

# Lecture 7:

## Themes in Indian Environmentalism - IV

Course: Environment and Politics in India

# ENVIRONMENT AND DEVELOPMENT

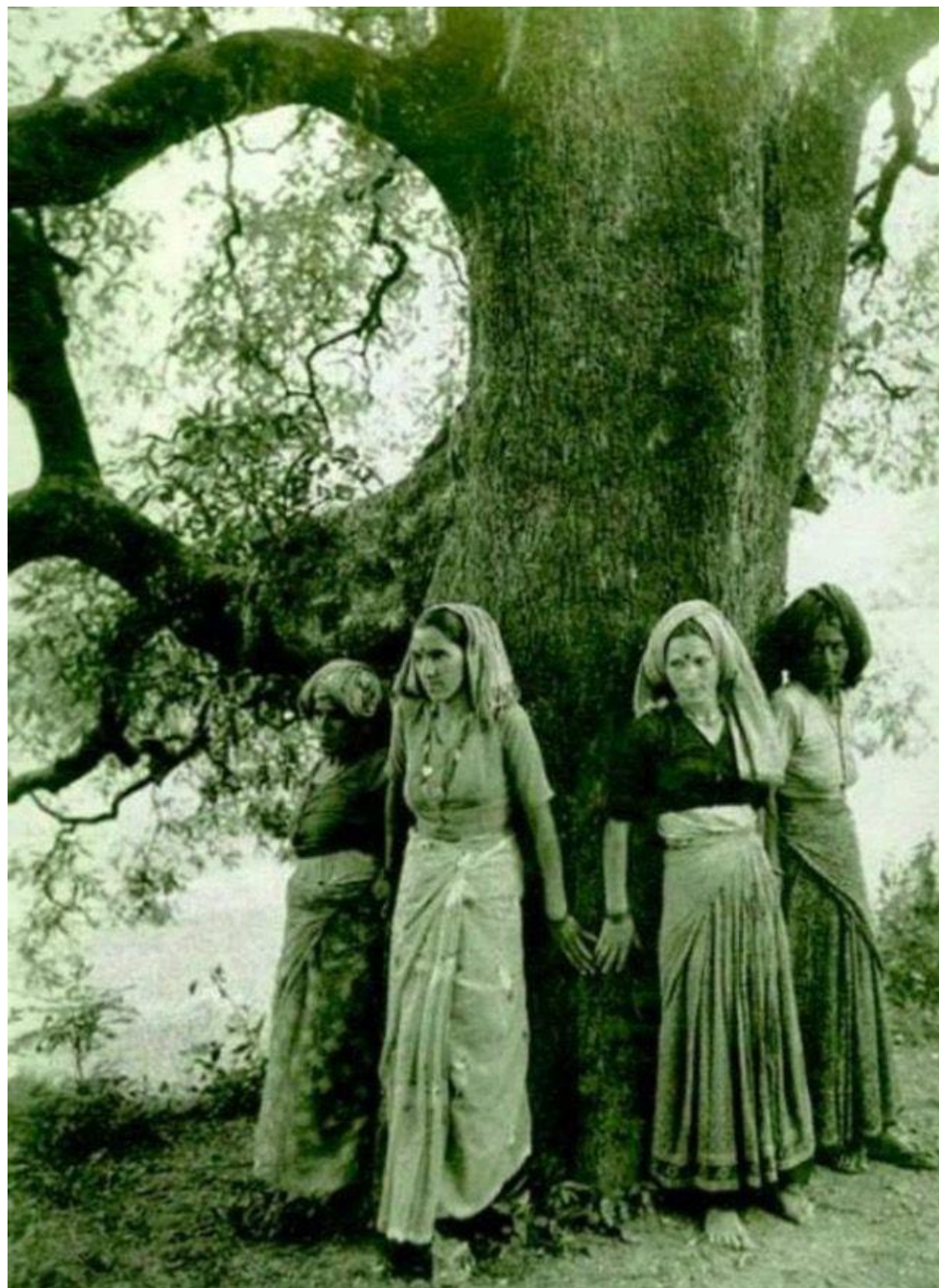
What is the relationship between 'DEVELOPMENT' and the environment?

How do people relate to 'development' projects?



