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INDIA AND CONSERVATION: A SNAPSHOT

A. WILDLIFE¹

- Based on a study conducted in 2007, the following percentage of India's wildlife is threatened with extinction:
 - Mammals - 41%
 - Birds - 7%
 - Reptiles - 46%
 - Amphibians - 57%
 - Freshwater Fish - 70%
- Four of the 386 species of mammals evaluated are already extinct

Note: For birds, threats refer to global extinction and not just India

B. FORESTS

- India aims for 33% forest cover but currently has only 21.3% of forest and tree cover.²
- This makes it one of the countries with the lowest per capita availability of forests in the world.³
- 25% of India's total land is undergoing desertification while 32% is facing degradation.⁴
- India accounts for 27% of global imports of (non-coniferous) tropical timber-based industrial roundwood, making it the world's second largest timber importer after China.⁵
- India is the largest import market for palm oil in the world, at around 22% of global volumes and the second largest consumer of palm oil after Indonesia.
- India is estimated to be the largest destination for high risk tropical log (illegal) exports from Sarawak (Malaysia) and Myanmar. Other illegal wood imports to India come in the form of plywood, furniture and paper from China; and pulp and paper from Indonesia.⁶

C. WATER

- India has about 4% of the world's freshwater resources ranking it among the top ten water rich countries.
- Despite this, India is designated a 'water stressed region'
- 70% of our surface water is polluted and 60% of groundwater sources are expected to be in a critical state within the next decade.⁷
- India has lost 38% of its wetlands from 1991 to 2001.⁸

¹ Biodiversity in India: E Somanathan

² Forest Survey of India, 2013

³ http://shodhganga.inflibnet.ac.in/bitstream/10603/275/9/10_chapter5.pdf

⁴ Ministry of Environment and Forests, 2014, "Desertification, Land Degradation and Drought in Context of India".

⁵ ITTO database, 2015

⁶ Chatham House, 2014, 'Illegal Wood Import and re-export: the scale of the problem and the response in Thailand, South Korea and India'

⁷ 'Asian Development Bank Institute, 2012, 'Asia's Wicked Environmental Problems'.

⁸ <http://www.moef.nic.in/sites/default/files/nlcp/O%20-%20Social%20Cultural%20Aspects%20Participation%20for%20Management/O-7.pdf>

- In Asia alone, 5000 sq km of wetland area is lost to agriculture, dam construction and other uses every year.⁹

D. CLIMATE

- The all-India annual mean temperatures have shown a significant warming trend with an increase of 0.51°C per 100 years.¹⁰

Impacts of a changing climate on India

a. Sea Level Rise

- One of the most vulnerable regions to climate change, the Indian coastline has seen (mean) sea-levels rise by 1.30mm/year over the past several decades.¹¹
- A sea level rise of 1 meter could permanently submerge around 14,000 square kilometers of coastal areas in India.¹²

b. Extreme Weather

- At least 200 people were killed in massive flooding that impacted Kashmir in the first week of September 2014.
- Drought impacted a large portion of the country in 2009. In some areas monsoonal rainfall was the lowest in the four decades.
- Floods and droughts are likely to increase since there will be a decline in seasonal rainfall, coupled with increase in extreme precipitation during monsoon.

E. FOOD¹³

- It is estimated that by 2020, food grain requirement will be almost 30-50% more than the demand in 2000.
- India could also see a 10-40% loss in crop production in India by 2080- 2100 due to global warming.
- In March 2004, temperatures were higher in the Indo-Gangetic plains by 3-6° C, which is equivalent to almost 1°C per day over the whole crop season.
- As a result, wheat crop matured earlier by 10-20 days and wheat production dropped by more than 4 million tonnes in the country.

F. ECOLOGICAL FOOTPRINT¹⁴

- According to the Living Planet Report 2016, India ranks fifth in terms of bio-capacity.
- While Indians have a low personal footprint at an individual level, it is a challenge when aggregated by population size

⁹McAllister, D.E., Craig, J.F., Davidson, N., Delany, S., Seddon, M., 2001. Biodiversity Impacts of Large Dams. International Union for Conservation of Nature and United Nations Environmental Programme, Gland and Nairobi

¹⁰ Kothawala, D. R, Munot, A. A. and Krishna Kumar, K. (2010), *Surface Air Temperature Variability over India during 1901-2007 and its association with ENSO*, *Climate Research*, 42(2). 89-104

¹¹ Unnikrishnan. Et.al (2010). 'Sea-level changes along the Indian coast – Impacts & Vulnerability', Presentation to the Ministry of Environment and Forests, National workshop, 2010

¹² Islam.M.Z., (2013) *Forecasting ecological impacts of sea-level rise on coastal conservation areas in India*. Journal of threatened taxa. Vol 5. No 9

¹³ INCAA report – *Climate change and India : a 4X4 assessment . A sectoral and regional analysis for 2030*

¹⁴ To Choose Our Future: Ashok Khosla

- We are currently using resources at a rate that is 70% above our bio-capacity.
- This equation will be further affected as wealth grows and consumption patterns change.
- Approximately 50% of India's population depends directly on natural resources.
- If India continues its current development trajectory, its resource demand will have more than tripled to a figure equivalent to the combined current consumption of all the OECD countries by 2030.