International Energy Agency

within countries. This work is very much preliminary in this regard. The intention has been to examine the emissions utilising existing emission factors. It is hoped that emission factors, especially for coal, will be developed which take into account these problems.

Performing the above calculations gives the primary emission factors for coal set out in Table Four.

Table Four Coal Regional Primary Emission Factors

OECD	Total		1.09
OECD	Europe		1.11
OECD	North America		1.08
OECD	Pacific	•	1.10

The emissions for total primary energy supply are calculated by multiplying the million tonnes of oil equivalent by the relevant primary emission factor to give CO_2 emissions in the units of million tonnes of carbon.

Although there are no direct emissions of CO_2 from nuclear and renewable energy, indirect CO_2 emissions from nuclear energy (uranium mining and enrichment) and during the building of power plants, is believed to be significant (P. Okken, D. Tiemersa "Greenhouse Gas Emission Coefficients from the Energy System -Two Methods to Calculate National CO_2 Emissions", Paper for IPCC Response Strategies Working Group, 28-29 September 1989, page 17). These emissions will be noted in the total industry figures and hence fossil fuels used in the construction of such energy plants are included in the emissions inventory.

Delivered Fuel Emissions

When considering emissions further down the fuel cycle, it is necessary to take into account both the input of fuels into the production of electricity as well as the transformation and other losses. As such, a weighted emission factor is prepared for each country and each OECD region. The weighted emission factor distributes emissions which occur in the transformation process, or those that are lost in statistical differences and other losses, proportionately amongst the various end-use sectors.