IF THE TREES ARE SAVED IN EXCHANGE  
OF OUR HEAD. IT WILL BE CHEAP TRANSACTION  
"AMRITA DEVI BISHNOI"

TO SAVE TREES  
363 BISHNOI PEOPLE SACRIFICED THEIR LIVES IN 1730 AD IN VILLAGE  
KHEJARLI, JODHPUR





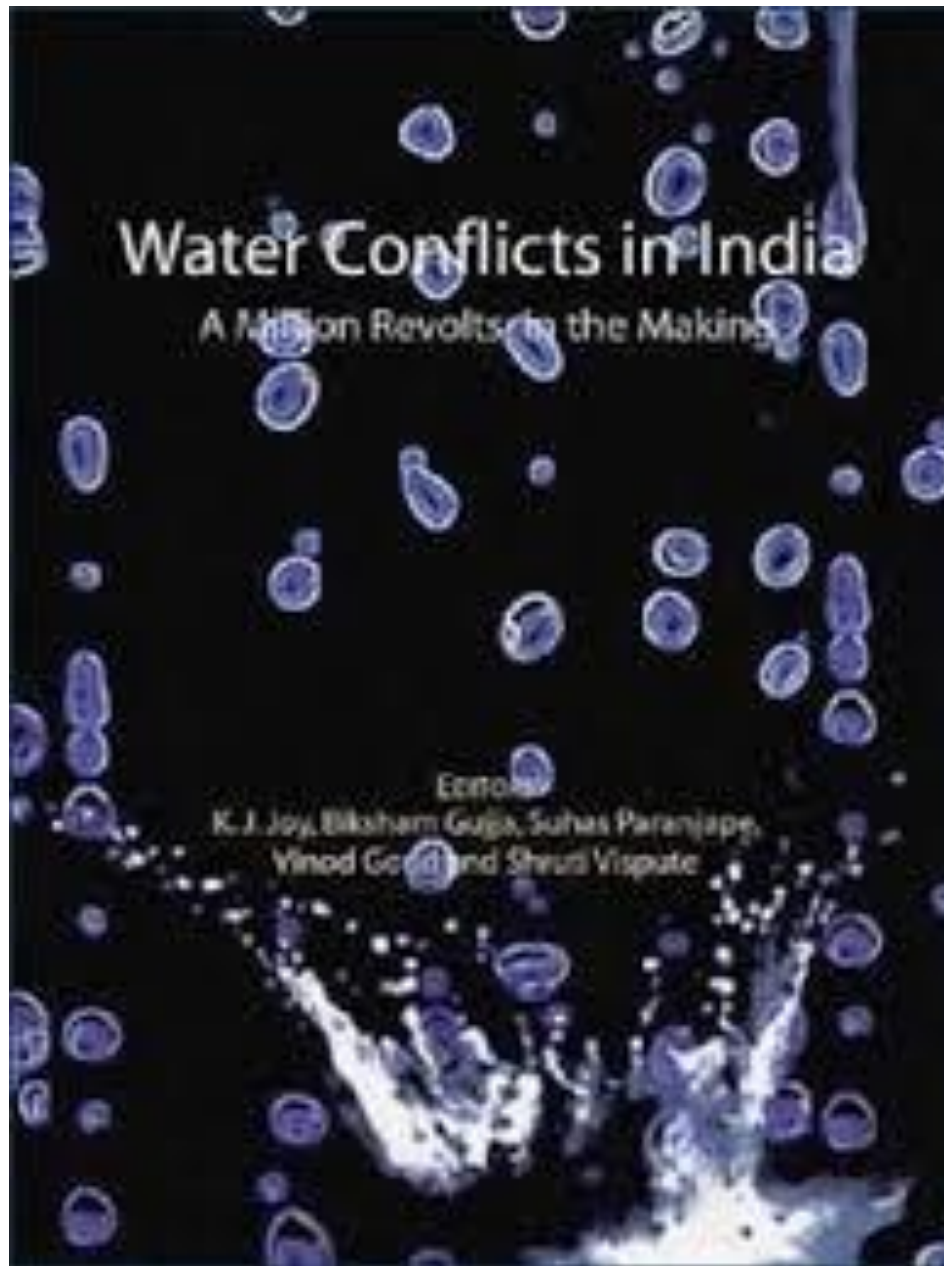


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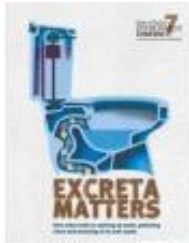
63 Case  
Studies from  
India



