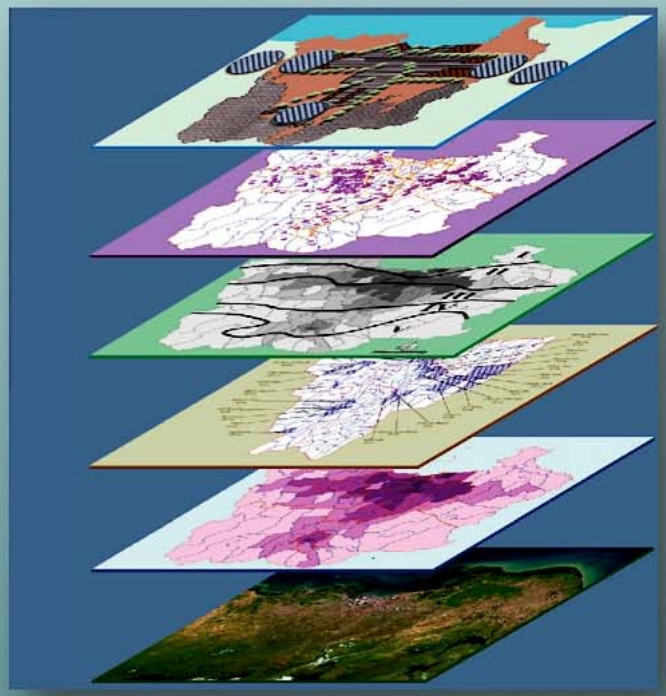
Expert Group Meeting (EGM) on Integrated Regional Development Planning
United Nations Centre for Regional Development, Nagoya, Japan , 28-30 May 2013

Integrated Regional Planning for Sustainable Development in Asia



Innovations in the Governance of Metropolitan, Rural-Urban, and Transborder Riparian Regions

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IRDP and Sustainable Development

The Future We Want – UN Rio + 20 (2012) calls for "holistic and integrated approaches to sustainable development"

We acknowledge that democracy and good governance are essential for sustainable development, including sustained and inclusive economic growth, social development, environmental protection and the eradication of poverty and hunger.

Questions to be addressed

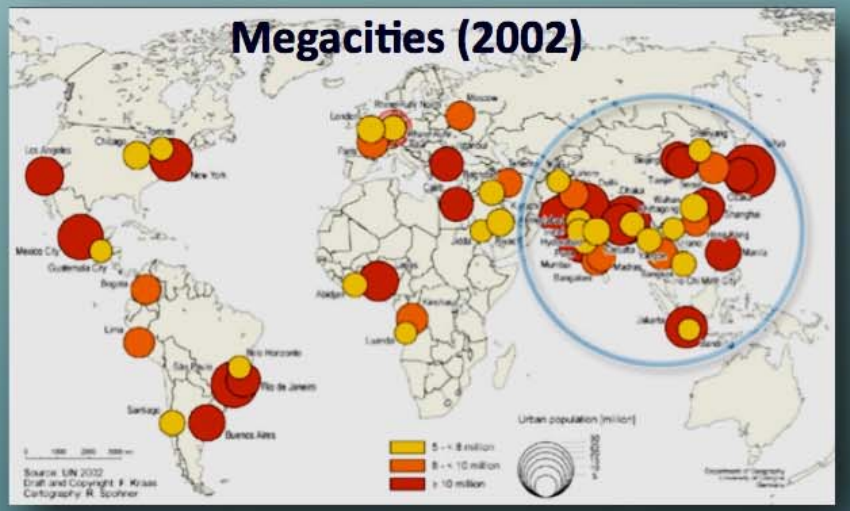
1. How can Integrated Regional Development Planning contribute to sustainable development?
2. How can IRDP build on the basis of participatory governance?
3. How can IRDP work vertically from smaller to larger spatial scales of "problem sheds" from neighborhood/community to city, region, nation and across borders?
4. How can IRDP work horizontally across political/administrative borders?

Three regional contexts

1. Extended Metropolitan Regions – the Jabodetabek experience
2. Rural-Urban Regions – Nepal's Rural-Urban Partnership Programme
3. Transborder Riparian Regions – the case of the Mekong River and the MRC

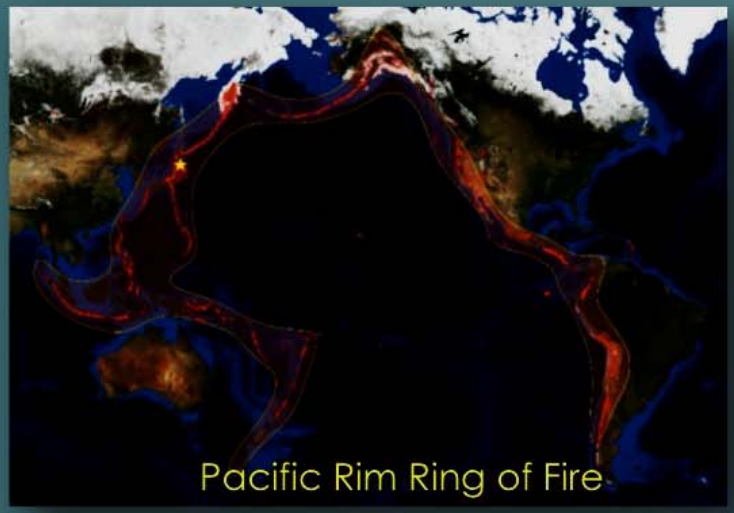
1. Extended Metropolitan Regions

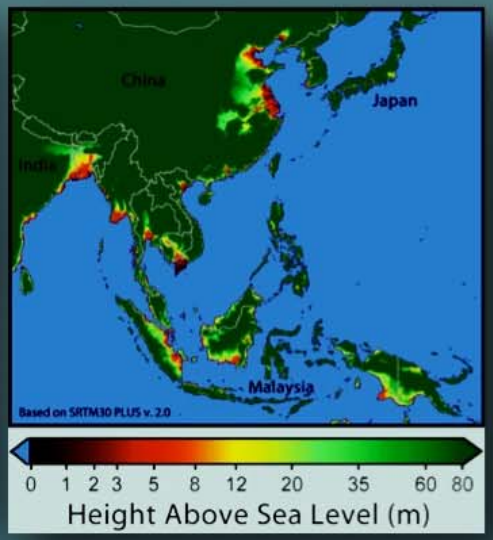
- 2000-2050 – Asia's urban population will add 2 billion people
- Focus on extended metropolitan regions (EMRs) > 10 million population

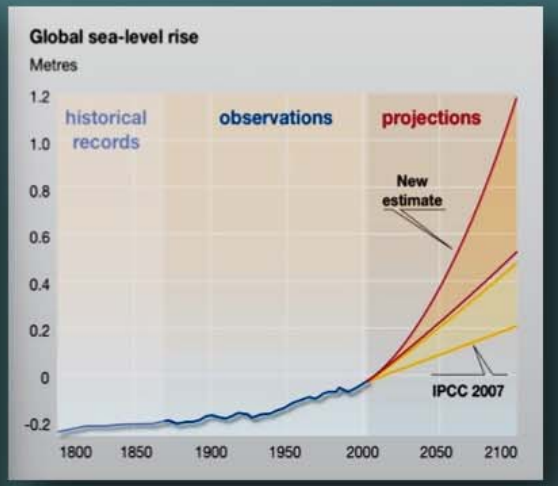


Increasing environmental risks

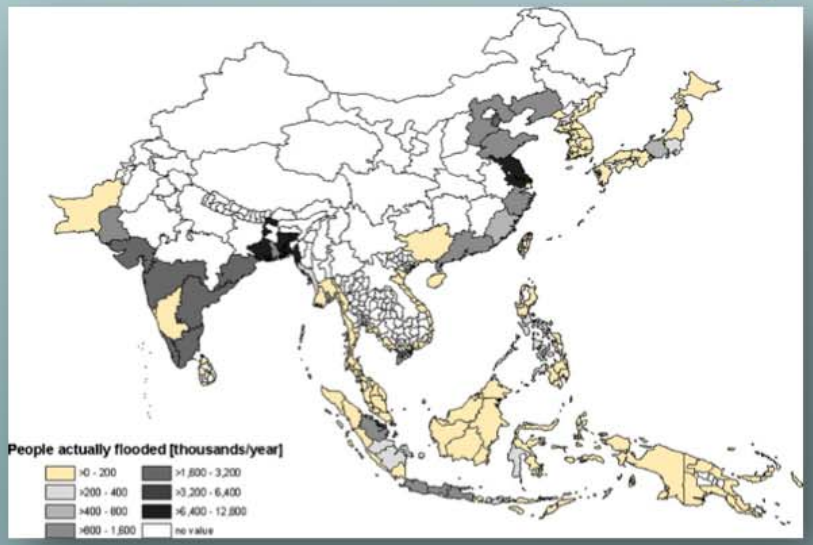
- Coastal orientation of urbanization
- Ecological footprint of cities is global (including rural regions)
- High impact of disasters on EMRs

