

# **Knowledge, Culture and Livelihood:**

## **The Struggle for Water and People's Everyday Resistances**

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**Foreword**

**The way forward:  
Conflict resolution in the emerging water wars**

**Kevin Yuk-shing LI**

Many researchers, writers and activists, including the United Nations Development Programme (UNDP), use the term “water wars” to describe the imminent water crisis that is likely to happen around the world. According to the UNDP report, ‘water wars’ will arise in areas where rivers and lakes are shared by more than one country.

The report predicts that population growth and economic development will lead to nearly one in two people in Africa to live in countries facing water scarcity. Water scarcity is defined as less than 1,000 cubic meter of water available per person annually. The director of the one of the world’s most influential environmental research institute WorldWatch Institute, Lester Brown, believes that water scarcity is now “the single biggest threat to global food security”.

As a matter of fact, water war is not a new issue in the world. The first-ever water war is the battle between Israel and Syria since the 1960s. The wars do not only happen between countries; these are also sparked by corrupted governments, corporations, international financial institutions and local communities.

The well-known Indian research activist Vandana Shiva published a book, "Water Wars" where she listed and illustrated a number of issues that trigger the water-related social conflicts such as dams, industrial agriculture, water privatisation and water rights of indigenous people and local communities. Indeed, not only in India but also across Asia, or even all over the world, water issues are related to social instability; and therefore we need a concerted effort in resolving the conflicts.

To better understand the nature of the conflicts, a proper research approach is essential towards building a democratized decision-making process of water governance. In the Mekong River Basin where the six countries – China (and Tibet), Myanmar, Laos, Thailand, Cambodia and Vietnam – share the water resources from the 4,880-kilometer long river, we only have scarce, piece-meal and dispersed information about the relationship between livelihood and water environment.

It is a tremendous work to conduct community research in every village along the river basin and its tributaries, compile the research results, synthesize these to a core idea, and provide a picture of the inter-relationships of all aspects of people's life. IUCN's Mekong Wetland Biodiversity Programme researchers David Blake and Rattaphon Pitakthepsombut in their paper, "the Songkhram River wetlands of Northeast Thailand and participatory resource research initiatives", introduce the *Tai Baan* (villager-centered) research methodology. The main concept of the methodology is to liberate the river basin research from the ivory tower, and re-position the researcher's "object" as the "subject". By conducting the research, the villagers are empowered; and gain not only more knowledge but also more power to protect their natural resources.

Water commodification and privatization is another stream of global issue that surrounds "water wars". In March 2006, the World Bank and some corporations supported "non-governmental" water initiatives to hold the Fourth World Water Forum in Mexico City. Lee Hyun-ok, a Korean student in Cornell University, gives a report and interviews water activists, including Charles Santiago from Malaysia, Arvind Keyriwal from India, Anil Naidoo from Canada, Olivier Hoedeman from the Netherlands and Hemantha Withanage from the Manila-based NGO Forum on ADB. Hyun-ok raised some insightful questions that challenge water privatization.

The well-known water privatization critic Patrick Bond from South Africa, in his article "Water commodification: Can human rights trump

the market?", re-visits the concept of water privatization and uses the South Africa's context to illustrate the struggle. It is not only a matter in South Africa, but also in the global community and the key players i.e. World Bank and water corporations. He says, "What we find in a concentrated form in South Africa is, in fact, underway in many other sites in Africa, Latin America and Asia."

True, water commodification does not only happen in South Africa, but also in Asia. Witoon Permpongsacharoen from Towards Ecological Recovery and Regional Alliance (TERRA) gives an account of water commodification issues in Thailand, where the international financial institutions like the World Bank and the Asian Development Bank (ADB) have been playing key roles in shaping the Thailand's water policy and promoting water privatization in the country. Fortunately, the public is increasingly being aware of the problems and the movement is scrolling amid the debates over the draft law in transferring "rights to water resources to the state and the private sector".

ADB, in cooperation with the World Bank, has been a key player in shaping the social and environmental policies across Asia, especially in developing countries. Hemantha Withanage, the Executive Director of the NGO Forum on ADB, presents the ADB's blueprint in water privatization, in the name of "pro-poor" policy. He says, "The ADB notion of water as an economic good is a departure from the long-held belief of water as a right and as a common." Therefore, its support in either the water privatization initiatives or dam building in Asian countries merely reflects such an ideology. Hemantha presents analysis and critiques of ADB-funded projects and provides recommendations to the ADB – demystifying ADB's slogans and calling for realizing a true "pro-poor" water policy. In essence, it recommends ADB to abandon its basic concept of water as an economic good over a public good.

Besides calling for giving up the wrong notions of water privatization, what steps can we take to deal with water scarcity? Charles Santiago from Malaysia promotes an alternative approach to privatization in his paper, "Privatisation vs. public-public partnership in Malaysia: Corporate agenda, retreat of the state and shaping of a water crisis". He outlines Malaysia's water supply system and the problems with corporations monopolizing the whole system. While both water privatization and dam building are promoted as the solutions to the "water shortage" in Malaysia, best practice-based public-public partnership is a more effective approach

for the water resources utilization. He cites the experience of the state-controlled Perbadanan Bekalan Air Pulau Pinang (PBA) as an example of best practice of public-public partnership water management in Malaysia. According to Charles, the approach not only ensures the efficiency in water supply provisioning, water quality, accountability to the public, and environment; but also help continuously finance the much-needed water infrastructure.

Indeed, grassroots groups and NGOs are working together in many ways, not only in exposing and highlighting the hazards and impacts of destructive water development projects and privatisation initiatives, but also in engaging the various stakeholders such as the public sector to work out win-win solutions. The Tai Baan research and public-public partnership are among the possible approaches towards a real solution.

In April 2006, two of the key water activists from China were awarded for their contributions in highlighting problems and working towards solutions. Yu Xiaogang from the Kunming-based NGO Green Watershed was awarded the Goldman Environment Prize; while Ma Jun, the author of "China's Water Crisis", was named by the Time magazine as one of the 100 most influential people. Their contributions are not only limited to opening up space for public debates, but also pushing for a more open dialogue among various stakeholders before the conflicts happen. The decision-makers therefore have to think twice and conduct a more thorough research before proceeding with development projects.

ARENA Fellow Vinod Raina and Taran Khan wrote "Knowledge, culture, livelihood: Environmental security in a globalised economy", which states the main theme of this issue. The paper serves as an ideological basis of the whole discussion. Both destructive river development projects and water commodification are not the answers, and will further deepen the social conflicts. Instead, to resolve the conflicts over the use of water resources, we have to respect local knowledge, culture and livelihood. All these serve as building blocks for a world that preserves and respects a diversity of ethnicity, culture and living species.

I hope that all these articles constitute the essential elements for discussing the ways towards a participatory approach to resolving water conflicts.