# Water

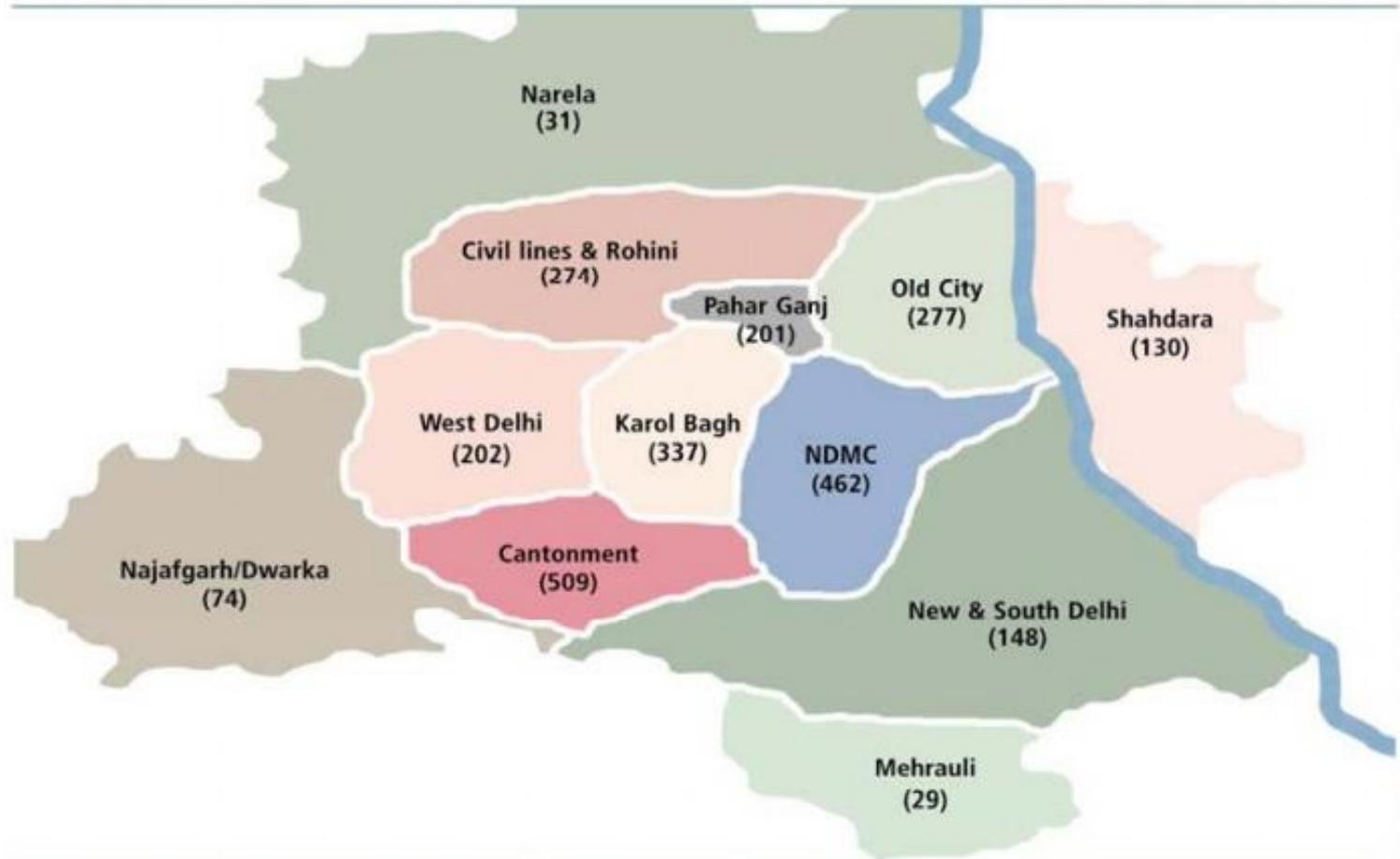
Various elements of water conflicts/alienation from water resources:

- Contending water uses: Drinking/agriculture/industry, wetlands/agriculture. Lack of access to water caused by competitive users. Excess extraction by industry
- Equity, access, allocation: Conflicts between same use, different users. Caste/Class/Gender in water use patterns
- Conflicts around water quality: Lack of access to clean water downstream of major industries/sewage treatment plants
- Sand mining: Indiscriminate sand excavation from riverbeds
- Micro-level disputes: Within a village/community/tank/tubewell
- Dams and displacement: Hugely documented
- Transboundary water conflict: Tamil Nadu/Kerala, Tamil Nadu/Karnataka, Delhi/Haryana
- Privatisation



# = 'Official inequity'

## DELHI: CAPITAL INEQUITY (IN LPCD)



LPCD: Litres per capita daily; NDMC: New Delhi Municipal Corporation

Source: Sunita Narain et al 2007, *Sewage Canal: How to Clean the Yamuna*, Centre for Science and Environment, New Delhi

# Water

Water privatisation: Involvement of private actors in infrastructure/distribution/pricing. Commodification of water.