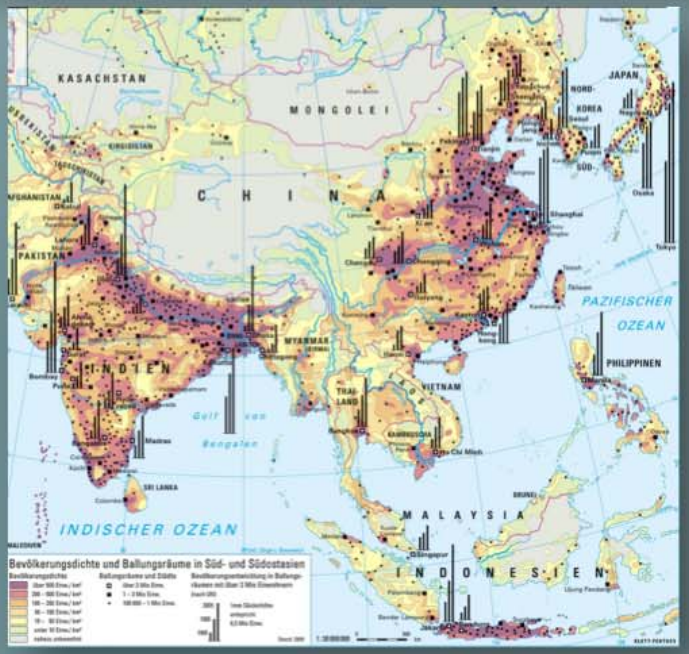






Urban Floods Increasing in Asia





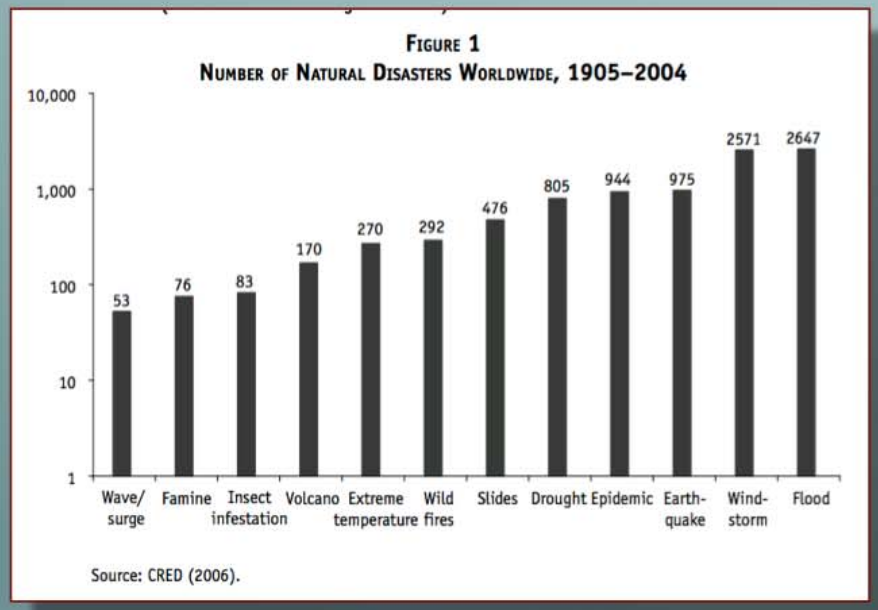
Natural Disaster Flood Risk, Largest Cities in the World (2013)

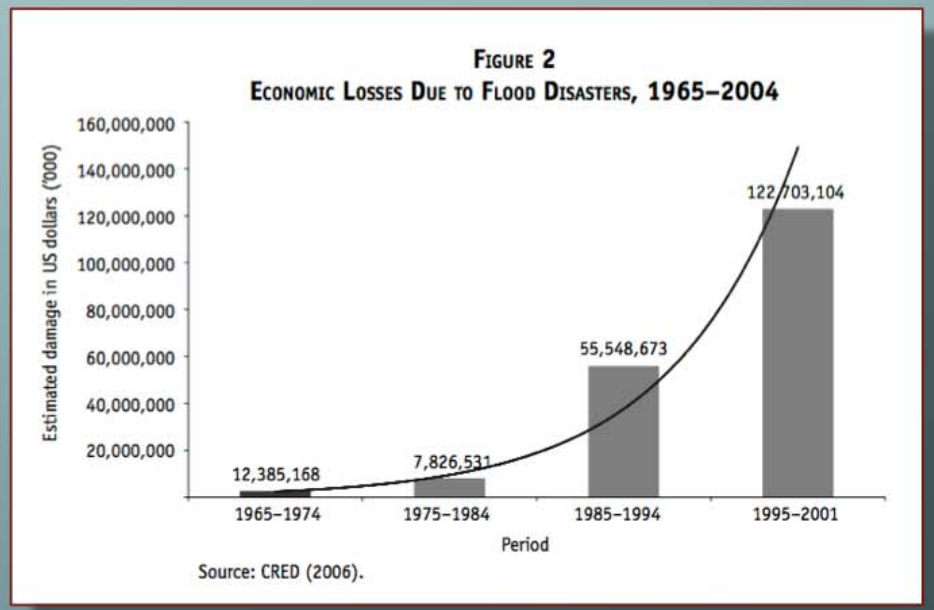
City	Population	Risk of Flooding
Tokyo	32	Very well prepared
Seoul	26	Could be better prepared
Jakarta	23	Critically unprepared
Delhi	22	Critically unprepared
Mumbai	21	Critically unprepared
Mexico City	20	Could be better prepared
São Paulo	20	Could be better prepared
New York	20	Could be better prepared
Osaka	17	Very well prepared
Shanghai	17	Critically unprepared
Manila	16	Critically unprepared
Hong Kong- Shenzhen	16	Critically unprepared
Los Angeles	15	Could be better prepared
Kolkata	15	Critically unprepared
London	15	Could be better prepared
Moscow	15	No high risk
Cairo	14	Critically unprepared
Buenos Aires	13	Could be better prepared
Dhaka	13	Critically unprepared
Beijing	13	Critically unprepared
Karachi	12	Critically unprepared
Rio de Janeiro	12	Could be better prepared
Paris	10	Could be better prepared

Critically Unprepared EMRs total population 182 million

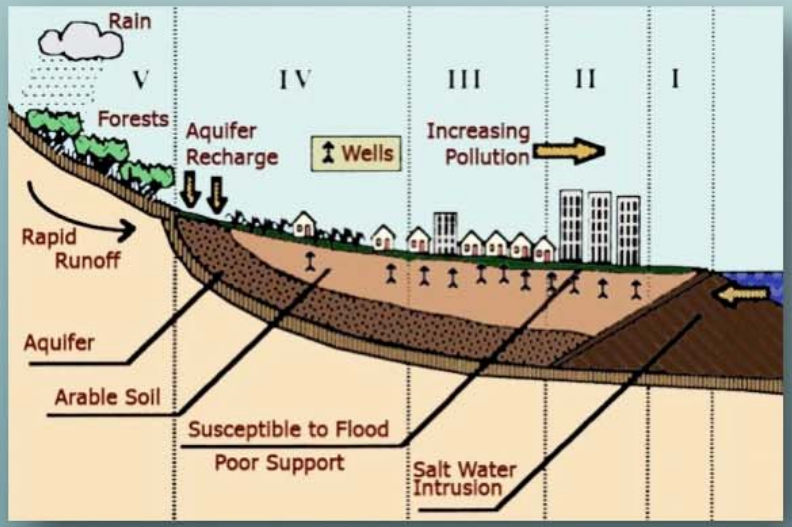
Source: GreenAsh (2013), Natural Disaster Risk Levels of the World's Largest Cities.

Frequency and Costs of 'Natural Disasters'





Flooding and the City Region Ecology



- Global sea rise
- Tsunami
- Extreme weather events

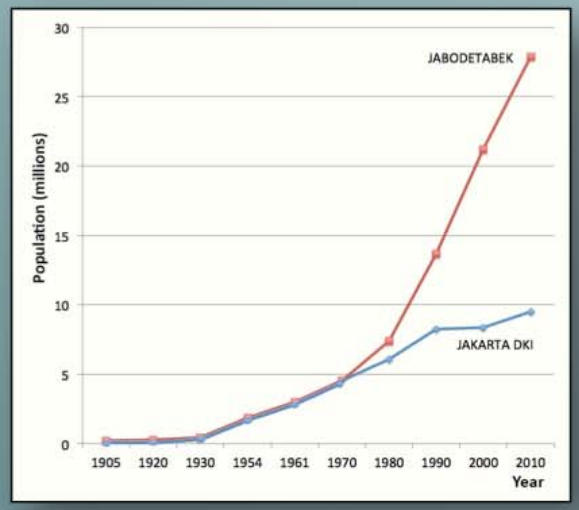
- ☑ Land subsidence from over drawing of groundwater;
- ☑ Deforestation in upland areas;
- ☑ Massive increases in non-porous ground cover;
- ☑ Growth of informal settlements along major waterways;
- ☑ Large-scale landslides from heavy rains; and
- ☑ Infrastructure failures.

