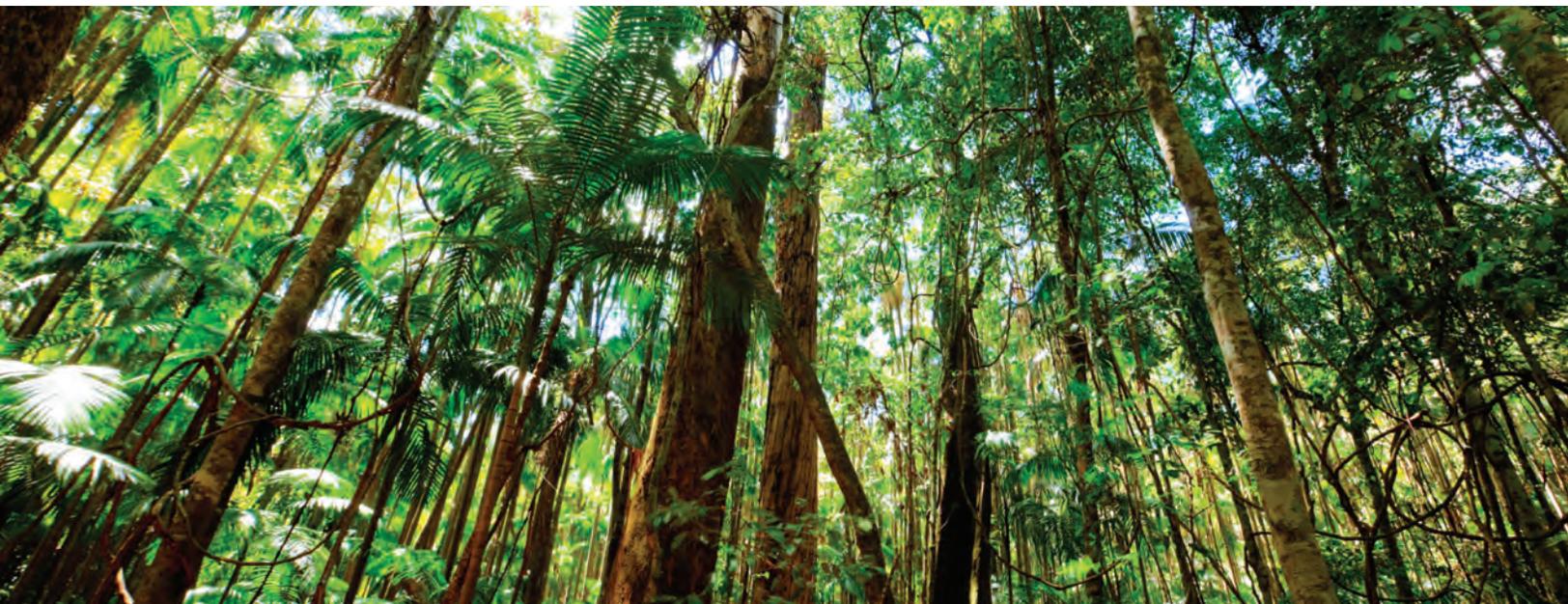


WHY POPULATION MATTERS TO **FORESTS**



Deforestation threatens the well-being and livelihoods of millions of people who heavily depend on forest resources. It is particularly devastating for women and children in poor rural communities. Yet deforestation is occurring at alarmingly high rates, especially in areas of the world that have high levels of population growth. Providing men and women with family planning to achieve their desires for smaller family sizes is a priority that will address forest decline and empower families.

The State of Forests

Forests cover one-third of the world's total land area, representing an area of more than 4 billion hectares in 2010. This represents 0.6 hectares per person, or about a soccer field for each person if forests were divided equally among the population.¹ There is wide variation in the global, regional and local distribution of forests. Five countries (the Russian Federation, Brazil, Canada, the United States of America, and China), with a combined population of around 2 billion people account for more than fifty percent of the total forest area of the world. A similar number of people live in more than 60 countries which have forests on less than 10 percent of their land area.²

Forest resources contribute greatly to the economic and social needs of many around the world, with more than 1.6 billion people currently relying on them for their livelihoods. People depend on forests to varying degrees based on a number of factors including proximity. The level of dependence is even greater among some who live inside or close to dense forests. About 60 million people are wholly dependent on forests while more than 350 million people largely depend on these areas for subsistence and income.³ About 10 million people are employed in forest management and conservation. For all of these people, forest destruction means the loss of livelihoods. The forestry sector contributes greatly to

national development goals, and provides more than 8 percent of gross domestic product (GDP) in some developing countries.⁴

Deforestation continues at high rates especially in developing countries, although there are indications of it slowing down at the global level. This loss is mainly occurring through the conversion of forests into agricultural land.⁵ Africa and South America recorded the highest net loss of forests between 2000 and 2010. From 1990 to 2010, the top 10 countries with the largest forest loss, had a combined net loss of 7.9 million hectares of forest area per year, an area the size of Panama or the Czech Republic.