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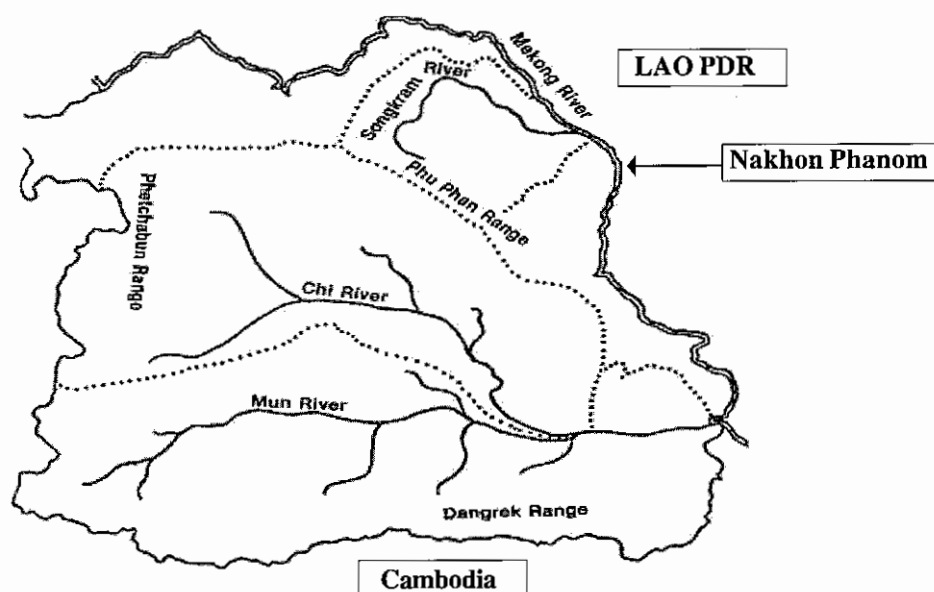


# **The Songkhram River wetlands of Northeast Thailand and participatory resource research initiatives**

**David J.H. BLAKE and Rattaphon PITAKTHEPSOMBUT**

## **Introduction**

The 480 km long Songkhram River of Northeast Thailand, rises on the forested slopes of the Phu Phan mountain range and rapidly descends to the broad floodplain of the Sakhon Nakhon Basin. Over the lower 300 kms or so of the river's course, it gently traverses some of the most significant wetland habitats in Northeast Thailand (a region more commonly referred to by Thais as "*Isaan*"), before entering the Mekong River in Tha Utaen District of Nakhon Phanom Province, opposite Lao PDR. The Lower Songkhram River Basin (LSRB) forms a complex mosaic of wetland habitats, both seasonal and permanent; riverine, palustrine and lacustrine; natural and artificial; which in recent years have started to be recognized for their significance in terms of biodiversity and contribution to maintaining local livelihoods. Of particular importance is the role and function of annual flooding regimes to the locally abundant *paa bung paa thaam*<sup>1</sup> or seasonally inundated forest ecosystem. This article explores some of the complex relationships between local people, some key institutions and the LSRB wetlands, plus the historical and present threats to the maintenance of the productivity of the wetland resources which supports the local economy.



**FIG. 2 TOPOGRAPHY OF NE THAILAND**

Compared to other parts of *Isaan*, the Sakhon Nakhon Basin is subject to relatively heavy and dependable seasonal rains, ranging from 1,600 – 2,300 mm per annum, over 90 % of which falls in the six months wet season from May to October. This pattern leads to a distinct peak in run-off during August and September each year, when rivers and streams in the upper basin swell and frequently over-top their banks causing localized flooding. As the swollen tributaries merge and reach the broad, flat floodplain in the lower basin, a backwater effect is formed caused by the influence of the Mekong River's level which hinders the drainage of the Songkhram River and contributes to widespread flooding each year. In some years, when the Mekong River's level is particularly high, there will even be a reverse flow occurring with rich, silt laden waters from the Mekong flowing back up the Songkhram River for many kilometers. In the average year, the flooding in the LSRB will cover an area of nearly 1,000 km<sup>2</sup>, but in an exceptional year (i.e. a 1 in 50 year flood); the area inundated could be up to twice as much as this (KKU, 1997). The flat topography means that a rise in water levels of just 10 centimeters can make a significant difference to the area of land inundated.

### **The “floodpulse” concept and living aquatic resources**

The complex hydrological processes of Mekong backflow and regular, dependable rainy season flooding for three to four months over a wide area, is similar to the phenomenon found at the Tonle Sap and Great Lake of Cambodia, albeit on a much smaller scale. Each year there is a lateral exchange of water, nutrients and organisms between the river channel and the connected floodplain. This annual “floodpulse”, as it has been referred to by fishery scientists and ecologists (Junk et al. 1989; Coates et al, 2003; Junk and Wantzen, 1994), contributes to the richness and variety of habitats and biodiversity, both terrestrial and aquatic, which distinguish the area. Local people throughout the Lower Mekong Basin have long harvested the abundant living aquatic resources for subsistence needs, barter trade with other local commodities and in more recent times, income too. It is near extensive wetlands like the Tonle Sap and Lower Songkhram River where the concentration of people involved in the fishery is most obvious. In both places, there are villages with economies largely depending on fishing and harvesting wetland products, and local culture, customs and traditions are closely entwined with fish and fishing practices. (Petchkam, 1997; Brenner, 2003)

### **A brief history of wetland resource usage in the Lower Songkhram Basin**

Up until the Second World War, the LSRB was sparsely settled, with villages tending to occupy higher ground nearer extensive semi-moist evergreen and dry dipterocarp forests which provided rich hunting and foraging, plus upper alluvial terraces which could be utilized for wet season paddy cultivation. The forests were dissected by many ephemeral streams and rivers, interspersed with seasonal ponds and swamps, which provided plentiful foraging for fish and other aquatic organisms. The Songkhram floodplains were mainly covered with dense seasonally inundated mixed species forests, but also areas of wide grassy plains and bamboo stands where soils were nutrient poor, which would be extensively harvested by villages nearby. However, in all probability the long period of annual flooding, isolation and prevalence of water-borne diseases and malaria, made the floodplains rather unhealthy places to live year round, so local people preferred to reside on higher ground in the wet season, but would forage and fish in the wetlands during the dry season. The plains were also important locations to raise buffalo and cattle, due to the abundant land available for grazing and water sources,

and this tradition continues today with high local ownership of large livestock still evident.

Post World War II and during the Cold War of the 1950's and 60's, Thailand embraced a semi-liberal capitalist ideology under the close guidance of Bretton Woods institutions, which encouraged the rapid opening of the rural hinterland to commerce and conversion of forested land to cash crops for export, which in turn raised funds for industrial expansion . (Bello et al. 1998) The governments of the period were almost exclusively military dictatorships which were effectively able to attract large amounts of United States and Western government aid for rural road building, irrigation and hydropower schemes, in return for following conventional development paradigms and violent suppression of communism, which was perceived by analysts as the main threat to the stability of the region. (Baker and Pongpaichit, 2005)

During the mid-1960s , US military bases were permitted to be established on Thai soil, including air force bases in Udon Thani and Nakhon Phanom, in order to expedite the growing war in Vietnam and “the other theatre” (i.e. Laos and Cambodia). This was one factor which led to a rapid population growth in urban centers around the Songkhram Basin (e.g. Udon Thani and Nakhon Phanom), which contributed to an increase in demand for natural resources, including timber for building, charcoal for fuel and fish for food. Companies bid for state concessions to clear the large hardwood trees, while local people were later given sub-concessions for producing charcoal from the remaining forest. According to one report, logging concessions peaked from 1967 to 1972, while commercial charcoal production peaked in the LSRB from 1974 to 1976. (Anon, 2004) As the road network spread and it became easier to transport natural resources from the rural periphery to the population centers, so the rate at which natural resources could be exploited and taken to markets increased. At the same time, there was a steady movement of people from other provinces in *Isaan* into the LSRB, both to take advantage of the availability of land for agriculture, but also to harvest and sell the abundant aquatic resources, especially fish.