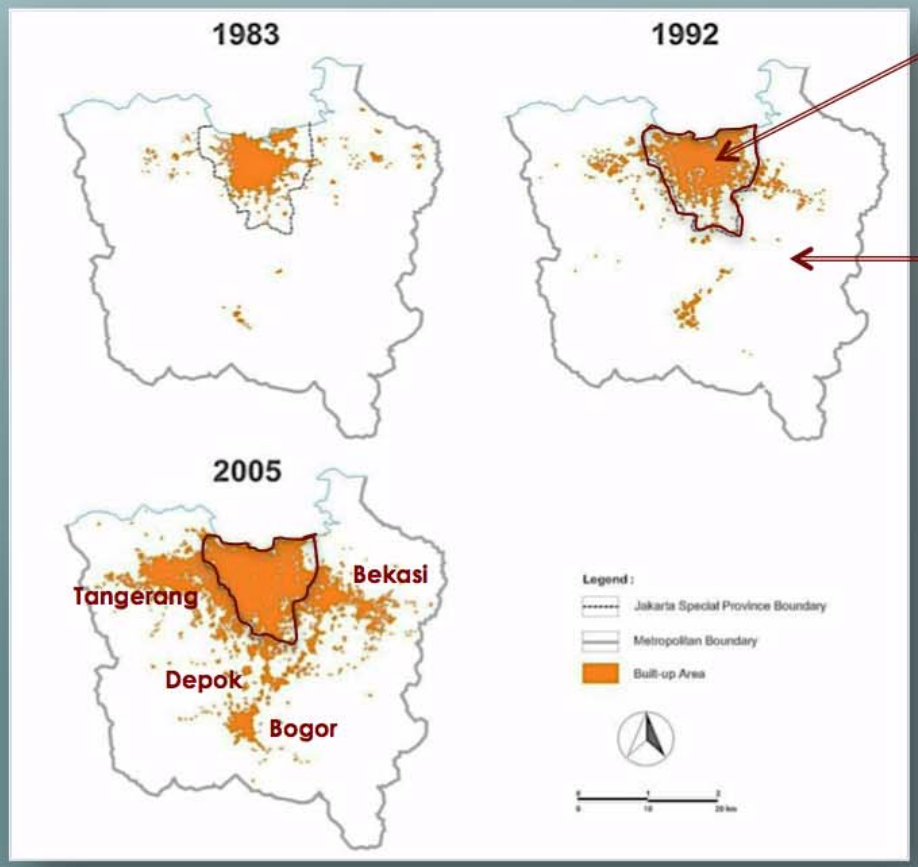
Tremendously rising human and economic costs of natural disasters impacting high concentrations of people

Current Practices in Water Governance

The Jakarta Experience

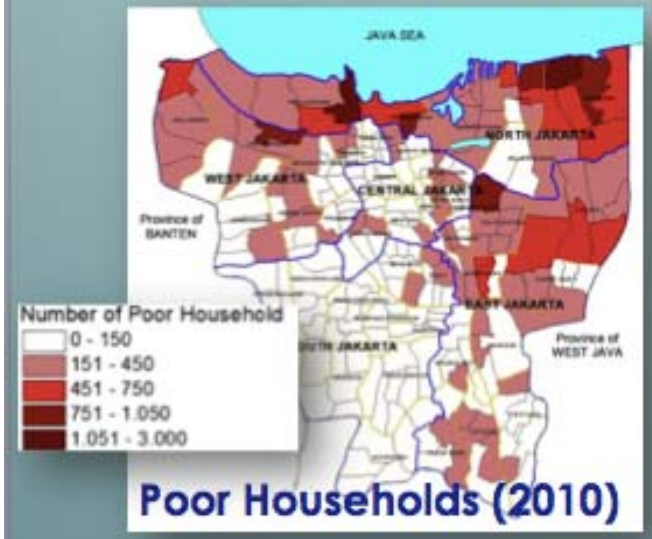
Jakarta becomes Jabodetabek-Punjur EMR





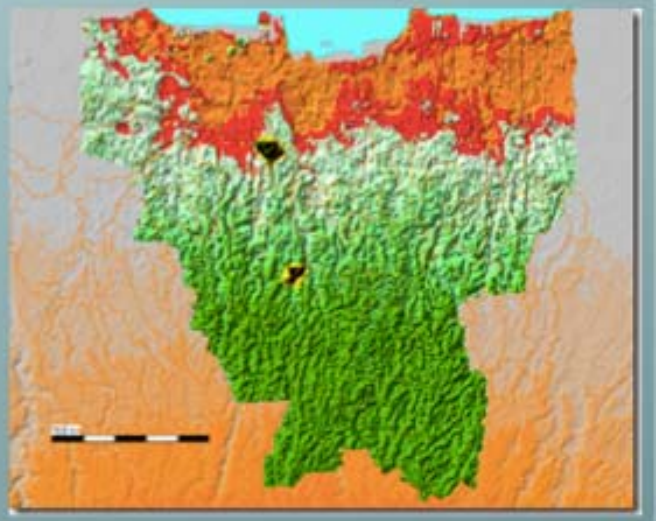
The Age of Chronic Flooding in Jakarta

2007 floods claimed 80 lives and left 500,000 displaced from homes
2013 flood claimed 57 lives and cost estimated $3 billion



Poor Households (2010)

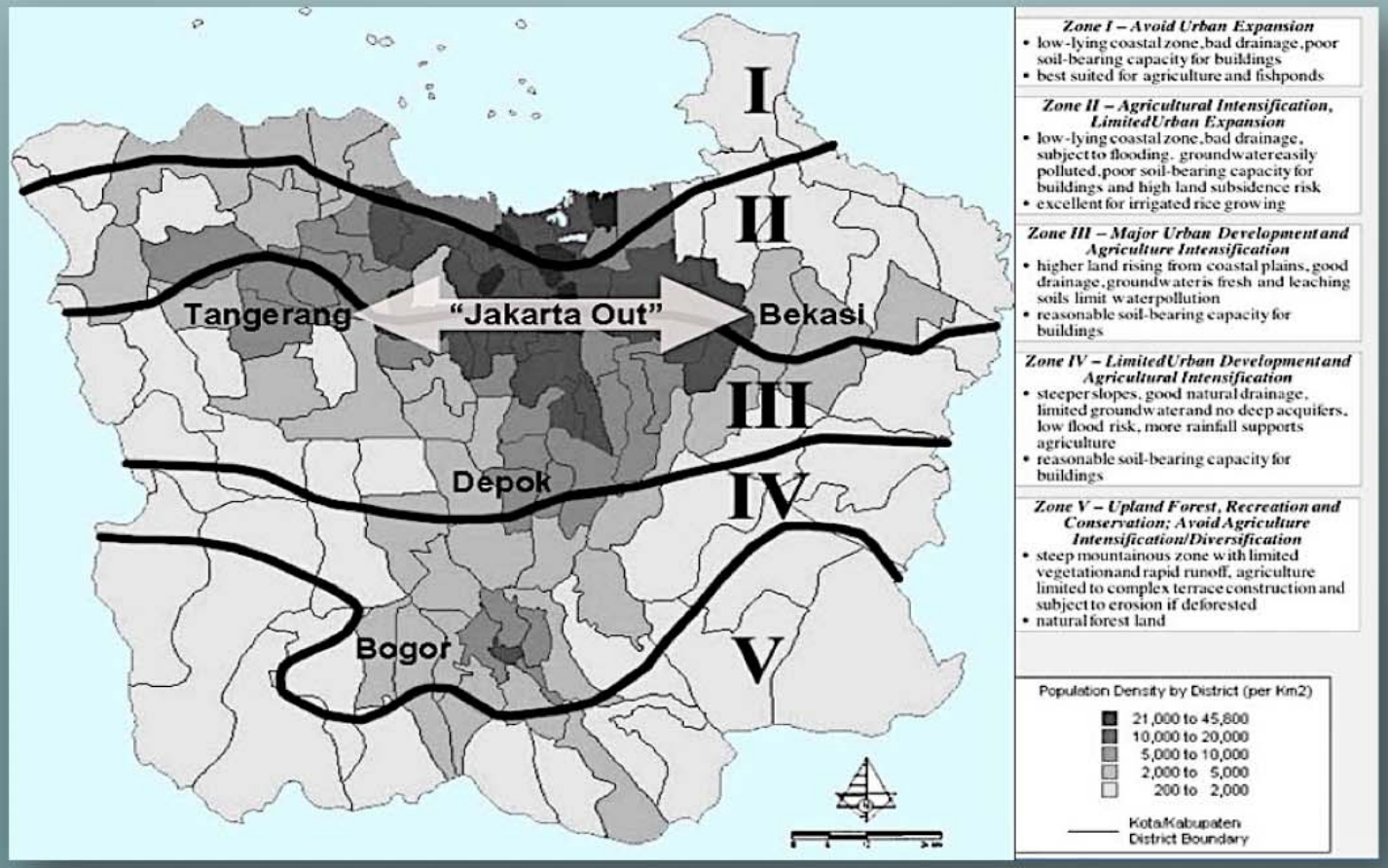
- Sea rise
- Land subsidence
- Deforestation
- Deteriorating rivers & canals
- Unrestrained land development
- Increasing population



