

THINK NAMIBIA

POSTER 4: **RENEWABLE ENERGY INNAMBIA** 



Energy is responsible for the growth of food and for providing warmth and light. It keeps people alive, it transports them, provides fuel for their engines and electricity in their homes. Energy is what keeps economies of the world running.

Primary energy sources take many forms, including nuclear energy, fossil energy (e.g. oil, coal and natural gas) and renewable sources such as wind, solar and hydropower. These primary sources are converted into electricity, which flows through power lines and other transmission infrastructure to the end user.

More than 1.3 billion people worldwide still lack access to the electricity they need to raise their standard of living, and experts predict that climate change will worsen the situation. The coal, oil, and natural gas that power the majority of electricity generation produce more than one-third of global greenhouse gas emissions. The amount of carbon dioxide (CO2) emissions from the energy sector has been increasing by approximately 4 % per year, on a world scale.

In Namibia, most of the energy is consumed in the transport sector and most of the CO2 emissions produced by Namibia's energy sector comes from transportation. The second largest CO2 emission source is fishing, followed by industry and electricity generation.

## **THE CHALLENGE FOR NAMIBIA**

In Namibia, energy is a composition of liquid fuels, electricity, geothermal energy, gas, coal, solar water heaters and cookers, charcoal and wood. The most dominant energy sector in Namibia is the liquid fuel sector, which includes petrol and diesel. It accounts for about 63% of total energy net consumption, followed by electricity with 17% net

consumption, followed by coal with 5%. The remaining 15% is from other types of energy such as solar, wood, wind energy.

Namibia only has 3 major power generation stations, with an installed capacity of about 500 MW. Namibia generates about 1,305 GWh, while it consumes more than 3000 GWh per annum. Namibia imports power from South Africa, Zambia, Zimbabwe and Mozambique to cover the supply gap of electricity between what is generated locally and what is required for the country's economic activities.

The potential for social and economic development in Namibia depends on the country's ability to generate adequate energy. Electricity is extremely important for industrial development in Namibia and there is a great need for all of us to play our role in conserving it.

## NAMIBIA'S RENEWABLE ENERGY POTENTIAL

Renewable power production will play a significant role in energy systems in years to come. The shift to clean energy offers an opportunity to prevent the worst impacts of climate change, while lessening the toll that fossil fuels have on communities and vital ecosystems.

Namibia is well-placed to lead the clean energy development pathway. The country is endowed with natural resources required for (renewable) energy supplies from the sun, wind and biomass from invader bush. These renewable energy resources provide the country with a comparative advantage in terms of supporting clean energy and socioeconomic development. The current productive use of these resources is limited, but there is a growing pool of knowledge that has been developed since Independence in 1990 to inform scaling-up the use of renewable energy and energy efficient technologies. Measures to develop clean energy in Namibia will reduce greenhouse gas emissions, while also stimulating innovation and promoting economic growth and jobs.

## MAJOR SOURCES OF COMMERCIAL ENERGY IN NAMIBIA ARE:



For more information on renewable energy sources in Namibia and how to conserve energy at home, visit: www.enviro-awareness.org.na

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