Yet another factor in this melee for the natural wetland resources of the LSRB, which started in the 1950s and continued unabated for four decades, was the introduction of “commercial”, large scale fishing gears, which were far more efficient than their predecessors which had been developed primarily for subsistence purposes. Firstly, Vietnamese migrants into the area introduced new gears such as large raft-mounted

lift nets (*pae sadung*) and stationary trawl nets (*dtong*), placed across the flow during the flood recession, which were able to catch massive amounts of fish over a relatively short period of time. Later still, the introduction of fine meshed nylon netting onto the market, allowed villagers to string walls of netting across streams with collection points (called *gad dton*) and harvest nearly all fish moving off parts of the floodplain at the end of the flood season. Along with universally adopted finer-meshed and highly efficient, nylon gill nets, fish stocks came under increasing pressure as populations grew and more fish were being processed and sold. (Petchkam, 1997) Some villages, like Ban Pak Yam and Ban Tha Bor grew rapidly as outsiders migrated in, but were constrained in growth by only limited land being available for building houses due to the annual floods entirely surrounding the villages. Up until 30 to 40 years ago, the main transport method in and out of these lower Songkhram villages was by boat, with regular passenger and small freight boats plying up and down the river from Nakhon Phanom and the Mekong bringing in supplies and taking out fish and other wetland products. (Tai Baan Research Network, 2005)

### **The rise of agribusiness involvement in Songkhram Basin**

The growth of a road network throughout Isaan facilitated traders to take away fresh wild fish in refrigerated trucks to urban centers in other provinces, where they fetched a good price sold as “Mekong fish” in markets and restaurants. Similarly, fermented salted fish (*pla daek*) in large clay jars (*ong*), fermented sour fish (*pla som*) and fermented bamboo shoots (*nor mai som*) became local wetland products which the Nam Songkhram was widely associated with and traders came from far away to purchase. (Petchkam, 1997) It was not only fish and bamboo shoots that attracted the attention of outsiders, but plentiful and cheap land most of it under local traditional or common tenure came to be regarded as another potential source of profit to outside speculators. In the late 1970s and early 80s, agribusiness companies started to express an interest in occupying large tracts of floodplain land, to be used for planting intensive cash crops and industrial tree plantations. With the assistance of certain state agencies, local officials and intermediate land agents, they were able to buy up at low cost or simply annex extensive blocks of seasonally flooded land, which was perceived as fertile and productive. Some plots of land was reportedly bought from villagers for as little as 150 Baht per *rai*<sup>2</sup>, with villagers often being asked to sign or

use a thumbprint to relinquish their occupancy rights to the land. Using heavy machinery, the companies were able to clear the tracts of land of vegetation – mostly degraded *paa bung paa thaam* – and level it, filling in small ponds and depressions, to create broad, featureless plains in preparation for planting crops. Fences were put up, and local people were excluded from using the land for gathering wetland products, fishing and grazing livestock. Some estimates suggest that a handful of agribusiness companies occupy up to 60,000 rai (9,600 ha) of land in the Songkhram Basin. (Watershed, 1999)

At the same time, the companies established several processing factories nearby, one located in Sri Songkhram District, Nakhon Phanom Province for canning tomatoes, and another in Segaa District, Nong Khai Province, for canning sweetcorn and tomatoes. Industrial plant machinery was imported from Taiwan at special tax-free rates, as the promotion of export-led agribusiness in Upper Northeast Thailand was in line with government policy. In the early years, large numbers of local people were employed by the companies, both in the factories and on the plantations, as tractor drivers, foremen, planters and pickers. In the mid-1990s, one of the companies – Asia Tech Group Limited promised to build a state-of-the-art pulp and paper mill for processing 150,000 tonnes/year of eucalyptus and acacia wood, which were heavily promoted locally for farmers to plant, with their rapid growth and flood-tolerant properties (Watershed, 1996; Guayjaroen, 2001). The companies' public relations efforts appeared to offer a tempting option to local people for earning a steady wage on their own land, instead of migrating to Bangkok or central provinces of Thailand, as was the norm amongst young *Isaan* people up until then.

However, the early promise of jobs and improved living standards, gradually turned to disillusionment and resentment by local communities located around the perimeter of the agribusiness plantations, mainly due to loss of access to traditional resources and a realization that they may have been swindled out of their private and common lands by the companies. (Watershed, 1996) The 1997 Asian economic crisis also played a pivotal role, as the agribusiness companies had accumulated massive debts which they could not repay and projects had to be abandoned (Bello et al, 1998), including Asia Tech's pulp and paper mill. Another factor which has been reported by some commentators (e.g. Guayjaroen, 2001) and is frequently recounted by villagers in the area was that the agribusiness companies started to lose the good faith of farmers involved

with planting tomatoes due to lower than promised prices or late/non-payment of money for produce sent to factory. The blame for financial or communication problems was often passed on to agents, who apparently acted as the middle men between the company and the farmer, but in reality had closer affiliations to the companies.

A final factor, which called into question the original rationale for locating the agribusiness factories in the LSRB, was the decline in production of the tomato plantations and factory apparently caused by low competitiveness and high production costs of Songkhram Basin canned tomatoes on the world market. (interview with factory manager of Suntech Group Company Limited, Ban Don Daeng, Sri Songkhram District, March 30, 2005) It appeared that the floodplain land was not as fertile as had earlier been assumed, and needed heavy soil amendments in the form of lime and chemical fertilizer to produce high yields. Pests were another recurrent problem which was summarily treated by chemical pesticides at first sprayed over crops by plane; but in later years as cultivated areas fell, the application method changed to spraying from tractors or hand application. In any case, in 2005 only 1,000 out of 8,000 rai (1,280 ha), reportedly owned by Sun Tech Group Company in Sri Songkhram District were being cultivated for tomato production, the rest abandoned to the invasive alien weed *Mimosa pigra* which dominated the floodplain vegetation over large tracts. (authors' observations)

