by Scott Younger

Water: The price of low investment

IN A RECENT EDITION OF THE Jakarta Post there was a poignant photograph of a mother bathing her son from a water hole dug into a dried-up riverbed in Central Java. No flowing water.

I thought to myself, is this what mankind is to face in the decades to come, particularly if the results of climate change greatly upset currently accepted rainfall patterns?

So far, Indonesia is well blessed with an abundance of precipitation, more than 3,000 m3/yr, even though not evenly balanced across the archipelago, and significantly less than 1% of the resulting potential resources has been harnessed for use.

While there are isolated areas of Indonesia off Java that have water supply problems, these could generally be resolved with careful water management. However, Java presents problems of a quite different magnitude, which have been insidiously creeping up over the years, generally because people have somehow always managed to satisfy their immediate need.

This is also highlighted by the lack of investment in the sector for nearly two decades, only about $1 billion, which compares dismally with that in telecommunications (in the order of $18 billion) or energy (approaching $14 billion) in the same period.

However, it has been realized in recent years that substantial investment is required in water, and Government planning have estimated that the amount required over the next eight years is in the order of $20 billion. Nearly half of this is to come from government budgets with the balance from multi/bilateral funding and over 30% is anticipated to come from private sector sources, although securing these in the past has been relatively unsuccessful, for reasons well understood.

Nevertheless, this is a far cry from the actual investment level of the preceding two decades! Many of today's problems have arisen from the neglect of the sector in the decade up to the 1997 economic crisis and the inability to respond in the years that immediately followed.

Meanwhile both population and industry have continued to expand and, with rapid urbanization, particularly around Jakarta and into West Java and Bánten, there have been increasing demands and strains on water supply.

Critical position

THE RIVER BASINS IN THIS REGION ARE distressed, i.e. demand exceeds supply in the dry season and there is an overall negative annual balance.

For example, the international standard for a basin has set the minimum safe level of water required per person at 14,000m3/yr; a lower level of 5,000m3/yr is considered critical and 1,000m3/yr indicates a very serious condition.

The current water balance in the Ciliwung-Cisadane basin is estimated at not much over 500 m3/person/yr, which falls below the last category, and highlights why there is such a pressure on abstraction of water from underground aquifers. This abstraction, in turn, has been responsible, for instance, for the significant levels of subsidence that have taken place in the city of Jakarta over the past 25 years and now increasingly into the surrounding areas, resulting from rapid population and development expansion.

The rate of abstraction has for a long time now exceeded that of replenishment from groundwater flow. Such action leads to densification through consolidation of overlying soft ground layers, and hence subsidence, and the increased propensity to suffer from floods, as highlighted by the World Bank.

Already well into the planning cycle, several water storage schemes including the key Karian Dam to the southwest of Jakarta need to be pushed ahead as quickly as possible.

From conception it takes many years before such large water supply projects can start delivering. It is vitally important that decision makers at all levels, whether in the legislature or government, put water issues for Java, and particularly for Greater Jakarta, at the top of their agenda. Not so long ago the Vice President said "No power, no Indonesia!" Similarly, no action on water, no real impact on poverty and ultimately no people! GA

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