

commercially viable a type of reactor, the breeder, which by using recycled depleted uranium and plutonium, could increase the efficiency of uranium usage by a factor of ten. There is further fuel potential in the combination of plutonium and thorium. World reserves of thorium, though highly dispersed, are several times those of uranium; CANDU reactors have the potential of using this element with high efficiency, assuring a significant extension of known fuel supplies.

Nuclear power generation does pose a set of serious concerns distinct from other forms of power generation, because of the particular nature of nuclear materials. For instance, complex protective systems are required to reduce the risk of accidentally releasing radioactive contaminants. Waste products from reactors require complex long term management. Protection must be provided against sabotage (and theft) which would result in radioactive release. Countries may attempt to develop nuclear explosives building upon know-how acquired in their peaceful nuclear power programmes. Despite the risks involved, however, there is no indication that the growing international trend toward increased reliance on nuclear power as an energy source will be reversed in the years ahead or that countries with potential energy shortfalls will reject nuclear power as an energy option at the risk of facing an energy shortage.

The Nuclear Export Dilemma

Within the limitations noted above nuclear technology can make a substantial and essential contribution to the energy needs of countries unable to rely for their development solely on other sources of energy. In cases where there is a demonstrated need for additional power sources and where nuclear power is cost-effective, it would seem only just that countries advanced in nuclear technology be prepared to share that