### **Land reform and resource degradation**

It was not only private business interests which were gradually encroaching on the *paa bung paa thaam* wetland habitats of the LSRB. The Agricultural Land Reform Office (ALRO), a state agency originally established in 1975 with the main purpose to redistribute large land holdings to the landless poor. However, ALRO has never successfully accomplished this task and ALRO land has frequently been implicated in large land scandals involving politicians and business interests. (Bello et al, 1998) In the Lower Songkhram River Basin, the Nakhon Phanom provincial ALRO has jurisdiction over at least 45,000 rai (7,200 ha) of floodplain land, originally officially designated as "degraded forest" or "vacant wasteland" (ALRO, 2004), but in actual fact comprised most of the land area formerly occupied by the biologically diverse *paa bung paa thaam*. Once land was declared ALRO administered, it was usually bulldozed clear of vegetation and allocated to local families who had registered, at the rate of 18 rai (approx. 3 ha) per household, with a land

document issued that allowed the land to be inherited, but forbid the selling of the land plot or use as loan collateral. Following distribution to local households, other state agencies would often come in to the area and construct public infrastructure, such as roads, weirs and dams for irrigation. Hence, as the land was not considered by the state to have any value as a forest or wetland, the main policy thrust was to convert it to agricultural land, principally for dry season rice cultivation (Blake, 2001). Ironically, within a few years much of the ALRO land allocated for irrigated rice cultivation had been abandoned, often due to withdrawal of state subsidies or failure of the water delivery system and the flooded forest vegetation started to regenerate. An early dominant colonizer, which seemed to thrive in the new conditions, was the bamboo species (*Bambusa* sp.) known locally as *pai gasa*.

From about 1980 onwards, as the nation concentrated on building up its status as a leading exporter of agricultural produce, including rice, cassava, sugar cane and jute sourced from the agricultural frontiers of Northeast Thailand, the rate of forest clearance increased. Between 1961 and 1985, the overall forest cover in Northeast Thailand reportedly declined from 42 % to 14 % and remaining large forest pockets were mostly confined to upland National Parks. (Vitayakorn, 1993) However, there is evidence to suggest that the most rapid clearance and wholesale conversion of the LSRB floodplain land came at a slightly later stage to other parts of upland *Isaan*, as indicated by the table below.

**Table 1. Land Use Changes across 739 km<sup>2</sup> of floodplain land in Lower Songkhram River Basin between 1989 and 1998**

Land Use Types	1989		1998		Land use changes (%)
	Area (km <sup>2</sup> )	%	Area (km <sup>2</sup> )	%	
1. Urban land	10.27	1.39	16.11	2.18	+ 57.38
2. Paddy	348.12	47.12	353.81	47.89	+ 2.26
3. Field crop	59.03	7.99	67.38	9.12	+ 14.02
4. Forest	113.70	15.39	73.58	9.96	- 35.33
5. Disturbed forest	33.62	4.55	9.60	1.30	- 71.30
6. Bamboo forest	22.98	3.11	12.12	1.64	- 47.13
7. Disturbed forest	-	-	4.51	0.61	-
8. Idle land	105.94	14.34	138.89	18.80	+ 21.16
9. Marsh & swamp	21.65	2.93	13.30	1.80	- 38.69
10. Water Resources	23.49	3.18	49.50	6.70	+110.73
<b>TOTAL</b>	<b>738.80</b>	<b>100.0</b>	<b>738.80</b>	<b>100.0</b>	

Source: Chutiratanaphan and Patanakanok, 2001



Table 1 shows that land use categories of “forest”, “disturbed forest” and “bamboo forest” (this latter category almost entirely relates to seasonally inundated forest area) have declined by a total of 35 %, 71 % and 47 % respectively over a mere nine year period. At the same time, marsh and swamp areas (i.e. natural wetlands) has declined by nearly 39 %. Looking at the other categories, maximum growth over the same time period was seen in “water resources” (i.e. artificial reservoirs), which increased by 111 % to almost 50 km<sup>2</sup>, urban land went up by 57 %, followed next by “idle land” increasing by 21 %. This latter category attests to the high rate of abandonment of agricultural land by both local villagers and agribusiness interests, following conversion from forest or wetland, which is still a predominant feature of the LSRB. Interestingly, while the sharp increase in water resources appears to be closely correlated with declines in forest and natural wetland resources, there has not been a corresponding increase in productive paddy land as a result of more irrigation sources available. Yet, the most common justification for construction of water storage reservoirs given by state agencies responsible (like the Royal Irrigation Department and the Accelerated Rural Development Office) has been provision of water for “agricultural use” in the dry season. The increase in “field crops” of 14 % is likely to be attributable chiefly to non-irrigated cash crops such as sugar cane and cassava grown on upper alluvial terraces and to a lesser extent, some irrigated high value crops (such as tomatoes and sweet corn).

### **Villagers begin to assert their rights**

As competition for land and natural resources intensified, in what previously had been a rather sparsely populated area, a growing number of villagers started to feel negative impacts from declines in availability of previously common products. In particular, several villages located nearby to the large land holdings of agribusinesses, were subject to loss of access to wetland resources and hence suffered a decline in livelihood. (Guayjaroen, 2001) One village in particular, called Ban Dong San in Agaad Amnuay District, Sakhon Nakhon Province, has attracted a fair amount of attention due to a land conflict between villagers and one of the large agribusiness companies, leading to a protracted court case. In 1990, Sun Tech Group Limited started buying up large plots at cheap prices via brokers from villagers on the *Tung Phan Khan* floodplain near to Ban Dong San using dubious means of acquisition. (Anon., 1996) The company’s president justified the decision to plant eucalyptus in the floodplain during an interview thus:

*"The Songkhram River has a problem with flooding in the rainy season. Other crops or trees cannot be grown on the lands.....My objective was to experiment with eucalyptus, because I had an idea that eucalyptus could grow in areas where other crops could not grow. My objective was to change the flooded areas to forest by planting eucalyptus."* (Watershed, 1996).

The company bulldozed and planted about 4,000 rai (640 ha) of land at *Tung Phan Khan* to eucalyptus and *Acacia mangium* plantations, but only 1,500 rai became established, due to protracted flooding each year. (Guayjaroen, 2001) *Tung Phan Khan* floodplain had previously been a fertile site for fishing, gathering of many edible and useful wetland products and an important dry season area for livestock grazing. Following the acquisition and conversion of the floodplain to industrial tree plantation, a group of Ban Dong San villagers challenged the rights of the company to ownership of the area that had hitherto been public lands with no land title documents. After many petitions to government agencies at all levels of government and a six year court battle that ended with the Sakhon Nakhon provincial court finding in favor of the villagers, the company was ordered to return the disputed land to Ban Dong San village as public benefit land. The company felled and removed most of the eucalyptus plantation in 1998, leaving the remaining trees to be harvested by the villagers of Ban Dong San and added to the village development fund. In 2004-05, the returned land on *Tung Phan Khan* floodplain was divided into sectors by the village committee, with over 2,400 rai being converted to rice fields and split amongst village households at a rate of 20 rai per family, while the other 2,000 rai or so is preserved as community forest (authors' observations).