FROM 'scarce' and 'sacred' TO economic product ('tradable', 'profitable', 'owned', 'marketed', 'sold').

EXAMPLES: Urban and Environmental Infrastructure Facility Project, Karnataka Urban Development and Coastal Environment Management Project (ADB funding, with strings attached), Madhya Pradesh Integrated Water Resources Management Strategy

- Orissa Lift Irrigation Corporation. World Bank involvement. Creation Of *Pani Panchayats* -> 10 times increase in price
- Sectors involved: BOTH urban and rural. BOTH distribution and sanitation/sewage treatment.
- Likely to impact POOR: Slum dwellers (10-50% of city population), landless.
- Radius Water Ltd. Case: 24 km stretch sold. Restrictions on water use, tubewells, handpumps, fishing, drinking, bathing...



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## Outlook



India's first ever 'water privatisation' scheme looks successful, but no one asked the small fish

BHAVDEEP KANG



JITENDER GUPTA



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For some, he's a path-breaking entrepreneur. For others, he's a conscienceless violator of human rights. Kailash Soni is ceo of Radius Water Limited and author of India's first-ever private water supply scheme, in Chhattisgarh's Durg area. His is a "success" story that has inspired a host of similar projects across the country.

Soni has shown that private entrepreneurship in water supply can be efficient, financially viable, cost-effective and environment friendly. Everybody's happy: Soni, who's making money, the industrialists who are assured a constant water supply, and the state of Chhattisgarh which is attracting industry because of the plentiful water and power. Everybody, that is, except for a few thousand villagers scattered along the banks of the river that Soni now "owns", by virtue of a build-own-operate-transfer (BOOT) agreement with the state government.

The villagers have lived beside the semi-perennial Sheonath river for centuries, through droughts and floods. It has watered their crops, supplied plentiful fish. Ghats, where village folk bathed and washed clothes, are dotted along the river. But now, the farmers and fishermen can only access the river at Soni's pleasure. A fact the villagers find hard to understand. After all, the river belongs to everybody, doesn't it?

Not anymore. The 23.6 km stretch of the river ceded to Soni through a 22-year (renewable) "concession" means he controls it, with a monopoly on the water supply in an 18 km-radius covering the Borai industrial area, close to the Durg township. Fishing is unauthorised activity here, so is

# Dams

## Issues

- Displacement
- Loss of livelihoods
- Loss of forestland/farmland
- Loss of biodiversity
- Siltation



# Urban pollution

Smog in North India:

- Vehicles
  - ☐ Traffic composition
  - ☐ Lack of public transport
  - ☐ Insufficient road space
- Fog in Winter
- Agricultural waste burning in Punjab/Haryana
- Crackers

Delhi: Most polluted city in India, 4<sup>th</sup> most polluted in the world.





**Table 1.** Comparison of Traffic Situation in Three Indian Cities (1993–4)

City	Contribution of Vehicular Pollution (%)	Vehicular Pollution (tpd)	% of total vehicular population in India	Cars as % of total traffic	2-whls As % of total traffic	% of travel trips by buses	% of total trips by suburban rail	Average peak hour speed (kmph)
Delhi	64	1,300	29.0	20	69	62	1.0	10–15
Mumbai	52	659.57	11.5	42	38	72	30.0	15–20
Calcutta	30*	300.62	8.3	40	44	34	20.0	14

Notes: 2-whls: two-wheelers  
 kmph: kilometre per hour  
 3-whls: three-wheelers  
 \* : for 1988–89  
 tpd: tonnes per day

Source: Compiled Data from Central Pollution Control Board and Tata Energy Research Institute

Year (as on March 31)	All Vehicles	Two-wheelers	Cars, Jeeps and Taxis	Buses	Vehicles	Goods
1951	306	27	159	34	82	4
1961	665	88	310	57	168	42
1971	1,865	576	682	94	343	170
1981	5,391	2,618	1,160	162	554	897
1991	21,374	14,200	2,954		1,356	2,533
1993 (P)	25,299	17,026	3,330		1,599	2,963

Note: Others Include tractors, trailers, three wheelers etc. P = Provisional.

