Annexure 6

Water Scarcity

Water scarcity describes an environment in which demands for water for domestic, agriculture, and industry purposes exceed its availability. Even if the donor community met all the funding demands of international NGOs for access to safe drinking water, the MDG targets could still fail through inadequate integration with the bigger water picture. “Integrated water resources management” (IWRM) is not limited to understanding the needs of these three user categories; it must extend geographically across separate but inter-related watersheds and rivers, across national boundaries and oceans. Under pressure from rising populations, more extravagant lifestyles, intensive agriculture and industrialization, water presents a most formidable global challenge. To borrow popular business jargon, freshwater is a "zero sum game". It is a finite resource over which competing interests are condemned to squabble. And in an unfair world, its beneficence is distributed by nature unevenly. The significance of water scarcity for the MDGs is that poor people tend to lose out in competition for scarce resources, typically through the pricing mechanism. Projections suggest that 1.8 billion people will live in regions classed as water scarce by 2025. Those who applaud the world's achievement of expanding food production exponentially over the last generation tend to forget the parallel demands placed on water resources. Agriculture now consumes 70% of global freshwater supplies. In India, 20% of freshwater use is extracted from non-renewable aquifers and groundwater tables are falling dramatically, a reminder that climate change is not the only cause of water scarcity. Major rivers such as the Colorado and Murray-Darling no longer flow into the sea. Others are ruined by pollution, including over 50% of the rivers in China. The concept of “virtual water” has been developed to rationalize the hidden consumption within everyday products and crops such as cotton, rice, coffee and sugar. For example, production of one cotton shirt requires 2700 liters of water compared with average daily personal use of 150 liters in Europe. Globalization is moving this embedded or virtual water around the world, often from countries which can ill afford its loss. The omission of the cost of virtual water bears witness to another failure of modern market economics and, like carbon dioxide, there are moves to quantify this water footprint for labeling purposes and input to sustainability targets. Water demand management is the opposite side of the water scarcity coin. Nowhere is the need for demand management more acute than the Middle East, where Yemen is regarded as the most water scarce country in the world. Measures found across the region include awareness programs, water pricing, pollution prevention, and recycled wastewater. The ultimate irony of water management in the 21st century is the increasing interest in restoration of traditional storage technologies, many of them dating from antiquity.