During the 1990's, the Songkhram river itself, the diverse fringing floodplain wetland ecosystem and livelihoods of local communities started to face new threats from another direction. There had been grand plans to build a series of dams to create a massive irrigation project across the Songkhram Basin since at least the early 1980s, when the Interim Committee for Coordination of Investigations of the Lower Mekong Basin (a forerunner of the Mekong River Commission) commissioned a set of studies for consultancy companies to look at the potential for regulating the Songkhram's flows for irrigation and flood control. (NEDECO/TEAM, 1983) However, the ambitious original project proposal to develop seven smaller dams on tributaries and the upper mainstream, reclamation of

floodplain lands by building polders, plus a large “regulator” watergate structure near the Mekong confluence, was not adopted at the time. But later, an adapted proposal involving a dam near the confluence forming a large shallow reservoir of 255 km<sup>2</sup> to provide pumped irrigation to over 900 km<sup>2</sup> of surrounding land was taken forward by the Department of Energy Promotion and Development (DEDP) for further study and possible development at a projected cost of approximately US\$ 400 million. (DEDP, 1995)

Due to its size, the Nam Songkhram Project (as it was known) required an Environmental Impact Assessment (EIA) before it could proceed. The initial project plan, carried out by a consultant company, was rejected by the National Environment Board in 1994 leading to a reduction in the height of the dam crest by three meters. (KKU, 1999) The new project design prompted a second EIA to be carried out by a team of consultants from Khon Kaen University. Although this recommended various environmental mitigation measures, the report still concluded that the project would have a beneficial impact on capture fisheries and the loss of forest resources was not critical, as the large reservoir would provide new livelihood opportunities in irrigated agriculture to those villagers formerly dependent on the *paa bung paa thaam*. (KKU, 1999) The studies were almost entirely carried out by academic experts from outside the Songkhram Basin, who mainly used formal and inflexible data collection methodologies (with heavy reliance on questionnaires) which minimized the role of local participation and indigenous knowledge in the process and reports produced. Information was extracted and not fed back to villagers, leading to suspicions that the project would not necessarily reflect their aspirations or potentially harm their livelihoods. As communities were heavily dependent on fishing for food and income many started to ask questions about whether the dam really would provide more fish, or whether it might cut off the migration route of fish between the Mekong mainstream and flooded forest habitats where numerous species spent the wet season to spawn and feed, before returning downstream in vast numbers during the flood recession. (Watershed, 1999) In addition, there were seven villages expected to be flooded by the reservoir and would have to be relocated, but suitable alternative locations could not be guaranteed by the government.

## **Emergence of a local environmental conservation movement**

A group of villagers from some of the communities that would be directly impacted by the Nam Songkhram Project joined together with support from a local NGO and formed a “Songkhram River Conservation and Rehabilitation Club”. (Watershed, 1999) This villager-led movement became a powerful local voice in opposing the Project and joining a coalition of other state infrastructure project-affected villagers in other river basins of *Isaan*. In 1998 a public hearing was held to hear the arguments for and against the Nam Songkhram Project, and it became clear that there were serious, unaddressed deficiencies both in the Project’s rationale and EIA conclusions (Lohmann, 1998); eventually leading to the Project being shelved in March 2002 by a Cabinet decision which cited environmental problems and poor value for money as being the main reasons (Anon, 2004). Around the same time, the DEDP was dissolved during a restructuring of the Ministry of Science, Technology and Environment which became the Ministry of Natural Resources and Environment. Despite the apparently final decision to shelve the Nam Songkhram Project, two years later a consultancy company report for the Department of Water Resources was still considering the merits of building the Nam Songkhram Dam at the river’s mouth and estimated that there was potential to bring 1,036 km<sup>2</sup> or 33.8 % of the entire LSRB under irrigation (Department of Water Resources, 2004) and the Thai Prime Minister also gave weight to resurrecting the dam project, during a speech at Sri Songkhram District in August 2005. The actual Project plans are now under the stewardship of the Royal Irrigation Department, which has shown interest in proceeding with it at some point in the future. There is also a plan to include the Nam Songkhram Basin, in the so-called “Water Grid Project” currently being considered by the Thai government, which would potentially involve inter-basin and trans-national boundary movement of water from Laos into Northeast Thailand. (Samabuddhi, 2005)

## **Songkhram wetlands importance are recognized internationally**

By the turn of the millennium, there were growing concerns amongst diverse actors about the future health and status of the Mekong River, its major tributaries and the riparian communities. This coincided with an increasing awareness of the role of living aquatic resources in the diets and livelihoods of local people and the potential threats posed by

upstream water development projects were more widely publicized. (Osborne, 2000; Roberts, 2001; Sverdrup-Jensen, 2002; Bush, 2003) More studies and projects addressing natural resource conservation and sustainable development concerns, especially surrounding water management in its many guises were started during the last decade, while civil society in Thailand progressively strengthened. During 2003, the LSRB was selected as the Thailand "Demonstration Site" for piloting good wetland conservation practice under the national component of the Mekong Wetlands Biodiversity Conservation and Sustainable Use Programme (MWBP)<sup>3</sup>. A core component of the Demonstration Site's early priority in dealing with some of the issues facing local people dependent on wetland resources for their livelihoods was to trial a participatory, grass-roots approach, called "Tai Baan Research". Tai Baan<sup>4</sup> Research represents a methodology which draws on local people's wisdom, experience and traditional culture in (first) assessing and (later) monitoring natural resources and livelihoods at the community level for improved planning processes.

Tai Baan Research originated as a distinct methodological approach to record local knowledge in 2001, amongst communities impacted by the notorious Pak Mun Dam, a World Bank supported and financed hydropower project built in Northeast Thailand in the early 1990s. Previously vibrant fishing communities lost their chief means to make a decent livelihood, following serious declines in fish populations after the completion of the dam, acting as a major barrier to fish migrations and the permanent flooding of numerous sets of rapids which had previously acted as important fish habitats. (Amornsakchai et al, 2000) Local people had earlier lost faith in state-led pre- and post-impoundment social and environmental studies at Pak Mun, feeling they inadequately reflected their own indigenous observations, concerns and accumulated wisdom about the river and its aquatic life. They expressed keen interest to conduct their own research when offered the chance and were subsequently assisted by a Thai-based NGO called South East Asia Rivers Network (SEARIN). (Tai Baan Research Network of the Pak Mun Assembly of the Poor, 2002) The villagers that conducted the research were termed the "Researchers", with help in recording the data from a few NGO staff and student volunteers, who were termed "Research Assistants". Over the course of a year coinciding with a trial opening of Pak Mun's gates, the Tai Baan Research was able to effectively document the rich body of local ecological knowledge that existed and note the

rapid recovery of the rapid habitats and fish populations that occurred once the river was allowed to flow freely. Despite the evidence presented by the Tai Baan researchers about the impacts of the dam on their livelihoods and local ecology, and the ability of the riverine ecosystem to partially recover if the dam was opened, the Thai cabinet decided to resume power generation operations in 2002 for eight months of the year, only allowing the river to run freely for four months as a minor concession to long-running local protests calling for the dam gates to be opened permanently.