2007 Tidal Flood

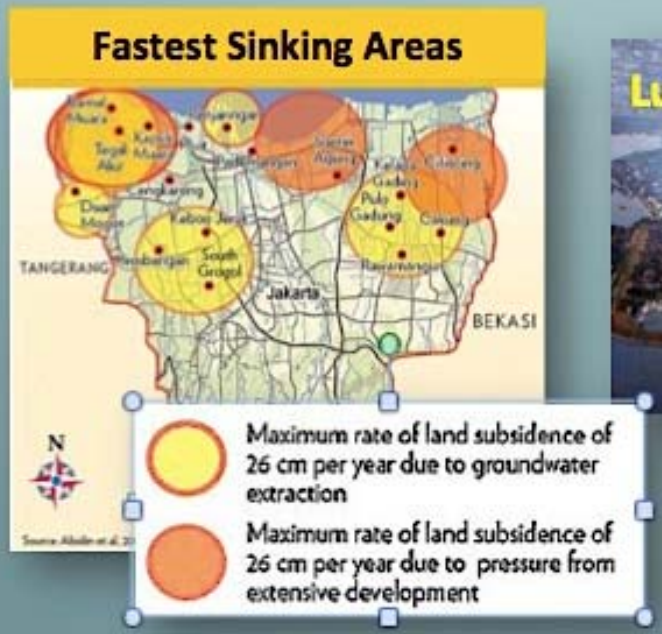
- 20-30 % of Jakarta population lives in slums with significant flood risk. Only 35 percent of Jakarta's population has direct access to potable water
- 32 percent of dwelling have a per capita living space of less than seven square meters.
- Most do not have legal title to the land; threats of demolition and removal are also ever present.

Zones Proposed to Guide Urban Expansion (1984) Versus Actual Population Distribution 2000



New Era of Mega-Projects 1985-present

In just one year, 2009, mega-projects in Jakarta jumped by 30%



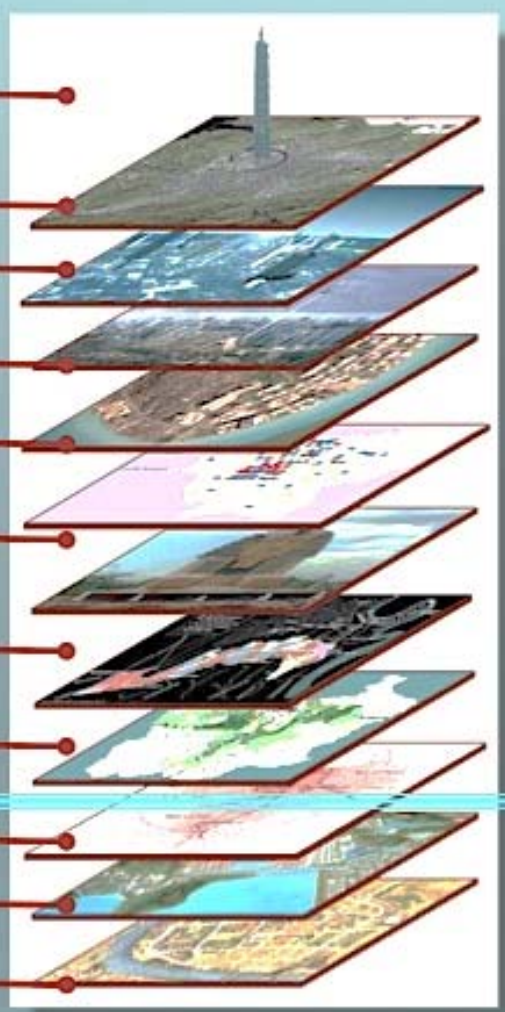
New Towns 1980-2000

- 1989: development of industrial estates by private sectors liberalized following the deregulation in banking system
- 1993: development permits for large-scale housing projects simplified
- 1995 and 2001 Jabodetabek saw the construction of 25 new town development projects ranging from 500 to 6,000 hectares each.
- Commuting trips from the surrounding areas to DKI Jakarta increased about 10 fold from 1985 to 2002. About 1 million people now commute into Jakarta's urban core every day

Layers of Built Environment
Jakarta from the 1980s

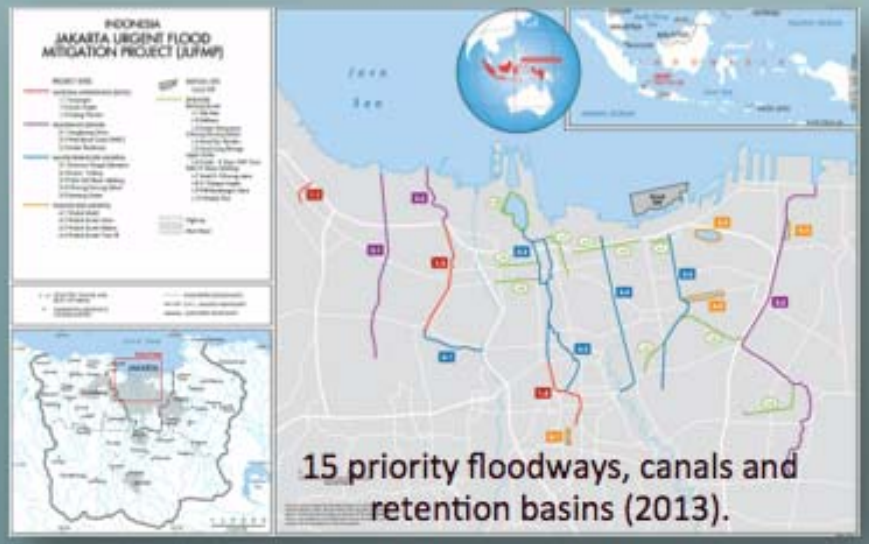
Post-1980

- Symbolic Towers
- Intentional World City
- World Hubs
- Business Districts
- Franchise/Malls
- SimCity
- Private New Towns
- Gated Housing
- Super Highways
- EPZs
- (Pre)Colonial City

