cities from 1 in 1901 (Calcutta) to 5 in 1951, 23 in 1991 and 35 in 2001.**
- ◆ **Concentration of population in these cities grown steadily during 1901-2001, but substantial increase during 1981-91 (26.4% to 32.6 % of urban population)**



Project Activities...

- ◆ **Case studies (Kolkata, Kanpur, Delhi, Ahmedabad)**
- ◆ **Consultations with local policy makers / planning authorities – includes Consultative & Action Group meetings (practitioners / academia)**
- ◆ **Synthesis document (case study results / recommendations)**
- ◆ **National assessment (secondary data / national level policies and guidelines)**



Our Partners...

- ◆ **Delhi** – Spatial Decisions
- ◆ **Ahmedabad** – Youth for Unity and Voluntary Action & Institute for Studies and Transformation
- ◆ **Kanpur** – Ecofriends & BAIF
- ◆ **Kolkata** – Jadavpur University
- ◆ **National Assessment** – Youth for Unity and Voluntary Action, Mumbai
- ◆ **Accredited laboratories for testing samples of vegetables, agri produce, wastewater, drinking water, groundwater**