Links between Population and Forests

Demographic factors including population growth, density, distribution, migration, and urbanization are important drivers of deforestation. The top 10 countries experiencing the greatest forest loss have large populations, many of which continue to grow rapidly (Table 1). In general, areas of high population growth overlap with those that have experienced high forest loss over the years (Figure 1).

POPULATION GROWTH, DENSITY, AND DISTRIBUTION

Evidence shows that rapid population growth, in combination with other factors, contributes to increasing deforestation.⁷ Small frontier farmers, living on the edge of forests, drive much of the developing world's deforestation by cutting down forests for settlement and food production.

TABLE 1: Population Matters to Top 10 Countries with Net Loss of Forest Area

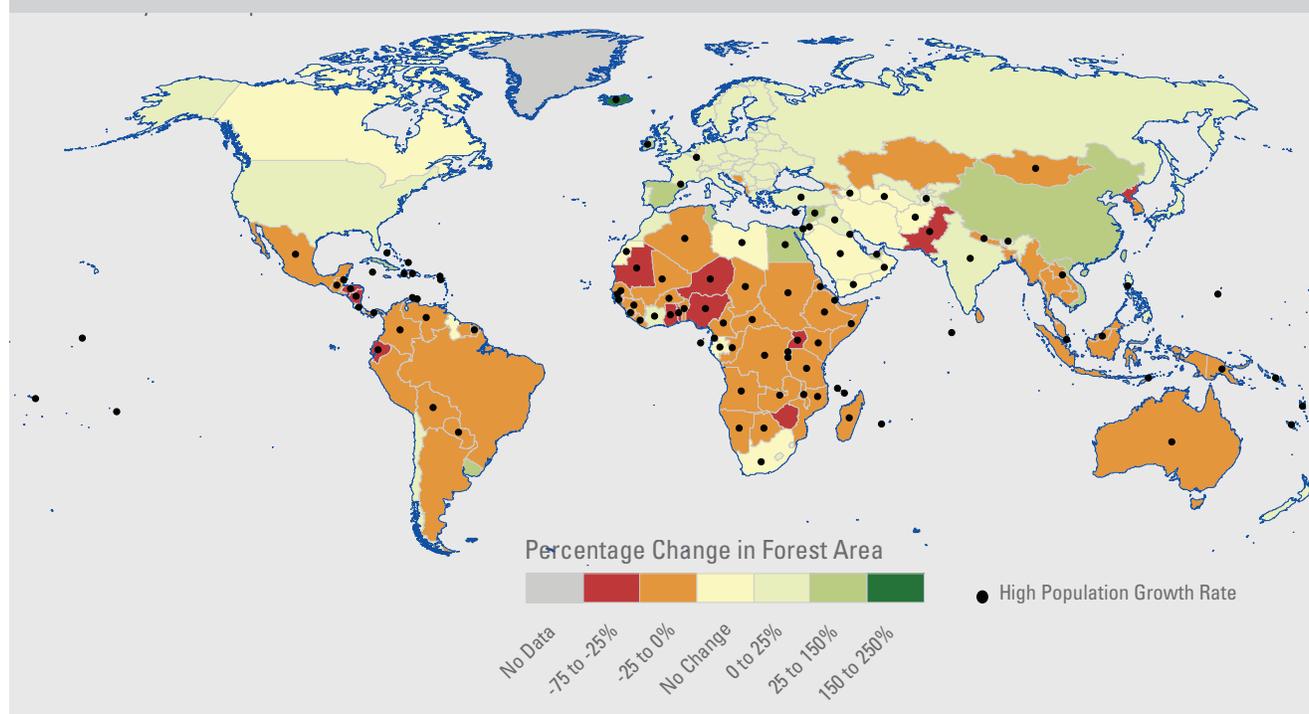
Country	Annual Change of Forest Area, 2000–2010		Population (Millions)		Unmet need for FP
	1,000 ha/yr	%	2010	2050 Projected	
Brazil	-2642	-0.49	194.9	222.8	6.0
Australia	-562	-0.37	22.3	31.4	N.A
Indonesia	-498	-0.51	239.9	293.5	9.1
Nigeria	-410	-3.67	158.4	389.6	20.2
United Republic of Tanzania	-403	-1.13	44.8	138.3	21.8
Zimbabwe	-327	-1.88	12.6	20.6	12.8
Democratic Republic of the Congo	-311	-0.2	66.0	148.5	24.4
Mynamar	-310	-0.93	47.9	55.3	19.1
Bolivia	-290	-0.49	9.9	16.8	20.2
Venezuela	-288	-0.60	28.9	41.8	N.A.
Total	-6,040	-0.53	825.6	1,358.6	

n.a = Data not available

Source: Food and Agricultural Organization of the United Nations (FAO). 2010. *Global Forest Resources Assessment 2010*. Rome: FAO.; United Nations Population Division. 2009. *World Population Prospects: The 2008 Revision*. New York: UN Population Division.; UN Population Division. 2010. *World Contraceptive Use 2010*. New York: UN Population Division.