Source: Transport Research Division, 1994, *Pocket Book of Transport Statistics*, Ministry of Surface Transport.

# Urban/Industrial pollution

Bhopal gas disaster and its lessons:

- Dangers to DEMOCRACY? Skewed decision-making processes. WHO decides WHERE a plant comes up, HOW it is run? NIMBY campaign.
- Critiques of 'development'. Need for an 'ethical', 'green' economy?
- Environmental governance:
  - Ecological viability and sustainability
  - Social equity
  - Democracy and public accountability

NEED for INSTITUTIONS, STRUCTURES and efficient REGULATORY frameworks.

# Different Aspects of Resource Alienation

## Common Property Resources (CPRs)

- Community assets. Institutional arrangements to manage/use natural resources
  - Community Grazing lands
  - Village Forests
  - Common water resources
- KEY cushion/survival, RISK-SHARING mechanism during stress (famines/crop failure)
- In dry ecosystems, KEY part of routine coping mechanisms
- MEANS to provide for food/fodder/water. 80-100% of poor households depend on CPRs for survival
- CPRs are steadily DECLINING



# Different Aspects of Resource Alienation

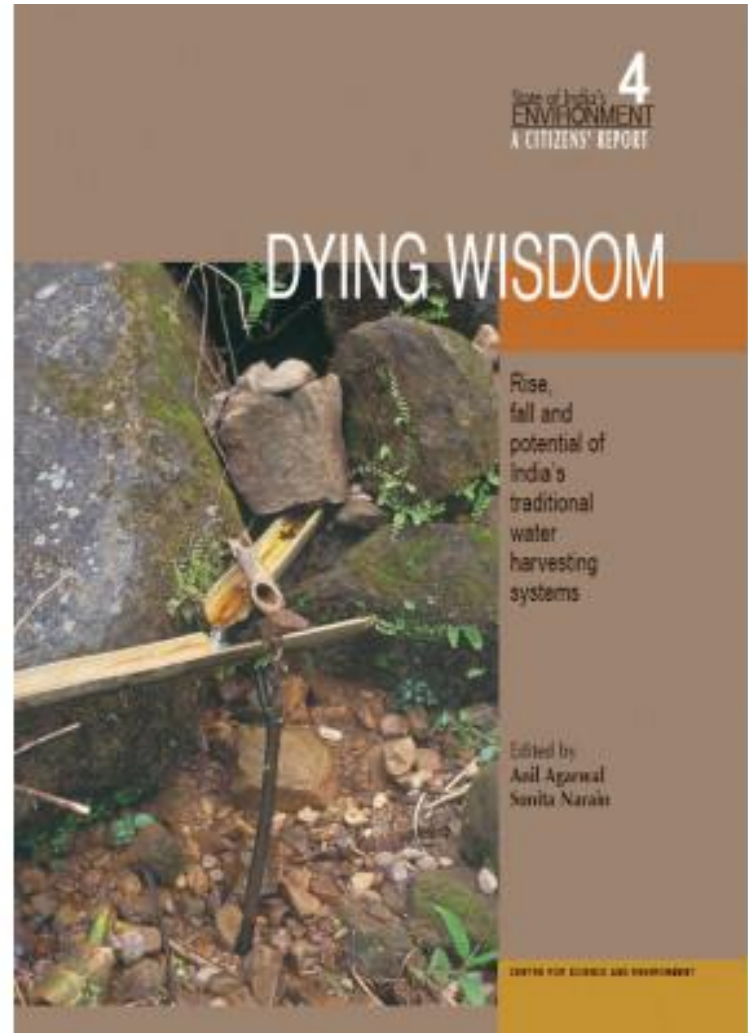
Rural transformation and its role in reducing CPRs:

- Manmade factors > Biophysical factors
- Increased technological and institutional intervention by the State (between 1950-1980)
  - Conversion of CPRs into private lands
  - Distance to market centres has reduced substantially
  - Irrigation facilities/mechanization/tractorization has increased
  - Land prices have increased significantly (3 fold)
  - Facilities for public relief, development aid
- Physical and market integration of dry areas
- Increased population pressure. Population density has doubled.

