Fact Sheet

Forests and Trees for Human Health:
Pathways, Impacts, Challenges and Response Options
A Global Assessment Report

Human Health, Morbidity and Mortality

- Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity[i].
- The third Sustainable Development Goals (SDG 3) specifically focuses on health and aims to "Ensure healthy lives and promote well-being for all at all ages.
- Less than half of the global population is covered by essential health services[ii].
- The ten leading risk factors for the global burden of diseases are: hypertension, smoking, high fasting plasma glucose (i.e., hyperglycaemia), low birth weight, pre-term birth, overweight and obesity, ambient air pollution, high cholesterol level, alcohol use and household air pollution[iii].
- The global burden of disease has shifted: non-communicable diseases, including mental health problems, are on the rise, while the same can be said for zoonotic diseases.
- The potential occasions for wildlife-human transmission of diseases are liable to double by 2070[iv].
- Land-use change, including deforestation, is estimated to have caused the emergence of more than 30% of new diseases since 1960[v].
- One in five deaths globally is associated with poor diet[vi].
- From 1996 to 2015, an estimated 1.3 million people died as a direct result of natural hazards like flooding, hurricanes, drought, wildfires, landslides and extreme temperatures, and these are increasing due to climate change[vii].
- Approximately 24% of global deaths (and 28% of deaths among children under five) are due to modifiable environmental factors[viii].
- Factors, such as urbanisationand climate change, have resulted in major threats to human health through air pollution and extreme weather events, such as heatwaves, floods, hurricanes and periods of drought.

Forests, Trees and Green Spaces

- For the purposes of this report forests, trees and green spaces are defined as "forests and land, partly or completely covered with trees, shrubs, grass or other vegetation, including parks, street tree plantings, community gardens and cemeteries, but also rooftop gardens and vertical gardens, meadows and woods".
- The world has a total forest area of 4.06 billion hectares, representing 31% of the total global land area[ix].
- 10 million ha of forests continued to be lost each year between 2015 and 2020[ix].
- Changes in the amount of forest area do not paint the full picture, as the integrity and quality of forests and their functional capacity are crucial for the provision of ecosystem services.

- The main drivers of forest loss and degradation around the globe are the production of commodities (in particular soy, cattle and palm oil), forestry, shifting cultivation and fire, and climate change accentuates the impact of these drivers[x].
- The three pathways for securing and enhancing the essential roles of forests: halting deforestation and maintaining forests; restoration; and sustainable use[x].
- A green infrastructure planning approach has been applied across cities worldwide that has proven successful in enhancing connections between forests and other green spaces, promoting better ecosystem functionality and easier movement for people and other species.

Forests and Human Health Interlinkages

- Forests and trees in both urban and rural ecosystems can contribute to the mitigation of several leading risk factors for the global burden of diseases, including hypertension, high fasting plasma glucose (i.e., hyperglycaemia), low birth weight and pre-term birth, overweight and obesity, ambient air pollution and high cholesterol level[iii].
- Natural environments can also provide therapeutic effects for mental health conditions such as anxiety, depressive disorders and ADHD.
- Forests and trees outside forests are essential for global food security and nutrition.
- Medicinal plants provide primary healthcare to 70% of the world's population[xi].
- A quarter of all new drugs from 1981 to 2019 were derived from nature, and another 20% of new drugs mimic nature[xii,xiii,xiv].
- Urban green spaces can reduce temperatures by up to 3°C, depending on local context, the benefits of which are starkly evident during heatwaves[xv].
- Urban green spaces can improve air quality by modifying the concentrations of gaseous and particle pollutants[xvi].
- Human health outcomes of forests depend on contextual factors such as dependency on forests, socioeconomic status, gender, the proximity and accessibility of a forest, its density and size, diversity, type, and the biodiversity it hosts.

One Health

- New integrative approaches such as the One Health, Planetary Health and EcoHealth frameworks consider the nature-human relation more inclusively along with the health of other beings, ecosystems and the planet.
- One Health is an integrated, unifying approach that aims to sustainably balance and optimise the health of people, animals and ecosystems[xvii].

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