Figure 1: High Population Growth Overlaps with High Forest Loss, 1990-2010

Countries with high rates of population growth are those where the population growth rate is above the median of all countries between 2000 and 2005. This group includes all countries where populations were estimated to grow by 1.33 percent annually or more over the period. These maps utilize the medium scenario of the United Nations long-range population projections, which assumes that fertility rates in all countries stabilize at replacement level.⁶



Sources: Food and Agricultural Organization of the United Nations (FAO). 2010. *Global Forest Resources Assessment 2010*. Rome: FAO.; United Nations Population Division. 2009. *World Population Prospects: The 2008 Revision*. New York: UN Population Division.

Growing populations mean increased demand for food, and a corresponding need to convert forests to agricultural land.⁸ Land shortages in traditional farming areas result from the combination of several factors—among them a growing number of people, a high population density, and the accumulation of previous population growth.⁹

Most land conversion from natural states to human uses is happening in the developing world, where population growth is most prevalent.¹⁰ In 2002, approximately 47 percent of the Brazilian Amazon was under some type of human pressure, leading to land-use conversion, forest loss and degradation, and rapid changes to the regional landscape.¹¹ In most developing countries, the highest fertility occurs in remote, sparsely settled regions. These forest frontier areas often have fragile ecosystems, and rapid population growth contributes to land conversion for agricultural use. Although agricultural productivity has generally increased globally, it has hardly kept the pace with population growth. In much of the developing world, population growth has negatively impacted food security.¹²

Increased demand for fuel wood for household consumption is a primary driver of deforestation in the populous regions of East Africa and South Asia.¹³ Demand for forest products continues to increase globally, and will continue to increase in line with growth in population and income.¹⁴ In some parts of sub-Saharan Africa with high population densities, the demand for wood has already outpaced local supply. This leads to challenges in access to wood for daily household needs such as cooking and heating.¹⁵ Slow economic growth will impede the switch to non-wood fuels, and the demand for fuel wood is likely to increase with population growth.

Household age and sex composition are also important factors in land use change, as they affect the relative

availability of labor for potential forest clearing activities, such as farming and firewood gathering.¹⁶ A youthful age structure, in which a large majority of the population is younger than 30 years, may increase the momentum of a growing population.¹⁷

MIGRATION AND URBANIZATION

Clearing of forests by migrant families has been generally found to be the primary cause of deforestation, especially in forest frontier areas.¹⁸ Most of these families have moved to the edges of large, relatively intact and undisturbed natural forest, as a result of increasing population densities pushing them out of their former neighborhoods.¹⁹ Evidence shows that as household size increases, the demand for new agricultural land outside the farm grows, causing an increase in deforestation. As individuals reach adulthood and seek their own incomes, they need more land for subsistence crop production. This leads to rural-rural migration and further deforestation.²⁰

Recent studies show that while migration has a large impact, urbanization is becoming the most important driver of deforestation in the 21st century.²¹ The majority of the world's population is urban and most of future population growth will be absorbed in urban areas. The urban population is high in the developing world, currently at about 80 percent in Latin America and Caribbean. In Africa and Asia, the urban population is expected to grow from around 40 percent to 60 percent by the middle of the century.²² Evidence points to increased demand for food in urban markets in developing countries and in export markets in both developing and developed countries creating demand that drives deforestation.²³ The demands of urban populations lead to farmland expansion in rural forested areas to produce more crops and livestock, which impact forest conversion for agriculture and lead to deforestation. Diets of people in urban areas are

increasingly reliant on meat, which has driven a growing demand for farmland and increased deforestation.²⁴

The decisions of individuals, corporations and governments to cut forests could also be influenced by institutional and economic governance policies. Population growth, combined with other direct factors such as poverty, corruption, and weak property rights, contributes to forest loss and severe environmental degradation. Demand for forest and agricultural products to feed growing rural and urban populations will continue to put pressure on forests.

Policy considerations

Efforts to ease pressure on forests and manage them sustainably will require a combination of strategies that address both the direct and underlying causes of forest decline. These approaches include monetary and fiscal policies that reduce prices and demand for agricultural land and forestry products, as well as institutional reforms that address land tenure and property rights to ensure sustainable forest management. They also include measures to slow the rate of population growth, such as improving access to voluntary family planning services and investing in girls' education.

Integrated strategies that address the livelihoods of people living within and outside forests should be encouraged. Such strategies should include population, health and environment programs and aim to empower groups likely to be adversely affected by forest loss, such as women. Fulfilling the needs of the millions of women who want access to contraception would help slow rapid population growth and help women and their families to lead healthier lives. Providing women with a choice to determine their family size through investments in voluntary family planning is one way to help reduce the pressure on forests and empower millions around the world.

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