



# Environment and Development: China and India

## 环境与发展比较：中国与印度

### CAEP-TERI STUDY HIGHLIGHTS\*

#### Environment and development

Economic costs linked to environmental degradation

- China: 1.8% to 3.05% of GDP
- India: 3.5% to 7.5% of GDP

Population reliant on agriculture for livelihood

- China: ~ 39%
- India: ~ 56%

Both countries enormously coal dependent in terms of total energy by source

- China: 70%
- India: 55%

#### Air

Commonalities

- Big cities of China and India among the world's most polluted
- Health impacts: 400,000 deaths in India and 390,000 deaths in China

Differences

- China pay more attention to quantity control of atmospheric pollutants in comparison to air quality control in India
- China monitors additional pollutants such as acid rain. China has pilot tested sulphur dioxide trading policy; Indoor air quality initiatives taken in India

#### Solid waste

Commonalities

- Increasing industrial and municipal solid wastes – 960 MTPA industrial waste and 57 MTPA MSW in India; 1.76 BTPA industrial waste and 148 MTPA MSW in China; rapid increase in e-waste generation
- Waste management issues include lack of segregation at source; land and water pollution

Differences

- Increase in waste generation much higher in China (15-16% as against 1.5% in India)
- China has a better database for monitoring waste generation; India has taken a programmatic approach for urban waste management

#### Governance

Commonalities

- Extensive governance regime in the two countries with separate ministries dealing with environment protection
- The umbrella law of Environment Protection Law of 1979 in China and Environment Protection Act of 1986 in India

Differences

- India is focused on participatory approaches like Joint Forest Management while China has stringent environment legislative procedures
- Domestic political construct

#### Forests

Commonalities

- Forest cover in both countries is similar – China (18%) and India (21%)
- Decreasing per capita availability and demand and supply gap; quality of forest resources is a key issue
- Forest resources largely controlled by government in the two countries
- Forest fires a common phenomenon

Differences

- Shifting (agricultural) cultivation a key threat in India while illegal conversion of forestland for manufacturing a greater cause of concern in China

#### Land

Commonalities

- Rural population in China and India severely affected by land degradation
- Less devolution of power and ambiguity in institutional functions and responsibilities of the different departments

Differences

- Land reforms have been more successful in addressing the issue of distributive justice in China than in India
- India has followed participatory approaches to address land issues through large scale programmes like the National Rural Employment Guarantee Scheme and Joint Forest Management
- Policies in China focus more on addressing desertification while India focuses on watershed approach

#### Water

Commonalities

- Declining per capita water availability and deteriorating water quality (including increase in COD and BOD)
- Low wastewater treatment efficiency and limited use of economic instruments such as water pricing and pollution discharge cess, and water rights policies

Differences

- Access to potable water and sanitation facilities is still a key concern in India in both rural and urban areas

#### Traditional knowledge and biodiversity

Commonalities

- High proportion of endemic species in the two countries
- Traditional knowledge used in the field of medicine and agriculture
- Scope for cooperation to commercialize TK based products

Differences

- Absence of a comprehensive legislative for biodiversity protection in China
- India has legislative provisions under the Biological Diversity Act of 2001

#### Climate Change

Commonalities

- High dependence of livelihoods on climate sensitive sources, large coastline and mega deltas
- Among largest emitters of GHG emissions but low per capita emissions
- Domestic action plans to address climate change with elements of both adaptation and mitigation
- High number of Clean Development Mechanism projects; Energy efficiency could be key for both the countries to meet mitigation targets

Differences

- Structure of China's economy might result in global political pressures towards mitigation action whereas infrastructure constraints in India might limit adaptive capacity