### **Tai Baan research is adopted at several sites across Thailand and Cambodia**

In 2002, the Tai Baan research methodology spread to villager groups at Rasi Salai, a dam located further upstream on the Mun River from Pak Mun, and to Chiang Khong District next to the Mekong River in northern Thailand, where villagers were being negatively impacted from changes in river levels caused by upstream developments related to mainstream hydropower dams and a navigation improvement scheme. The following year, a Tai Baan Research Network group was established in four villages next to the lower Songkhram River, with guidance from SEARIN and the locally-based Nakhon Phanom Environmental Conservation Club, and funding from IUCN's Water and Nature Initiative (WANI), under Thailand's MWBP Songkhram Demonstration Site. Since then, Tai Baan research models have been adopted at other sites in Thailand, including the Salween River and Yom River in northern Thailand, and most recently in 2005, on the Mekong at Stung Treng in northeastern Cambodia. Hence, there is now an active network of groups participating in river-based research and exchanging the results of that research across the Lower Mekong Basin and further afield. While the concept and rationale for Tai Baan Research is easy enough to grasp, the actual practice and steps involved are relatively complex and take a lot of time and contact at the village level. A summary of the main Tai Baan Research steps are presented in Box 1 below. It is important that the villagers themselves decide on the research agenda and issues, to adequately reflect what local people consider as significant. In the case of the Songkhram Tai Baan researchers, the villagers chose to research six issues: ecosystems, fish species, fishing gear, flooded forest vegetation, floodplain agriculture and water management, and livestock-raising.

It should be stressed that there also has to be a suitable enabling

environment for Tai Baan Research to succeed and gain acceptance, with sufficient involvement of stakeholders and actors from local and national government agencies, NGOs and civil society groups at key stages. Hence, there has to be a regular series of progress workshops and events which allow the Researchers to present their findings to non-local audiences and receive feedback, ranging from an annual Fish Festival in Sri Songkhram District, to an international gathering at the IUCN's World Conservation Congress in Bangkok in November 2004. Publication of peer-reviewed books, whether presenting an overall description of the research findings or focusing on particular research issues, allows another important route of knowledge dissemination and increases local ownership. In the last year, the MWBP Thailand Demonstration Site has published two books in Thai language: one titled "*The Ecology and History of the paa bung paa thaam of the Lower Songkhram Basin*" (Tai Baan Researcher Network of Lower Songkhram Basin, 2005a) and a second more recently released book titled, "*Fish species in the paa thaam: local knowledge of fishers in the Lower Songkhram Basin*" (Tai Baan Researcher Network of Lower Songkhram Basin, 2005b). These books have been recognized by local stakeholders as important sources of indigenous knowledge on cultural and biological diversity and are now being considered by local educational authorities for future inclusion in local curriculums for schools at primary and secondary level. This would clearly provide a counterbalance to the present strong influence from outside, remote and often irrelevant information sources for children, while the immediate society, culture and environment has remained largely unexplored as a valuable source of learning material to foster understanding and interest amongst the next generation.

The Lower Songkhram River Basin wetlands are gradually gaining more recognition for their importance as one of the last functioning floodplain ecosystems, with the many roles and functions that they provide as a source of biodiversity and livelihood for local villagers. In February 2006, the Office of National Resources and Environmental Policy and Planning (ONREPP) announced that the government was considering proposing the Lower Songkhram River Basin as a future Ramsar Site, thus increasing the international visibility of the wetlands significantly. The current threats to the wetlands resulting from inappropriate land use, poor water management and unsustainable resource use should not be underestimated and need closer attention by relevant authorities. Tai

Baan Research is one tool by which local people can participate in assessing local wetland resources and generating knowledge that can be used for more informed decision-making by local and provincial authorities. It can be fed into planning processes, in particular by Sub-District Administration Organisations (TAOs), which are increasingly being given greater authority and budgets for implementing local infrastructure development schemes, including water management.

Tai Baan Research clearly demonstrates the close links between aquatic resources and local livelihoods, economy and culture, which have been consistently ignored or downplayed in past development decisions. Tai Baan Research also builds capacity and awareness of local people, through building active resource user networks locally and nationally, allowing them to interact and exchange with groups facing similar challenges in other basins. Hence, Tai Baan Research is more than just participatory resource research at the local level, but provides an opportunity to link issues across a wider spectrum of resource users and actors than has previously been possible in the past. Such approaches may offer local authorities and more senior government planners and policy-makers new options with regards to sustainable development and conservation of Mekong Basin wetlands, based on a more inclusive, holistic mix of scientific and local knowledge. The challenges facing the Mekong Basin are significant and complex, but not insurmountable with adoption of new approaches to development which learn from past mistakes, are more equitable and sustainable, while putting a more realistic value on the cultural and environmental heritage.

### **Summary of Steps in Tai Baan Research**

Tai Baan (TB) Research is a dynamic and frequently challenging approach to participatory natural resource research. It requires time, patience, perseverance and flexibility on the part of the facilitators and researchers to succeed. Below is a summary guide to the Research steps which occurred over two years. It should be stressed that the list is not prescriptive, but can be readily adapted to meet the differing local situations. (Source: Adapted from Baker, 2004)

**STEP 1:** Generate interest in TB participatory resource research amongst local target communities by holding village meetings and conducting exchange visits



**STEP 2: Generate ownership of TB research as a co-learning process, between local resource users and outside facilitators**

**STEP 3: Hold a training workshop for Research Assistants to familiarise them with their facilitation role**

**STEP 4: Formulate specific research goals or issues to study based on local needs and interests**

**STEP 5: Set-up research schedules for each village and four village network**

**STEP 6: Initiate research – compile background information on each issue area**

**STEP 7: First progress report – presentation of initial results, to local network and to TB researchers from other river basins to provide feedback and comments**

**STEP 8: Second phase research – collect more detailed information on each issue area to fill in knowledge gaps**

**STEP 9: Encourage other related activities e.g. holding environmental awareness raising events or promotion of value adding for wetlands-derived products**

**STEP 10: Second Progress Report – consolidate research findings and present to diverse outside audience, including government and NGO officials**

**STEP 11: Third Phase of research – cross-check consolidated data, including verifying and editing draft reports**

**STEP 12 – Final progress report – researchers present detailed findings on all issues to diverse audience of local and non-local stakeholders. Discuss and plan next steps in implementing local natural resource management and conservation**

**STEP 13 – Publish and dissemination of results to all interested parties in river basin, including schools and explore ways to integrate findings of research into local curriculum**

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## Endnotes

- <sup>1</sup> Paa bung paa thaam is the colloquial Lao-Isaan term for seasonally flooded forest, comprised of a mixture of low trees, thorny shrubs and bamboo clumps, which was at one time found in the lower floodplains of *Isaan's* largest rivers, draining eastward to the Mekong.
- <sup>2</sup> Up until 1997, USD 1 was roughly equivalent to 25 Thai baht. A *rai* is the common unit of land measurement in Thailand, with an area equal to 1,600 m<sup>2</sup> i.e. 1 ha = 6.25 rai.
- <sup>3</sup> MWBP is a joint program of the four riparian governments of the Lower Mekong Basin – Cambodia, Lao PDR, Thailand and Viet Nam – managed by the United Nations Devel-

opment Program (UNDP), The World Conservation Union (IUCN) and the Mekong River Commission (MRC), in collaboration with and other key stakeholders. With core funding from the Global Environment Facility (GEF), the program aims to address the most critical issues for the conservation and sustainable use of natural resources in the Mekong wetlands ([www.mekongwetlands.org](http://www.mekongwetlands.org))

- <sup>4</sup> Tai Baan is a term common to the Lao ethnic groups of the Mekong Basin, from Yunnan Province in China to as far downstream as Stung Treng in northern Cambodia, literally Meaning “villagers”.