# Different Aspects of Resource Alienation

Rural transformation and its role in reducing CPRs:

- Changes in people's attitude to CPRs
  - Increased differentiation of the rural community. Fewer GROUP activities. Less rural cooperation.
  - Undermining of traditional water management/fodder and fuel gathering mechanisms.
  - Weakening mandate of the community, initiatives/decisions now managed by the State. Legal, administrative and fiscal measures of the State
- Changes in farming systems and resource use patterns. DE-EMPHASIZING the role of biomass.



# Different Aspects of Resource Alienation

## RESULT?

Dependence on CPRs reduced to one-fourth. Dependence on public relief INCREASED manifold.

1950s: 76-84% of households had CPRs as farm inputs

1982-84: 18-22% of households had CPRs as farm inputs

Socio-economic differentiation (along caste/class/gender):

- Decreasing availability: Growing degradation of resources in quality and quantity (water/soil/forests)
- Increasing inequality: Increasing appropriation by State/privatization

OVERALL impact: reduced availability for the poor/marginalized.

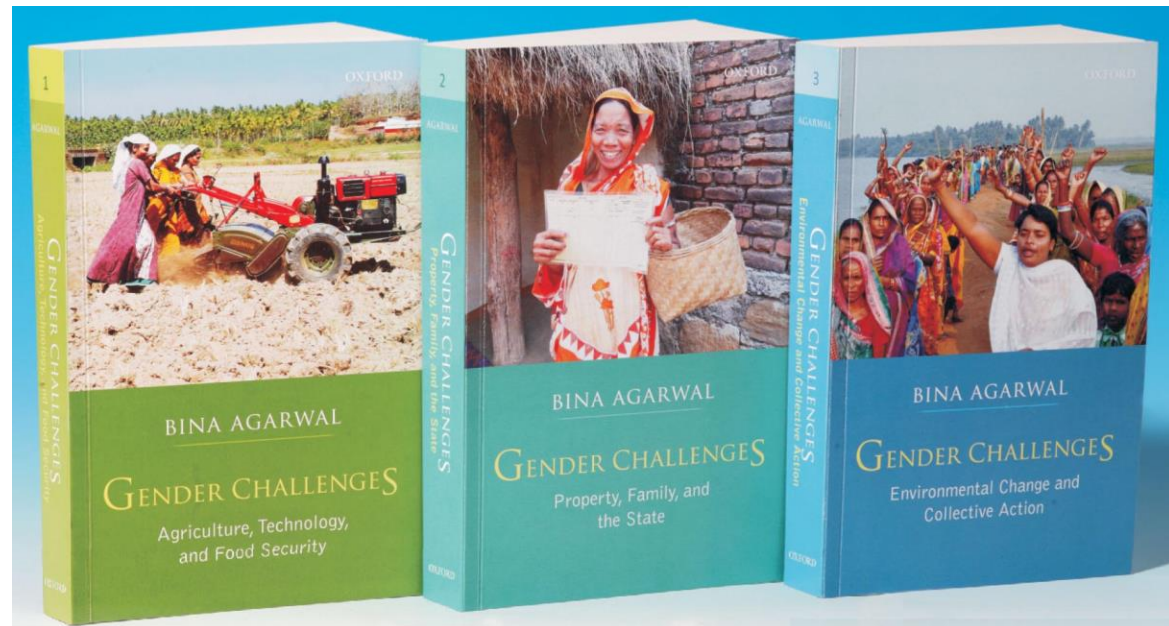
EXAMPLE: Green Revolution and Canals/Tube wells.



# Different Aspects of Resource Alienation

Gender, Poverty and Environment: Impact on women

1. Time: More time required to gather water/food/fuel/fodder
2. Income: Erosion of sources of livelihood
3. Nutrition: Reduced fuel -> Less/Stale/Uncooked/non-nutritious food
4. Health: More directly exposed to polluted water/soils
5. Social support networks caused by displacement/modernity
6. Knowledge systems: Degradation of material base of old medicinal systems



# Environment and Development

- ❑ Role of technology on social/ecological systems
- ❑ Alienation from natural resources (caused by 'development' models)
- ❑ Differentiated nature of alienation
- ❑ Presence/Absence/Need of regulatory frameworks/institutions

## OVERALL:

- ✓ 'Western' Models of environmentalism NOT suitable for India.  
Environment CANNOT be 'conserved' FROM the poor.  
Anil Agarwal: GDP versus GNP.
- ✓ Role of social/political/economic structures
- ✓ Problem of framing the 'sacred'.