

FORESTS AND BIODIVERSITY

All forest types from tropical to boreal, offer a huge diversity of habitats for plants, animals and micro-organisms. However, these biologically rich systems are increasingly threatened, largely as a result of human activity. We encourage countries to investigate their local and national forests, discover why they are so important biologically and investigate ways of helping to protect them. We also encourage countries to learn about the ecological web, knowledge and understanding of ecological interplay between single species, within different ecosystems and within bigger areas with many specific structures leading to a better understanding of nature's processes.



Learning about forest Romania

FORESTS AND CLIMATE

Forests are by far the greatest CO₂ cleanser we have on Earth. We encourage countries to examine forests as carbon storage facilities and the importance of reforestation. To promote activities that have a goal of investigating local conditions. Work on activities connected to the use of wood as an energy source, carbon storage, and a building material.



Learning about forest Cyprus

FORESTS AND COMMUNITY

Forests have always been of great importance to people and their communities. Our ancestors got their food by hunting and gathering plants from the forests. Before people began to clear forests for farming and for land to build on, forests covered about 60% of the Earth's surface area. Today, forests cover about 30%.

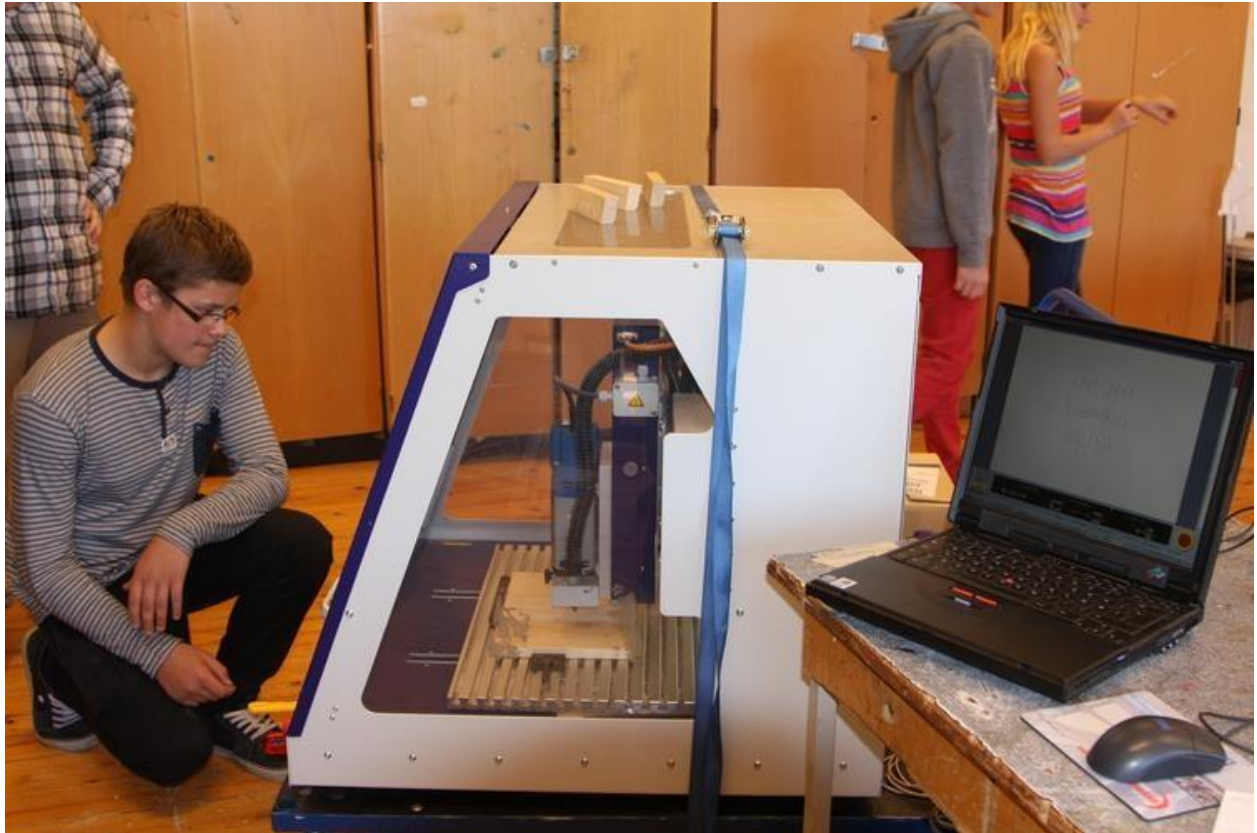
Despite the developments of civilization, people still depend on forests for their survival. Forests provide a wide range of products not only timber and firewood but also food, medicine and fibre. Communities around the world are linked to forests through products and associated livelihoods; we encourage schools to explore these links. We also encourage schools to examine the communities at risk of losing their homes due to illegal logging and agriculture. Investigate ways of alleviating poverty through sustainable forestry, while improving livelihoods and creating green jobs. Where possible explore indigenous communities/engage with local communities and share their knowledge and expertise.



Learning about forest Iran

FORESTS AND PRODUCTS

The forests provide a range of resources we depend on. It would be impossible to get through a day without using something that derives from the forest. It could be firewood, newspaper, furniture, medicines or food. These are all products we can directly relate to forests, but they also cater for less obvious benefits and services. We encourage countries to explore the endless resources and opportunities that forests provide.



Learning about forest Norway

About forests and water: forests play a vital role in sustaining water resources and aquatic ecosystems

- Forests act as giant sponges, soaking up rainfall during wet seasons and releasing it slowly during drier times.
- Forests help reduce the severity of flash floods downstream through the sponge effect and by blocking the path of the water with tree trunks, branches and other forest litter.
- Forests provide natural filtration and can help improve stream quality and watershed health by decreasing the level of storm water runoff and pollutants that reach local waters.
- Trees absorb nutrients and pollutants and transform them into less harmful substances.
- Forests maintain high water quality by minimizing soil erosion and reducing sediment. In contrast, deforestation often increases soil erosion which results in higher sediment concentrations in the runoff and siltation of watercourses.
- Forests recycle rainfall and groundwater to support continental-scale and intercontinental-scale hydrological cycles. Deforestation and forest degradation in one area can have an impact on rainfall patterns in other parts of the world.

Forest disturbance can have a profound effect on the hydrologic, geomorphic and ecologic processes. Disturbance can include both natural (e.g. drought, disease, wildfire, storms) and human (e.g. land conversion, agriculture, timber harvesting). Natural disturbances are becoming more frequent and catastrophic due to climate change. This, together with growing human disturbance will affect the quality of water and its availability.

We encourage countries to examine the relationship between forests and water and to investigate the challenges in maximizing the wide range of multi-sectoral forest benefits (domestic, agricultural, industrial, and ecological) without detriment to water resources and ecosystem function. Most importantly, we encourage countries to come up with practical solutions that help ensure high water quality and help raise awareness about the importance of protecting our forests.