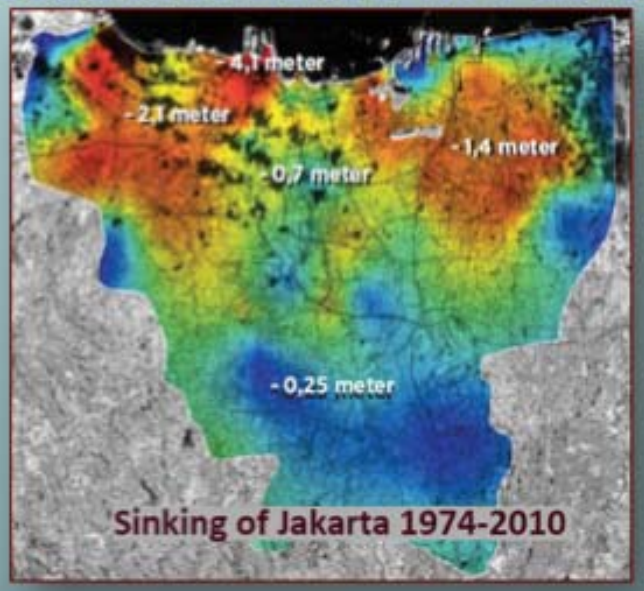


Water management and master plans

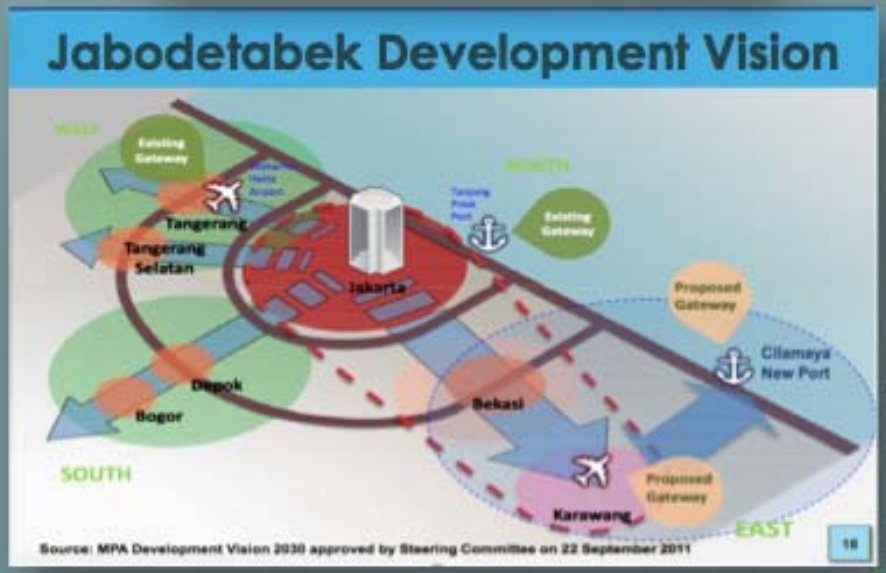
Strategy for Water Management



Ground Subsidence 1974-2010



Jabodetabek Development Vision



Recent Initiatives

- Regional Plan of Action and 2009 National Zoning Law
- Increasing cooperation across some Kabupaten boundaries
- Increasing activation of civil society organizations in response to flooding and evictions

2. Rural-Urban Regional Development

OBJECTIVE: to Link rural and urban development together *in situ* at the regional scale in a manner that benefits both rural and urban development while reaching the rural and urban poor.

MODELS:

central place theory and the "role of small towns" in rural development
Integrated rural development
"agropolitan development": rural towns as political centres

EXPERIENCES:

Bicol River Basin Development Program that focused on small towns
PARUL (Partnership in Rural-Urban Linkages) program in Indonesia
China's village-township enterprise programme

Rural Asia today

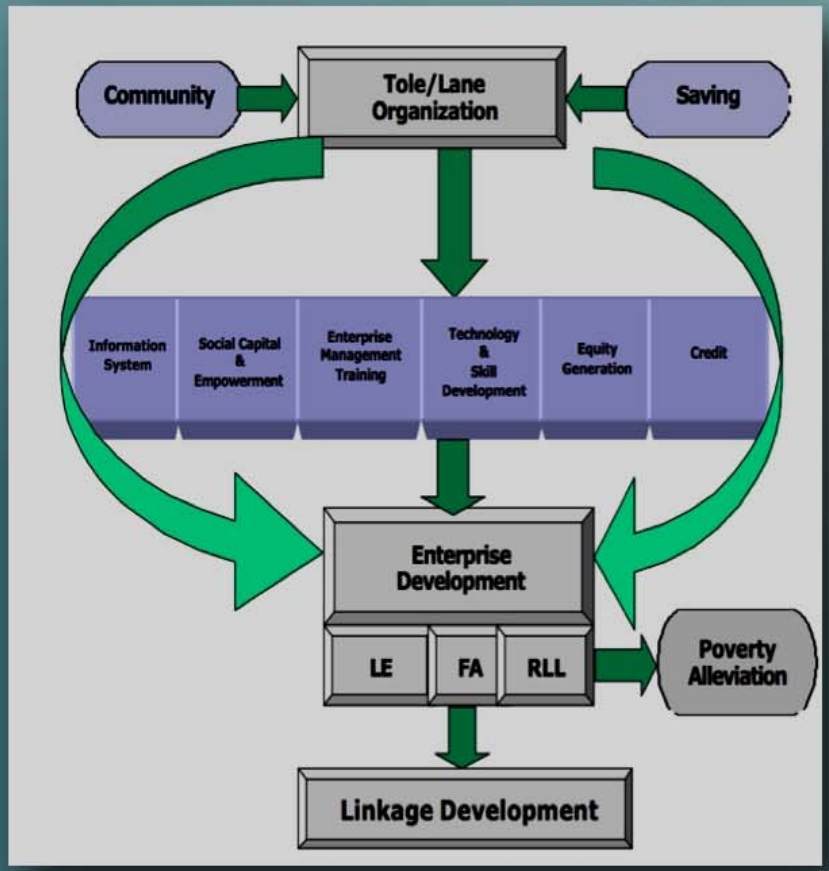
- Agriculture is no longer the principal source of household incomes.
- The mobile phone and communications revolutions making rural-urban linkages occur daily
- Global migration and rural remittance economies
- Chronic population losses in higher income economies
- Industrial agriculture and contract farming linking small producers to global corporate commodity chains.

Rural regions can no longer be viewed as simply agrarian. Rural services for non-agricultural enterprises are also appearing. In some regions craft industries are flourishing along with rural tourism. Thus rural-urban regional development needs to be given a fresh view that is open to many possibilities.

The RUPP Programme

RUPP builds rural-urban linkages from the grassroots through participatory planning at the village level that moves upward as a multi-level programme linking villages to local market and municipal centers and on to a national level.

Multi-level linkages



Village level

- Villages divided into TLOs (lane organizations) for direct civil society participation in village decision-making. Each TLO chose priorities for action

Enterprise Development

- Micro-credit provided for village enterprises (TLO Enterprise Development Plan

Rural-urban Market Linkages

- training 1 market centre facilitator (MCF) for each Rural Market Center (RMC).

Village-Municipal government linkages

- 5-7 community mobilisers (CMs) trained in Kathmandu for each partner municipalities.
- TLO and village representation at the municipal level through the Village Development Committee (VDC) composed of one person from each TLO
- New market centers with spaces reserved for villagers;
- Small scale infrastructure according to VDC priorities (TLO Development Plan – TDP), including improved sanitation, schoolhouses, bridges to main roads;
- Greater transparency of public actions through open access e-governance.

RUPP Municipalities and Markets

By 2003

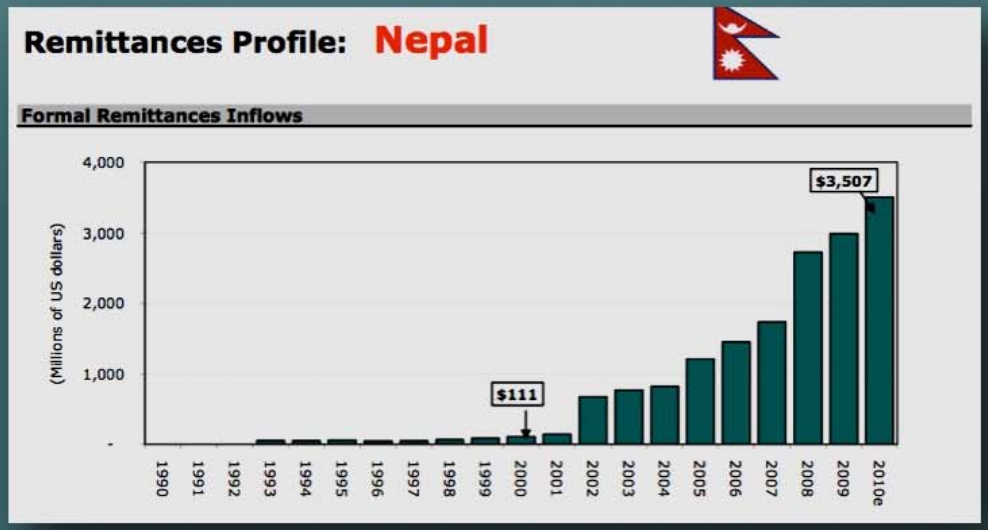
- ✓ RUPP active in 12 (total58) municipalities
- ✓ 33 rural market centers created/expanded for reciprocal rural-urban linkages

