STRENGTHENING CAPACITY FOR ENVIRONMENTAL LAW IN THE ASIA-PACIFIC : DEVELOPING ENVIRONMENTAL LAW CHAMPIONS

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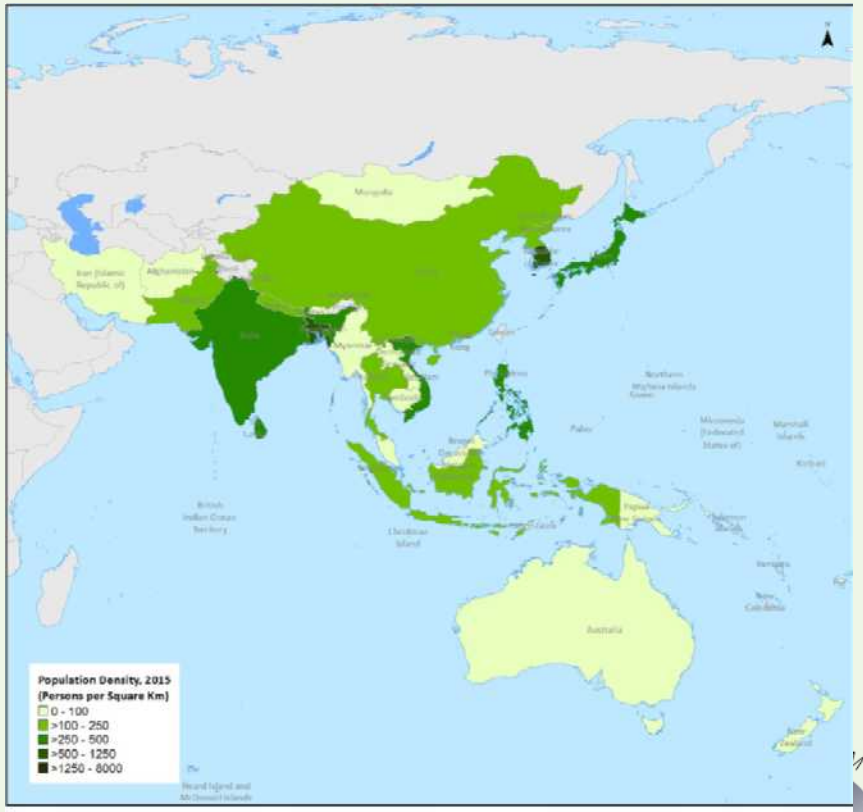
SIXTH GLOBAL ENVIRONMENTAL OUTLOOK (GEO 6) REPORT FOR ASIA AND PACIFIC

Asia and Pacific

Asia Pacific priority:
Increasing vulnerability

UNEP Live data shows:
Between 1990-2014 natural disasters affecting 4.5 billion people caused USD 1076 billion economic losses.



Background, Nature and Purpose

- Decision to undertake regional assessments was taken at the Global Intergovernmental and Multi-stakeholder Consultation in Berlin, 21–23 October 2014.
- UNEP Secretariat and authors provide an objective evaluation and analysis of the state, trends and outlooks of the environment in the region in order to support environmental decision making.

Policy-Relevant Questions

In this assessment, the judgment of experts is applied to existing knowledge to provide scientifically credible answers to policy-relevant questions ----

