

World Bioenergy 2x Larger than World Nuclear

While fossil fuels still dominate the global energy supply with a combined share of 81%, renewable energy sources have the potential of becoming the dominant sources of energy for coming generations. Bioenergy is already around twice as large as nuclear energy in the world.

Within the renewable energy sector, bioenergy is the dominant source followed by hydropower and to a smaller extent wind power, geothermal energy and solar energy. Renewable energy in general and bioenergy in particular also have great potentials of increased utilization. According to a position paper from the World Bioenergy Association the potential for bioenergy utilization worldwide in 2050 is estimated to 20-30 times the current use.

The energy supply still depends on the fossil fuels with 33% oil, 27% coal and peat and 21% natural gas. Another non-renewable energy source is nuclear energy, which represents almost 6%. Renewable energy corresponds to 13% of global energy supply and consists of 10% bioenergy, 2% hydropower and 1% wind, solar and geothermal energy.



Based on: International Energy Agency, Key World Energy Statistics 2010.

The total world energy supply has increased by 40% from 1990 to 2008, with a relatively constant share of fossil energy at around 80%. The share of coal however has increased significantly the last decade.

In order to address the problems arising from global warming, a large scale reduction in the supply and use of fossil fuels is critical. Wide varieties of renewable energy sources, as well as a more efficient use of energy both need to be adopted all over the world. A large share of the coal based electricity production can potentially be converted into biomass based electricity production. Combined heat and power plants (CHP) that use surplus heat from the electricity production to heat buildings or whole cities is one way of minimizing energy losses and thereby using the energy efficiently. Biomass based CHP is successfully adopted in many cities in the Nordic countries.

For the first time since 1982 the global demand for energy actually decreased in 2009, especially significant within the OECD countries. Oil demand is estimated to have decreased by 3 % compared to 2008. Coal demand decreased heavily in Europe and North America, but increased globally with around 2 % mainly due to a large increase in China.



Based on: IEA Energy Balances of non-OECD countries 2010 and BP Statistical Review of World Energy, 2010.

The supply and use of renewable energy (bioenergy, hydropower, wind, solar, geothermal) is increasing, and need to increase strongly in the near future, in order to replace the non-renewable energy sources used today. Since 1990 the worldwide supply of renewable energy has increased by 42% from around 13.000 to almost 18.500 TWh (1 TWh = 1 billion kWh), and now represent 13% of the total worldwide supply of energy.

Asia is the dominant supplier of renewable energy, followed by Africa and North America. The largest increase however is seen in the EU, where renewable energy has more than doubled since 1990. Both Africa and Latin America have increased their supply of renewable energy by more than 50%.



Based on: IEA Energy Balances of non-OECD countries 2010 and BP Statistical Review of World Energy, 2010.

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World Bioenergy: 29-31 May 2012

Once again Sweden and the city of Jönköping will be the international bioenergy focal point hosting the 5th edition of World Bioenergy 29-31 May 2012. This major global bioenergy get-together is based on the unique "Taking you from Know-How to Show-How" concept, combining tradeshow, conference sessions, field excursions and match-making into one comprehensive event.

www.worldbioenergy.com