RUPP Accomplishments

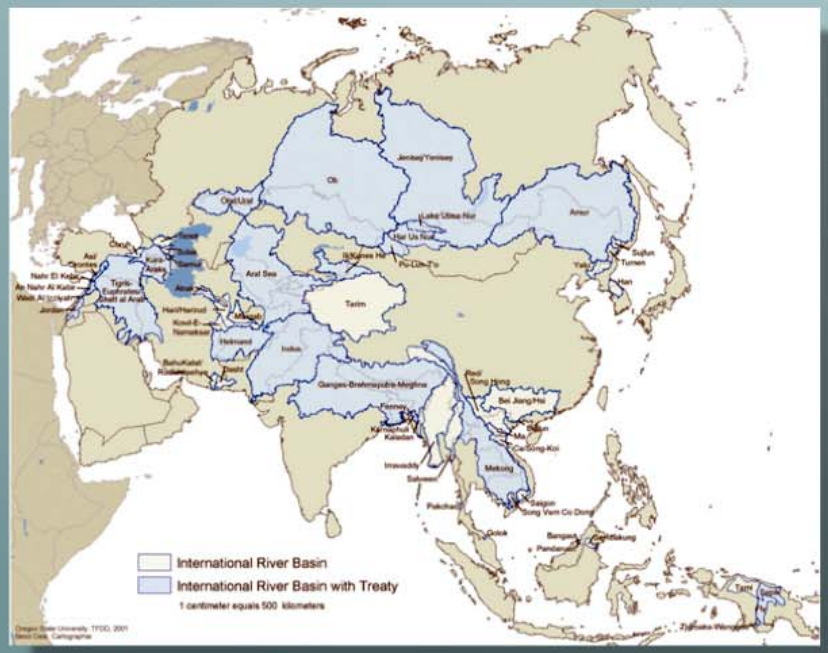
- ✓ 100% of households joined TLOs in 35 municipalities and 50 Rural Market Centres.
- ✓ TLOs mobilized Rs. 22 million ($260,000) for local projects.
- ✓ Affirmative action for representation of Disadvantaged Groups in TLO leadership.
- ✓ >70,000 people benefited from its training programmes; > ½ were women.
- ✓ >31,000 enterprises started: 2/3 raised incomes; 25% raised above poverty line.
- ✓ Enterprises run by underprivileged castes contributed to reducing inter-caste inequality.
- ✓ >4,000 people were trained in Participatory Municipal Development Planning (PMDP) and Participatory Village Development Planning (PVDP).
- ✓ Urban Information Centres (UIC) were established as municipal Data Banks.
- ✓ About 640 projects for, e.g., link roads and, environmental improvements and school construction benefitted >85,000 households.
- ✓ Awareness created about livelihood options and access to credit for HIV/AIDS.
- ✓ Health improvements gained from environmental infrastructure.
- ✓ Municipalities broadcasting daily agricultural price information supported low-income enterprises in getting fair.

RUPP Limitations

- The lack of democratically elected national and local governments
- political instability
- Relatively small budget ($10 mn. 1997-2007. Unable to expand beyond 35 municipalities even though many more municipalities requested RUPP programmes.
- The paradox of only supporting rural areas within municipal boundaries. RUPP could not reach rural regions in the Hills and Mountain Districts



3. Transborder Riparian Regions in Asia

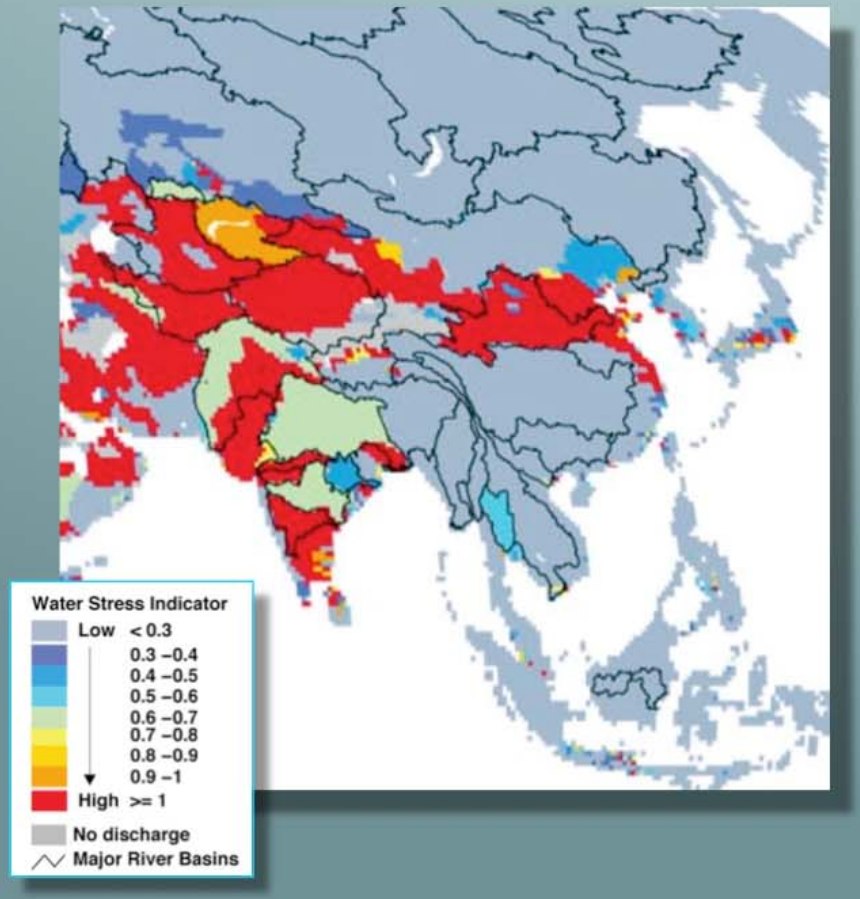


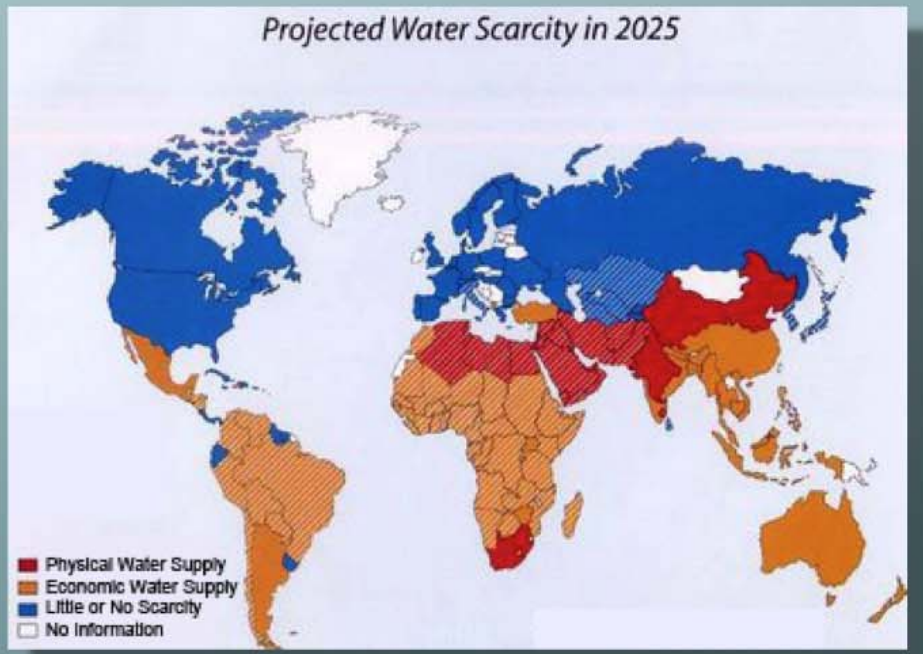
The ten major river basins of the Himalayan region

Rivers	River Basin Basin Area (sq.km)	Countries	Population (X 1000)	Population density (per sq.km)
Amu Darya	534,739	Afghanistan, Tajikistan, Turkmenistan, Uzbekistan	20,855	39
Brahmaputra	651,335	China, India, Bhutan, Bangladesh	118,543	182
Ganges	1,016,124	India, Nepal, China, Bangladesh	407,466	401
Indus	1,081,718	China, India, Pakistan	178,483	165
Irrawaddy	413,710	Myanmar	32,683	79
Mekong	805,604	China, Myanmar, Laos, Thailand, Cambodia, Vietnam	57,198	71
Salween	271,914	China, Myanmar, Thailand	5,982	22
Tarim	1,152,448	Kyrgyzstan, China	8,067	7
Yangtze	1,722,193	China	368,549	214
Yellow	944,970	China	147,415	156
Total	8,594,755		1,345,241	

Source: IUCN/IWMI, Ramsar Convention and WRI, 2003.