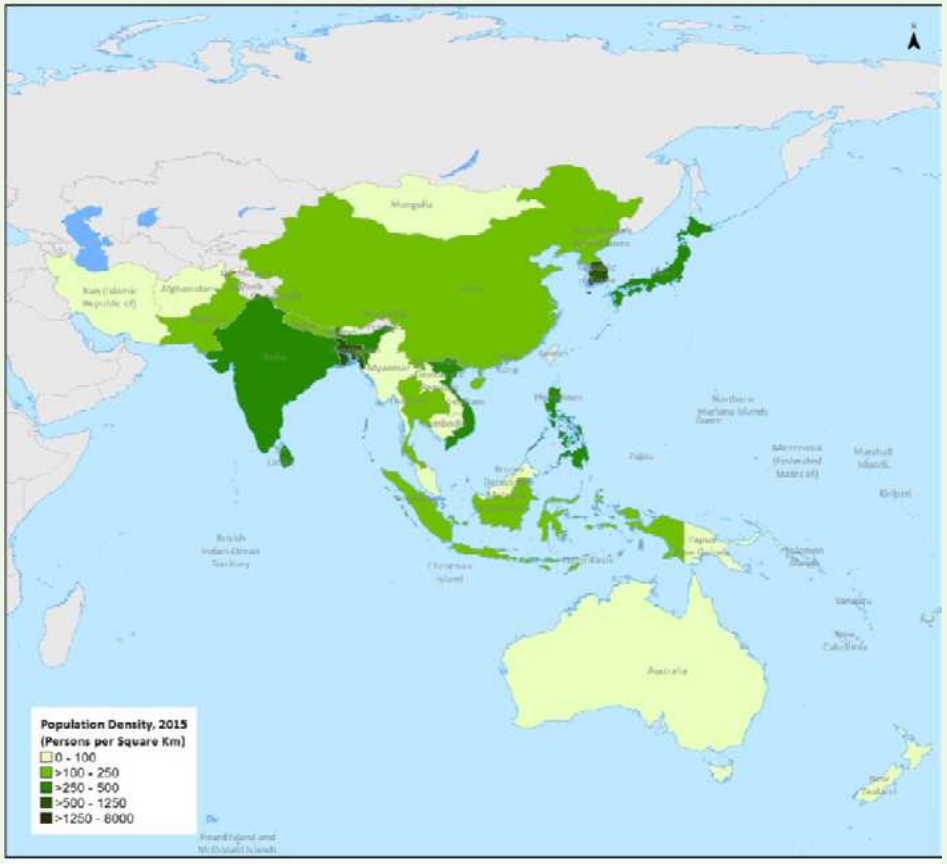
- What is happening to the environment in Asia and the Pacific and why?
- What are the consequences for the environment and the human population of Asia and the Pacific?
- What is being done and how effective is it?
- What are the prospects for the environment in the future?
- What action could be taken to achieve a more sustainable future?

Structure of Regional Assessment

- Four chapters
  - Review of regional priorities
  - State of the region's environment for six key themes, air, land, biota, freshwater, coasts and oceans, and wastes
  - Policy responses to these environmental issues
  - Review of main trends that will affect the region's environment in the future and the needed action to achieve a more sustainable future

Five GEO 6 Sub-regions in Asia and Pacific

1. Australia and New Zealand
2. Northeast Asia: China, DPR Korea, Japan, Mongolia and Republic of Korea
3. South Asia: Afghanistan, Bangladesh, Bhutan, India, Iran, Maldives, Nepal, Pakistan and Sri Lanka
4. Southeast Asia: Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Timor-Leste, Thailand and Viet Nam
5. Pacific: Cooks Islands, Fed. States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.



OVERVIEW

Overview of GEO 6

- Paints a comprehensive picture of the environmental factors contributing to human health and well-being at the regional level
- Demonstrates economic growth and improved access to basic services in the region
- Highlights the complexity of the interlinked environmental, social and economic challenges now confronting decision makers

Overall Picture

- Changing demography, lifestyles and access to basic services
- Increasing inefficiency in the use of resources
- Increasing vulnerability to the impacts of natural hazards and extreme events
- Increasing environmentally related health risks:
- Widening gaps across the landscape of policies and legislation and their implementation

KEY FINDINGS SHOW ACCELERATING ENVIRONMENTAL DEGRADATION WIDELY ACROSS THE REGION AND ITS IMPACT ON HUMAN WELLBEING

Air Pollution

- Continuing increase in ambient concentrations of ozone and fine particles (short-lived climate pollutants (SLCPs) such as black carbon)
- Trans-boundary smoke haze pollution
- Indoor air pollution from burning poor quality fuels or biomass impacts women and children throughout the region contributing to health effects

Land Degradation

- Intensified over most of the region, with consequent displacement of indigenous people, loss of biodiversity, and reduction in important forest products
- Additional implications for water resources in terms of soil water content and groundwater recharge
- Total forest area has increased in some areas of Asia since 1990 due to reforestation efforts, but there are significant sub-regional differences.
- Continuous loss of wilderness, natural forest systems, mangroves and other natural systems to croplands and urban growth

Threatened Biota and Ecosystems

- Ecosystems integrity and biodiversity threatened due to extensive agriculture, oil palm and rubber plantations, aquaculture and illegal wildlife trade
- Natural forest areas in Southeast Asia and the Pacific, recognized as global biodiversity hotspots, declined drastically in 1990–2015.
- Number of threatened mammal and plant species increased by more than 10 and 18 per cent respectively in the last decade
- Three-quarters of all threatened birds on oceanic islands are also in danger from invasive species.

