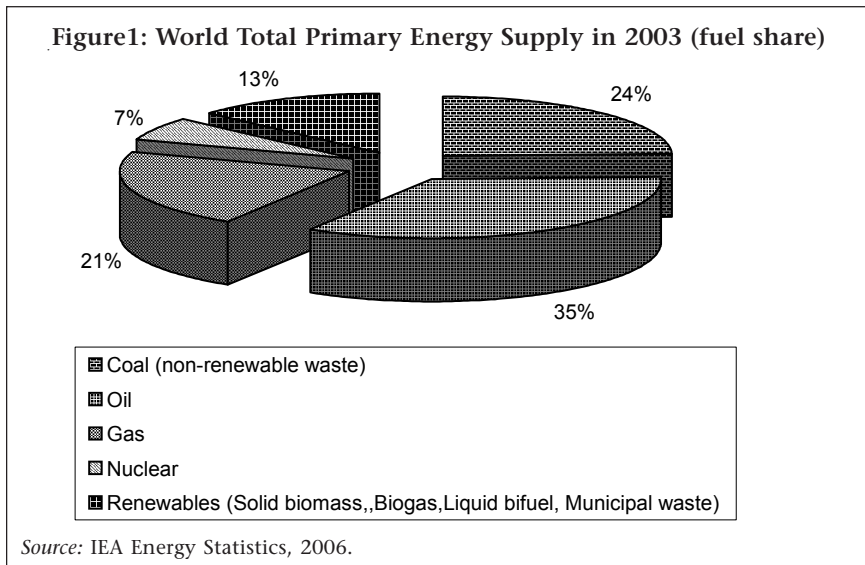
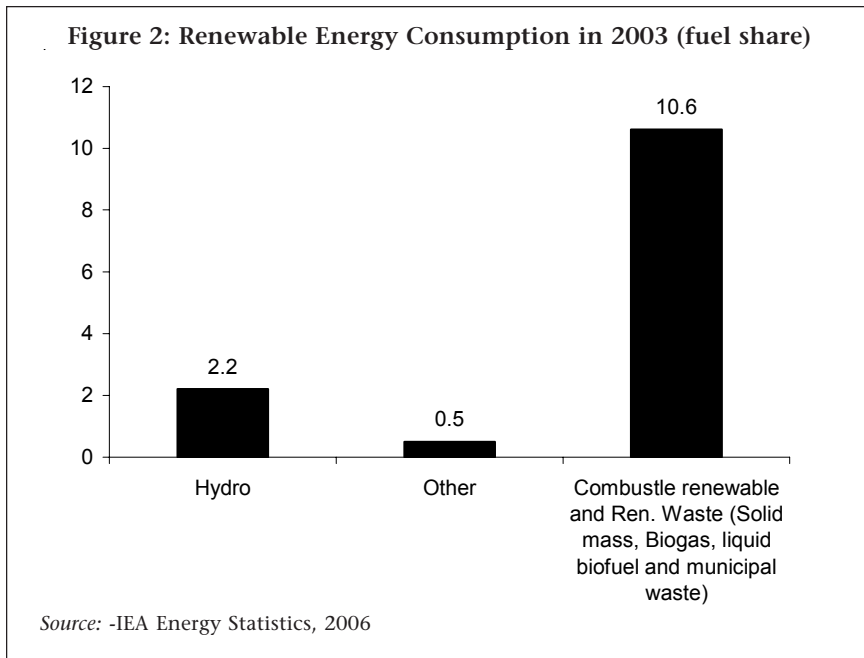


## Global production and supply scenario of biofuels

Biofuels are an eco-friendly and alternative fuels prepared from domestic renewable resources. The global renewable energy market has expanded over the years. However, statistics on this are often clubbed with the wider concept of combustible renewable waste (CRW). This covers solid biomass, biogas, liquid biofuel and municipal waste, apart from biofuel and biomass-based energy sources. According to International Energy Agency, IEA (2006), renewable energy occupied 13 per cent of the global primary energy supply. Out of this, 80 per cent of the total renewables come from CRW and 16.2 per cent come from hydro power plant-based sources. In the combustible renewable waste, 97 per cent is based on biomass (see Figures 1 and 2).



\* Prepared by Bijaya Kumar Sahu, Researcher, RIS.



Among all biofuels, bioethanol has the highest demand. Its production in 2005 is estimated to be 46 million litres, of which 70 per cent is used as fuel (see Table 1). Brazil has a marginally higher share around 36.3 per cent in the global production followed by the United States (36 per cent). Rest of the players have a very low share in terms of production. In the European Union a greater policy emphasis is being attached to the development of biofuel, as a viable option. Spain, Sweden and Germany are among the top bioethanol producers in EU.

**Table 1: Bioethanol Production in World**

Country	2004 (Million in litres)	2005 (Million in litres)	Percentage in 2005
Brazil	14.6	16.7	36.3
United States	14.3	16.6	36
European Union	2.6	3.0	6.5
China	3.7	3.8	8.2
India	1.7	1.7	3.6
Africa	0.6	0.6	1.3
World	41.3	46.0	100

Source: Commission of the European Communities, 2006.

**Table 2: Feedstock for worldwide production of biofuels**

Source	Country	World wide production (2003-04) in MMT*
Palm kernel	Malaysia	3.50
Soybean	USA, France	31.83
Rape seed	EU, USA, Canada	12.57
<i>Jatropha</i>	India, Nicaragua	NA
Cottonseed	Greece	3.90
Used frying oils	Australia	NA
Sunflower	USA, Italy	9.42
Corn, Cassava, Rice	China	NA
Olive	Spain	2.81
Sugar cane	Brazil	14.8©
Linseed	Spain	NA

Note: - \*million metric tonnes (MMT), NA: Not Available, © Brazil produced around 14.8 billion litres of sugarcane ethanol in 2005.

Sources: RIS database.

As is clear from Table 2, different countries are experimenting with different sources to produce biofuels. Brazil is heavily relying on sugar cane, while United States is delivering major share from soybean and sunflower. EU uses soybean and rapeseed and China is exploring options such as corn, cassava, and rice. India, Malaysia and Greece rely on *Jatropha*, palm kernel and cotton, respectively.

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