# **Interviews and report from the Alternative World Water Conference, Mexico City**

**Hyun-ok LEE**

The World Water Forum and the Alternative World Water Forum were both held in Mexico City. I, as ARENA representative, participated in the Alternative World Water Forum as an observer. I came across extraordinary energy, inspiration and people with different experiences from all over the world. This encounter convinced me that people's movements on the global scale are not dying out; that people's movements on the global scale are getting more focused, mature, substantial, and with stronger local movements. Here are the interviews with people I met at the forum.

## **Charles Santiago – Monitoring Sustainability of Globalisation, Malaysia**

Hyung Ok (H): What is the main challenge in terms of dealing with water issues? If you have any specific concern from the perspective of Asia or the Global South, please address it.

Charles (C): Challenges that one would face in a privatized environment whether you are in Asia, Africa, Latin America is water insecurity, which actually means that access to water bases on affordability. How much

water you drink bases on how much you can pay for it. Given the record of privatization, the price of water begins to increase. It makes it difficult for the poor or lower middle class to drink sufficient amount of water, in some cases, no water at all. The harshest scenario is that one day you go to work, come back, and find that you don't have any water supply any more because somebody, possibly multilateral institutions and/or governments decided that water is no longer a right but a commodity which you have to pay for, just like all other services. This is where the fundamental questions arise; should water become a commodity? Should it be transformed into a commodity? The answer is no; because the right to water is not just about having water but about life and livelihood. When you talk about right to water, what you are really saying is that 'don't deny right to life'.

A powerful ideological dimension is embedded in this challenge and this ideology closely ties to the institutions and their behavior. The government doesn't support the public sector but supports the private sector. In this environment of privatization, the state doesn't want to be a provider any more; it wants to be a regulator and loss bearer. Loss bearer means that when the company doesn't do well, they put the government money and save the private company. The same amount of money is not given to the public sector which is part of the government structure. You wonder, what is in the government's mind? The government actually kills itself. This whole logic is absurd. However, what is clear is that meetings like this – World Water Council, Asian Development Bank, World Bank, International Monetary Fund have very powerful influence on our governments. To a certain extent, it is because of the structural adjustment programs but to the greater extent, it is because most governments believe that the private sector is far more capable and efficient than the public sector.

People are saying that the whole public system is not efficient. But this is not the case. If you see the case of Penang, the water management is highly efficient – one of the best in the world. The argument that the public sector is totally inefficient is not correct. The answer to efficient management of water is not the private sector but the public sector. In fact, if you think about it carefully, once the company is privatized, who are the workers working for the private company? They are the same people who used to work in the public sector before, except the fact that they may have a new nice office which looks like more corporate and have a new executive director. Besides that, workers, their mindset, and culture are all from the public sector culture.



H: The discussion at the alternative forum was very rich and diverse. I wonder where people's opinions converged and diverged. What do you see as a common ground when people from all over the world work together?

C: Comparing to Kyoto, reclaiming the public water community and anti-privatization community have come a long way. First, we have a strong argument why privatization should not happen based on the experiences from all over the world. Second, we have built a constituency against privatization. And third, the whole notion of right to life was adapted by the world water council. This is a big shift because your enemy doesn't speak your language. If you break it down, their understanding of right to water is different from our understanding of right to water. The point is that they accepted the language and they engage with you at the level of language. The 'anti-water privatization community', if I can use this expression, has come a long way.

I don't think that we have come close in taking on big places such as Suez, World Bank etc. All we are doing is exposing their failures and contradictions. Just putting the label 'corporate globalization' on the current situation doesn't solve the problem. We really need to engage the people - in the world and at the local community - so the level of vigilance, monitoring, and confrontation against corporate robbery of water happens. Also, we need to take on water privatizing company at the level of the country. Therefore, the conflicts at the national and community levels are the final indicator of how strong you are.

In the last two years, there has been some growth in that area; but not sufficient enough. Hopefully in the next two years, more will take place. The only unfortunate problem is that while we get together and try to organize a dialogue, the speed of water privatization is getting intense and fast. We are not able to keep track of them. We really need to move faster at all levels of activism including lobby work. This is one area that we need to work on.

Second is providing alternatives. We need to develop models. We need to look into some areas and public utilities which work well, understand it, and see how some of the factors, variables, past practices of the model can be applied to other cases. Of course, there are different political and social contexts but there is something that we can learn from other cases. The best way is to develop public-public partnership. The successful ones and best practices actually have something that other cases don't

have whether it is the case of billing, managing water, public relations, treatment of the plant etc.

What also needs to happen is not only for water but generally for public services to have a more transparent system. Transparent system, governance structures in place; as well as a vibrant civil society, can lead to an efficient public utility. If civil society doesn't care about what's happening any more, no transparency, and no accountability – that's when the public sector begins to go down. Although we are focusing on water, we really need to talk about developing democracy, governance issues, transparency issues, and get people committed to the development of their own country. We have to see linkages of democratic principles, economic revenue, and efficiency requirement. Where the society is vibrant – critical about what's happening, vigilant, monitoring a particular sector – then the sector is doing well. It tells you that part of the reason that public sector fails is that civil society hasn't done its job. We have to make sure that civil society observe and monitor what's happening. We need to have a new understanding of democracy and popular participation.

H: Could you make a brief assessment of this meeting?

C: The World Water Council is essentially a non governmental organization but its power and scope is phenomenal. At the end of the NGO meeting, you have a Ministerial Declaration coming out, and on top of that, this World Water Council meeting is hosted by government. Can you imagine any other sector that the government hosts such a huge meeting and subsidizes with so much money? It tells how powerful the World Water Council is. It sets the agenda for the government as well as the private sector for the next two years or years to come. In Kyoto, the focus was financing water. This year what I heard so far is the right to water. So what they have done so far is absorb the NGO or UN languages as part of their discourse. We don't know what it means in details – the devil is in the details and we need to figure that out. They are very powerful, they are able to make the message across, and they are able to influence the government, creditors, multilateral bodies and so on. In that sense, this meeting is very important. What comes out of the meeting in the scale from 1 to 10, at least 7 would be achieved in the next following years.

What seems definitely emerging not only from the World Water Council but also from the WTO discussions is the plan or the strategy to take over the water resources. Privatization is no longer the issue. It is a

given. Now they are looking at the water resource itself. This is a problem. This would mean that at some point of time, water resources in the developing world can be controlled by somebody, say, by France, US or Japan. Water privatization is not just about small concession of 30 years. It is water itself in the developing countries that can be controlled by somebody else. This is very problematic.

Right to water has a definitional problem. What does right to water mean? Is trading of water between two groups between farmers and developers, right to water? This is part of the ADB discourse that you can trade water now. Even in this discourse, rights are there. You are given so much rights and I am given so much rights. What happens if you are trading your rights with somebody else? Say, the poor farmer has no choice but to trade their water to bigger farmers. Therefore, the meaning of right to water needs to be addressed more clearly.