Threatened Biota and Ecosystems

- Threatened:
  - quarter of all conifers and cycad species
  - One-fifth of marine mammal species.
- Bleaching of over 25% of hard warm-water corals in oceanic countries and Small Island States mainly due to high thermal stress
- Corals impacted by dumping of plastic debris and micro-plastic hazardous waste in the oceans

Deterioration of Freshwater

- Water scarcity and deteriorating water quality throughout the region especially in Northeast and South Asia
- Frequency and intensification of flood and drought events
- Contamination of water sources from human and livestock sewage
- Widespread contamination of ground water by pharmaceutical and personal care products, nanomaterials, and organochlorides increase the exposure to human health risk, especially for women and young children.
- Water related diseases and unsafe water contribute to 1.8 million deaths annually and 24.8 million disability-adjusted life years in the region.

Coasts and Oceans at risk

- Increasing human settlement in the coastal zone due to continued urbanization, with 325 million more people expected to live in the coastal zone by 2025
- About 60 per cent of the coastal mangroves in Asia and the Pacific have been cleared for development
- More than 80 per cent of the coral reefs are at risk
- Severe erosion prevails on 1/4 to 1/3 of Southeast Asia coastlines
- Pollution caused by plastic debris and microplastics, an increasing concern

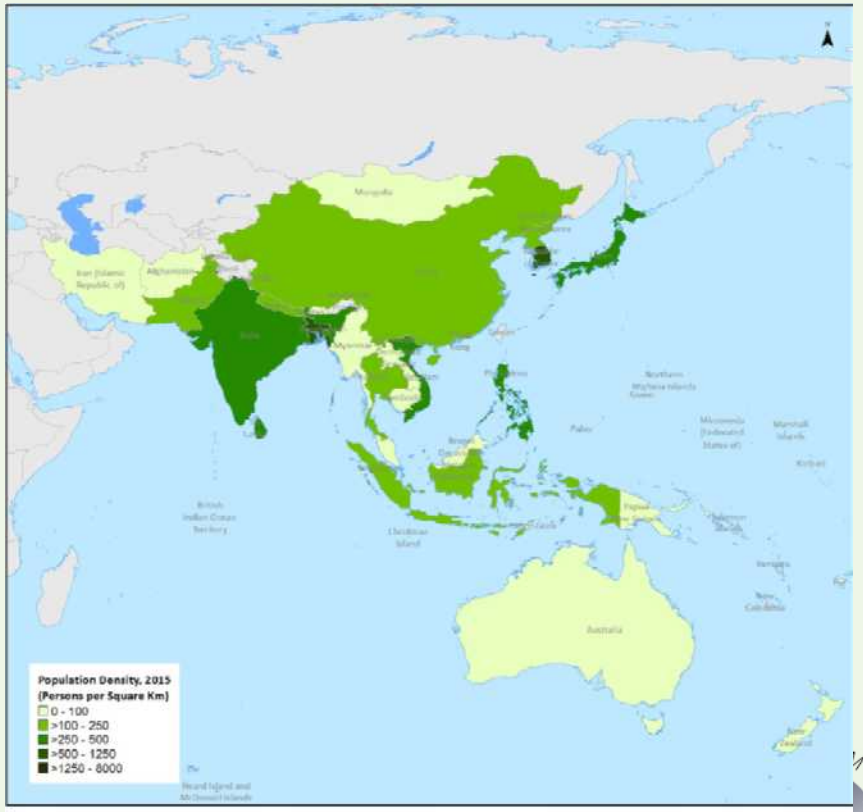
Increase in Waste Generation

- Municipal solid waste generation expected to rise from 870 million tonnes in 2014 to 1.4 billion tonnes annually by 2030
- New and complex waste streams like e-waste, food waste, construction/demolition waste, disaster waste and marine litter are emerging
- Uncontrolled dumping remains to be the main waste disposal method, leading to leachate run off, methane emission, spontaneous combustion, and other environmental problems
- Recent emergence of waste to energy investment programs could be further enhanced to provide better waste disposal.

WAYS FORWARD: POLICY MESSAGES

More Transformational Change

- Sustainable Development Goals (SDGs) considered an opportunity to promote a more integrated and holistic approach to resource management and ecosystem preservation



Key Policy Messages

- Decarbonize development and improve resource efficiency for transition to an inclusive green economy.
- Protect and enhance natural capital and ecosystem integrity
- Build resilience to natural hazards and extreme climate events

Key Policy Messages

- Respond to environmental health risks
- Strengthen environmental governance for effective policy diffusion at multiple scales
- Strengthen science-policy interface and access to knowledge
- Enhance international/regional cooperation on climate, air quality and other environmental issues