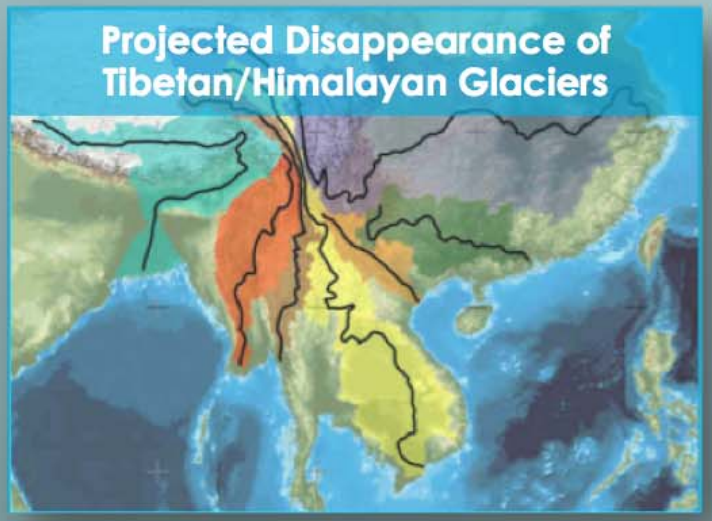
Environmental Water Scarcity Index by Basin



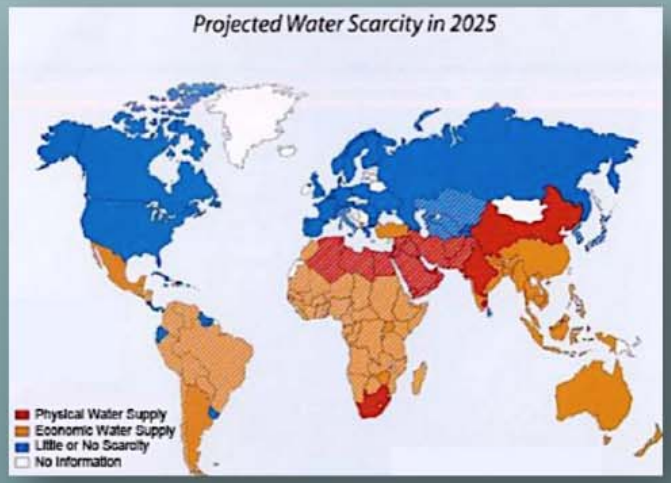


Source: Water Resources eAtlas

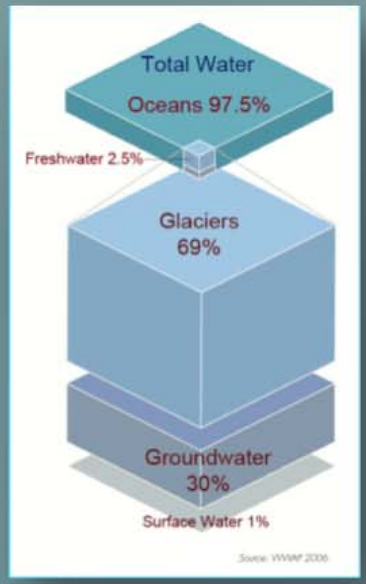
Stresses on Riparian Regions



- Accelerated urban-industrial growth through global investment
- Infrastructure for cross-border networks of flows of goods and services
- Agricultural intensification for world markets



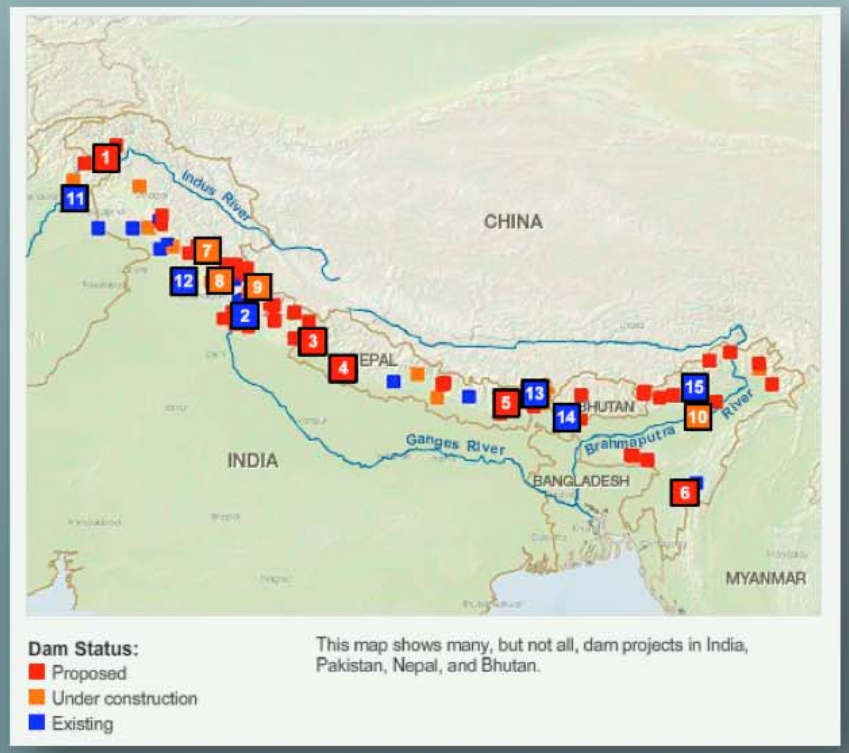
Global Sources of Water



Impacts on Water Resources

- Heightened demand for water for production and consumption
- City regions dominate water demand
- Rural & urban pollution of waterways

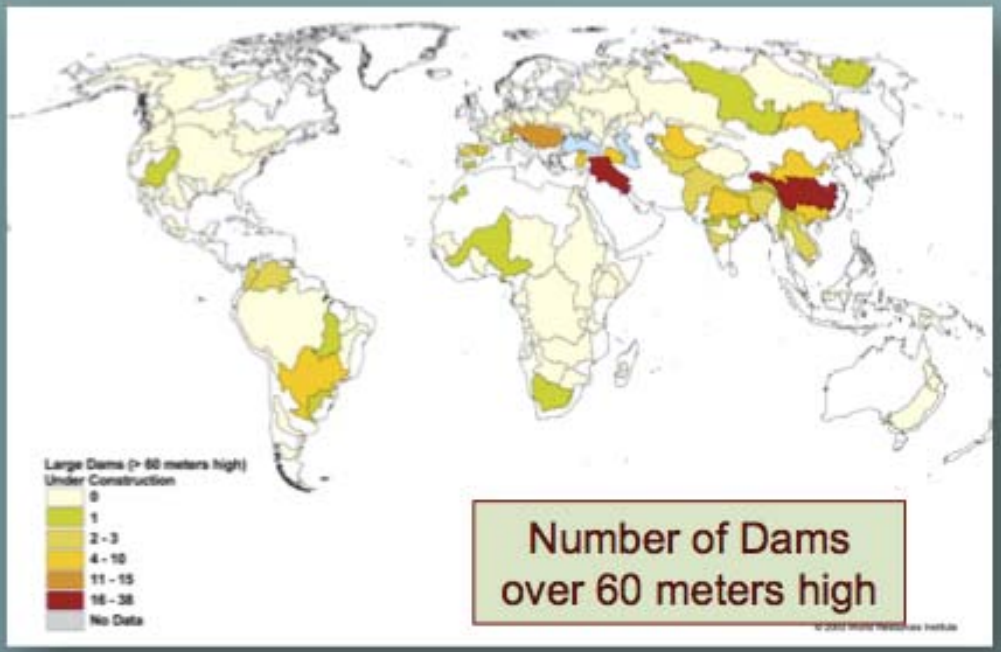
Dams in South and Southeast Asia



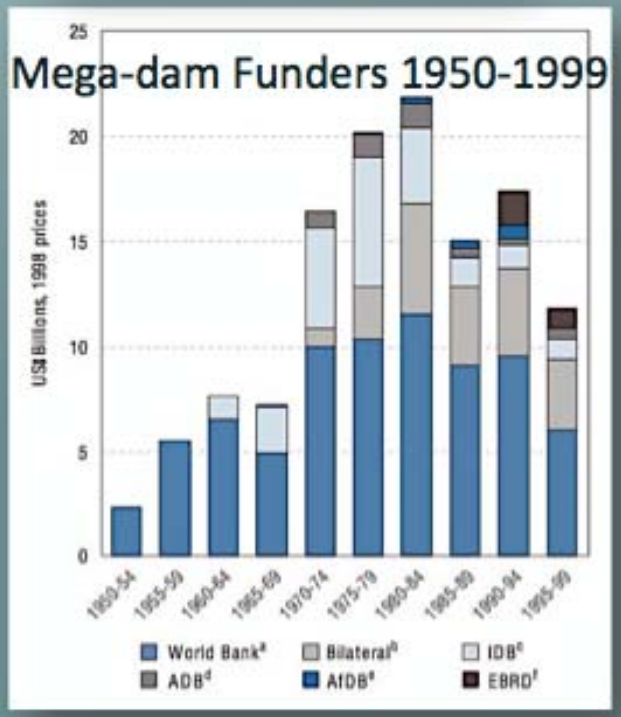
Dams and major infrastructure projects

- Impacts of large dams on rivers, watersheds and aquatic ecosystems are more negative than positive
- Irreversible loss of species and ecosystems.
- Impoverishment and displacement affecting some 40-80 million people.
- Human rights and equitable distribution of benefits.
- (Source: World Commission on Dams)

Dams and diversions have affected 60% of the world's rivers.



Number of Dams over 60 meters high



Water Conflict and Water Wars?

Water conflict is not only about scarcity

Sources
- water scarcity/water abstraction
- dam construction
- water pollution
- non-compliance with treaty provisions
- collusion and corruption
- disputes over data
- lack of transparency

Felt Impacts
- ecological damage
- loss of livelihoods
- marginalization and displacement of local people.

