

## THEME 2

# WHY DO FORESTS MATTER?

The concepts within this theme help people understand the importance of sustainably managed forests to humans, by making connections between forests and their own lives.

### A. ENVIRONMENTAL IMPORTANCE

Forests are one of Earth's major life-supporting systems, providing a variety of critical **ecosystem services** that are critical to life:

1. Forests provide habitat for fish and wildlife.
2. Forests improve air quality by absorbing certain pollutants and releasing life-sustaining oxygen.
3. Forests **sequester** (collect) and store carbon from the atmosphere and are thus essential to the global carbon cycle. Forest products made from wood store carbon for that product's lifetime. Such carbon storage is an important strategy for mitigating global climate change, along with reducing fossil fuel consumption.
4. Forests filter sediment and toxins from surface runoff and are critical to the water cycle, due to their role in **evapotranspiration** at a very large scale.
5. Urban forests moderate temperatures by helping to reduce the urban heat-island effect. Trees reduce air temperature by altering wind speeds, creating shade, and blocking solar radiation. In addition, trees transpire moisture into the air and cool it.
6. Urban trees filter water and mitigate stormwater runoff.
7. Forests maintain soil through the development and retention of soils. In turn, soils contribute to forest health.
8. Forests are living laboratories that provide the opportunity to study ecosystems, conservation, and natural resource management.
9. Forests support other ecological systems, contributing to the health of waterways, oceans, and non-forested ecosystems all over the world.
10. Many forest products are reusable or recyclable, and they store carbon. Wood products can have a lower environmental impact than alternatives when evaluated from a full life-cycle perspective.

### B. SOCIAL IMPORTANCE

Understanding how forests shape local communities and enhance our health helps people recognize the value of forests to society.

1. Historical perspectives on the contributory role of forests help build our understanding and personal connections to forests. They can also guide decisions to manage forests for future generations.
2. Indigenous people have lived in and relied upon forests since time immemorial for food, medicine, and spiritual connection. Today, Indigenous people continue to rely on forests in a similar manner. The traditional ecological knowledge that Indigenous people carry is invaluable in understanding forests.
3. Forests have always been important to people who live on the land and within forest-dependent communities, including Indigenous Peoples.
4. Forests are the source of products that people use every day (e.g. paper, tissue, furniture, food, clothing, house framing, and more.)
5. Forests offer renewable materials, such as paper products, corrugated cardboard, cross-laminated timber, and biofuels to support global sustainability.
6. Individuals hold different values concerning forests and their uses, based on their personal experiences and connections with the forest.
7. Forests provide excellent playgrounds for outdoor recreation, including hiking, fishing, canoeing, camping, hunting, and more.
8. Trees in urban spaces promote healthy, active lifestyles and increase the amount of time that people spend in nature. Having more trees in an area is associated with lower rates of asthma and respiratory illness in urban populations.

9. When people spend more time in forests, it can improve their physical health, including their heart health, their brain and lung function, and their capacity to fight disease. Trees reduce skin cancer risk by providing shade.
10. The forest can contribute to improved mental health, reduce stress levels and promote an overall sense of security and wellbeing.
11. Forests play an important cultural and spiritual role to many people, including Indigenous Peoples.
12. Valued uses of forests include consumptive (e.g. hunting, berry picking) and non-consumptive (e.g., bird watching, hiking).



## C. ECONOMIC IMPORTANCE

Forests provide many economic benefits to people by generating materials, creating jobs, providing investment opportunities, and creating and adapting to new market opportunities. Understanding the importance of working forests for economic livelihoods at various levels helps to increase people's understanding of the overall value of forests. Forests are a renewable resource. Sustainable harvest management and reforestation ensure that we will be able to enjoy the economic benefits of jobs, products, and revenue for generations to come.

1. Historically, Indigenous Peoples built and maintained sustainable forest-based economies, growing a rich body of traditional ecological knowledge in the process.
2. The forest sector generates diverse employment opportunities for foresters, scientists, harvesting professionals, truckers, factory workers, engineers, architects, wildland firefighters, carbon modelers, and many more.
3. The forest sector makes significant and sustainable contributions to the GDP in Canada and the United States.
4. Forests provide multiple economic benefits that include financial returns to owners and investors. They also provide ecosystem service benefits such as carbon storage, clean water, recreation, and tourism.
5. The forest sector is diverse and growing. It provides critical resources and products to the global marketplace, including lumber, plywood, engineered wood products, packaging, paper, and fabric.

6. Innovative new forest bioproducts include green chemicals, bioplastics, biofuels, wood and glass fiber, and carbon fiber made from trees. These products can be made from manufacturing leftovers, harvest residues, trees that were thinned from urban and forest stands, or trees that were damaged or killed by fires, insects, and disease. Such sustainable use of forest products can offer solutions to global challenges.
7. Economic returns to forest landowners are important because they provide an income that allows the landowner to maintain the land as forest, rather than selling it for non-forestland uses (e.g., development).
8. Forests are essential to the growth and health of a green economy, defined by the United Nations as low carbon, resource efficient, and socially inclusive. Forests provide income for local, state/provincial, national, and international economies.
9. Urban tree cover provides green infrastructure that shades buildings and hard surfaces and manages runoff entering stormwater drainage systems. Green infrastructure mimics natural landscape features and can capture, retain, and reuse water on site. These are valuable economic benefits. Tree canopy can also filter particulate matter and pollutants, reducing municipal costs.
10. Companies increasingly find that sustainability is a core element to a successful business strategy, as consumers and investors are increasingly aware of the private sector's environmental, social, and governance impacts.