>50 nations have high levels of cross-border conflict over water. The six most likely in Asia are in the Mekong River Basin, which now has the largest number of dam projects proposed or underway.

"Unilateral actions to construct a dam or river diversion in the absence of a treaty or institutional mechanism … is highly destabilizing to a region, often spurring decades of hostility before cooperation is pursued."

Postel and Wolf (2001:67)

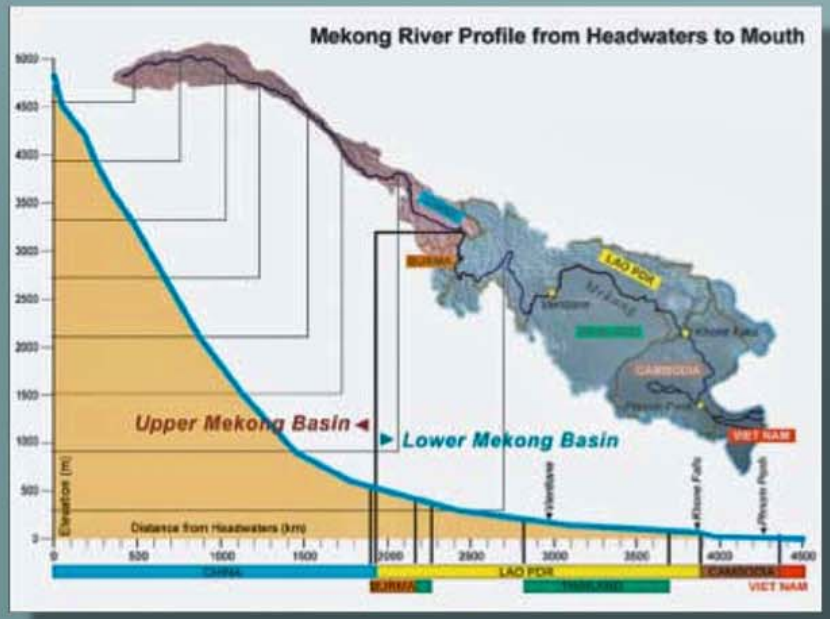
Conflict can be a driver of change if used as a source of people wanting to participate and collaborate in water management.

Agenda for Riparian IRDP

Dimension	Objective
1. Information gathering, processing and dissemination	To promote common understanding of conditions, monitor changes, and share expertise.
2. Transborder treaties, agreements, compacts, commissions	To create political agreements among countries on various aspects of riparian governance.
3. Civil society participation	To include local knowledge, issues, skills; address unanticipated impacts; build on local institutional capacities
4. Supra-national governance authority	To transfer forms of authority over riparian governance to entities above the nation-state.

Mekong River Basin

- The Mekong: 12th-longest river in the world at 4,350 km
- From the Tibetan Plateau through China to Burma, Thailand, Laos, Cambodia and Vietnam
- River basin 795,000 km²
- Population served: 60-20 million people
- 100 distinct ethnic groups
- Rare species: Asian elephant, Mekong giant catfish, and the last remaining populations of the Irrawaddy dolphin



Mekong Riparian Region

- The Mekong: 12th-longest river in the world at 4,350 km
- From the Tibetan Plateau through China to Burma, Thailand, Laos, Cambodia and Vietnam
- River basin 795,000 km^2.
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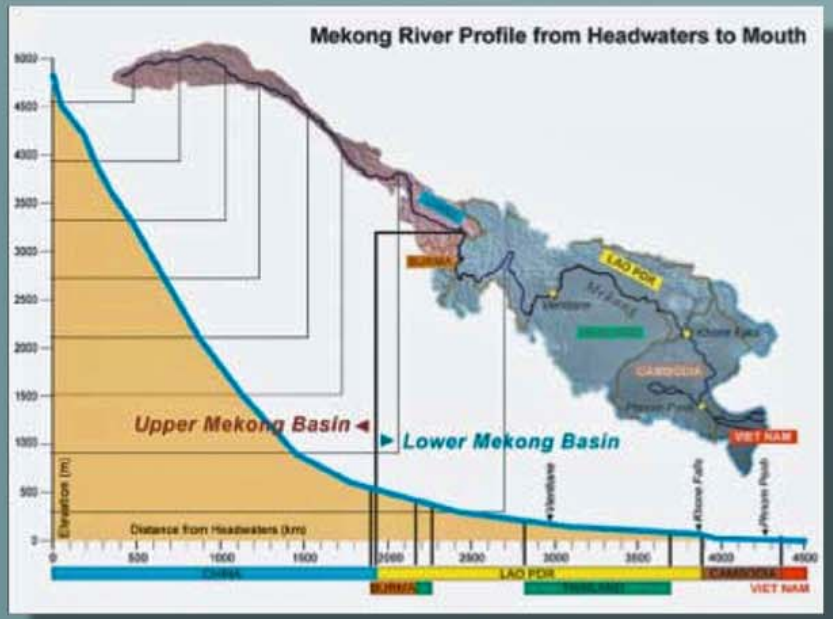


Mekong Development Issues

A new era of major dam construction

- 8 in Yunnan, China
- 30 in Laos to become the electric "battery" of Southeast Asia
- Myanmar, Vietnam and Cambodia also building many new dams

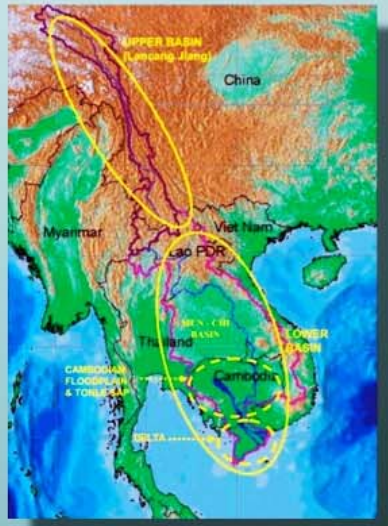
- irreparable ecological damage
- impacts on highland ethnic minorities
- High levels of river pollution
- Increasingly severe flooding
- Waterborne infectious diseases,
- Sedimentation and riverbank erosion

Global Warming

- By 2050 the entire Mekong Delta severely inundated by a sea rise of 1-2 meters.
- Extreme rains causing flash floods are also expected.
- For Vietnam the consequences of sea level rise are potentially "catastrophic", affecting more than 10 million people (World Bank 2006b).

Mekong River Commission

Lower Mekong:
Cambodia, Laos, Thailand, Vietnam



- 1957: Mekong Committee (UNECAFE) established for a large-scale irrigation and 5 dam hydropower project in the Lower Mekong Basin.
- Conflict and regime changes prevent cross-border efforts until 1990s.
- 1995: Mekong River Commission (MRC) established for cooperative natural resource planning, environmental and social cost management, databases and information systems. UNDP funds and maintains the Mekong Secretariat.
- 1996 China and Myanmar became Dialogue Partners of the MRC.

MRC agreements

- 1999: Water Utilization Programme (WUP) committed members to cooperatively implement a number of projects by 2005.
- 2001: Work Programme:
  - region-wide rather than project approach
  - MRC as a "learning organization" engaging civil society in "bottom-up" river basin planning.

Cross-Border Water Governance

Main Findings

- Dependent on international agencies for funding/conflict resolution.
- Lacks implementable legal authority across borders.
- Reactive to upstream events rather than multilateral or proactive.
- Inadequate information sharing, lack of transparency and corruption heighten cross-border conflict.
- Openings to grassroots involvement are being made, but top-down, centralized control remains dominate mode of governance.
- Local governments are not active in cross-border governance.
- The portent of violence and water wars rises as crises deepen and are manifested in nation-versus-nation animosities.
- Emerging water crises pose imminent risks to national well-being and economic prosperity throughout Asia.

"Integrated Water Resource Management" (IWRM)

IWRM: "*the coordination of development and management of water, land and other resources for maximizing of economic results and social welfare with no compromise on environment through participation and integration of the resources, institutions and stakeholders for sustainable water resources*"

(Global Water Partnership: 2003).

Potential contribution of IWRM

- Recognition that water management is also about sustaining regional ecologies and adapting livelihoods to be water efficient
- Regional rather than project or sector planning

Critique:

- No widely agreed upon understanding of what is IWRM
- Coordination among sectors similar to Integrated Rural Development that failed in the 1970s.
- How to move from national to cross-border planning?
- What is the role of local governments and localities?
- What does "participation" mean?
- What is the process of decision-making?

Conclusions: Key Elements of IRDP

- Research and information sharing
- Civil Society engagement
- Strengthening of local government capacities to govern with civil society organizations and economic interests and with other local governments across borders
- Government, International agencies and NGOs as facilitators of local information sharing, research, conflict resolution.