Another area is the control of the resource itself which will come to the multilateral agreement to the services as well as the other bilateral trade agreements. This is the lesson that every country needs to know. When you privatize water – turn water into commercial activities – then your country's water is out for sale. You have no choice but to enter into the agreement with the foreign company, if there is a demand for it. This is actually a warning to developing countries to try to privatize water.

The alternative meeting is very important and necessary but it needs to cut down the rhetoric. How many times do you say 'down the privatization, people have no water access'? We all know that, that's why we are all here. What we have to do is to discuss the strategy of how we are going to get our water back, finding successful cases, making a showcase, and learning from them. We also can learn from unsuccessful cases. We need to look at new ways of entering into the debate; that we win the debate at the end of the day - winning in ideological sense and taking water back to the people - that's what we need to do.

Comparing to the meeting in Kyoto, we came a long way but in terms of getting water back we have a long way to go. We need more people to involve, confront, and stand up and say 'water is not commodity', 'water is right that is given'. Water is not just about water; it is about environment and ecology. The whole perspective needs to be understood. It is a long struggle. Anti privatization activists need to incorporate the environmental and ecological issues. I think that's the challenge for the next seven years.

## **Arvind Keyriwal - Right to Water Campaign in Delhi, India**

H: What is the main challenge in terms of dealing with water issues? If you have any specific concern from the perspective of Asia or the global South, please address it.

Arvind (A): I think there are systematic efforts going on in the last two, three decades by the private companies to take over the entire water sector across the world. They are supported by multilateral agencies. I don't think it is just about profits, it is a much bigger game plan. Once the water sector of a particular country goes into the hand of the private company, it's not just the issue of profit any more. It has huge political implications. It could change the politics of that country. I think there are efforts going on at the level of certain governments, corporations and multilateral agencies to have control over the water sector in certain part of the world. This is not only against human rights, but it is about the very existence of the people; not only about physical existence but also political existence. It will threaten the political processes in so many other countries. I think not only people but also governments across the world have to understand this process and challenge this.

H: Could you make a brief assessment of the meeting?

A: I am inspired by the energies among NGOs, the protest by Mexican people in the march, and by NGO people at the official World Water Forum. The protest and the march here have their own meaning but I think the real fight rise from the local level, not from the international level. If we keep our fight in the international level, I think the chance of success is very low. We would be very happy if we are able to convince the World Bank or UN to make the statement on particular issues. However, at the end of the day, is the statement our end goal? Today, we have so many statements on human rights issues by the UN; but in the villages in India, those statements have no meaning. It is the police who run the entire thing. I think the most important challenge is to strengthen the local people, to strengthen the democracy. It should be the people who decide what kind of water system and structure, and utilities they want to have. I think the focus should be there. Here, I heard that the focus of most of international NGOs was on engaging the World Bank and UN and they are trying to get certain kinds of resolution or statement. It is important, I am not underestimating their importance; but the most important focus should be strengthening local democracy. Who are the

NGOs to decide what kind of water sectors should exist? I think we have no legitimacy or we have no authority to speak on behalf of the entire world. I think the local people have to decide what kind of water system they want. It is the same follies done by World Bank and multilateral agencies. What we should do is not deciding what kind of water utilities should be in the entire world; but we should try to strengthen the democracy in the different parts of the world so that the local people decide what they want.

### **Anil Naidoo – The Council of Canadians, Canada**

H: What is the main challenge in terms of dealing with water issues? If you have any specific concern from the perspective from the global North, please address it.

Anil (A): I think the challenge that we have in Canada is similar to the challenges around the world but it plays out a little differently because of the resource issues. The common challenge is the control of water resources. First, who controls the water resources? More precisely, we are concerned whether the private company is getting concession of controlling the public water system. Second, what these private companies i.e. bottling companies such as Nestles, Pepsi and other industrial companies do with our water? We are concerned whether water is appropriated, contaminated and even drained by these private companies. For instance, in some parts of Canada, water is injected into oil reservoir to increase pressure rates and it caused great harm to the eco system – the loss of water. You can think about many things that occur in the North that is common with the South. The difference is that we are not that sensitive to the pricing issues. When privatization happens and tariff increases, it is not such a burden on the majority of the people so you don't see the same mobilization as in the South.

H: The discussion at the alternative forum was very rich and diverse. I wonder where people's opinions converged and diverged. What do you see as a common ground when people from the all over the world work together?

A: I think that the common ground can be found partially around privatization but we have to look at the common interest around the world such as right to water, human rights in general, holding non-state actor, making state actor accountable. It is the democracy question in many ways – how do we organize ourselves so that we can address what is the interests of the citizens, humanity; not the interests of a few? It is

also a fundamental human rights question as well; whether we put human rights above corporate rights. These two questions are interconnected because we need democratic mechanism to embody the human rights. The following questions are very important – do we have accountability mechanisms, forceful mechanisms to hold corporations, international financial institutions and governments to account; do we have mechanisms to remove the water issue from the trade agreement? These are common interests to see the solutions to the global water crisis because we all are affected by this crisis. Even people who live in water-abandoned area are impacted certainly by this crisis. You cannot isolate yourself with what's going on around the world.

H: Could you please elaborate more about right language?

A: If we remain stuck in the world that the powerful framed in order to continue to maintain their power and to access the capital they enjoy, we lose. When I talk about right to water, I am not talking about the right, which is given to us by the powerful institutions who controls the UN, the multilateral institutions, and so on. We are not asking for something that is given by them, we are talking about inherent rights. As I mentioned earlier we need accountable, democratic mechanism to secure these rights. Unfortunately, it doesn't exist in the current framework. We see the World Water Forum which is taken up by multilateral institutions; but this space is somehow appropriated as a representative entity for the world water issue. That's why we are fighting against the World Water Forum and the World Water Council. It is essentially a private entity and it's claiming as if it is a public entity.

We should put forward a very strong voice for the people who don't have voices. Also, to put together into the framework that we can build true solutions based on respecting human rights, nature, eco systems because water is so essential to so many aspects of our development, education, social sacred, religious, and so on. Fundamentally, it is life itself.

H: Could you make an assessment of the meeting?

A: It is a polar opposite between the official forum and the alternative forum. What was happening organically was that the social movements are engaging in water issues. It's coming out of the communities struggling around the lack of access to water or around the appropriation of water. This is the direct contrast to those who were at the Banamex (the venue of the official World Water Forum), who are the agents of the appropriation and agents of promoting market-based approach to water.

The alternative forum is open to everybody. For example, we don't have any registration fee. We have a lot of indigenous people. We are using a good portion of the funds to bring people from the indigenous communities around Mexico to the forum to get the experience. Paying 120 USD a day at the Banamex Center is absurd when most of the world live with 2 dollars a day. It is not inclusive by any stretch. It is a very exclusive club. Their agenda is to serve those within the club including private water corporations and consultant companies. It is more like a trade fair. On the other hand, the alternative forum is based on human relationships, creating networks, and putting everybody's energy together.

I am proud that we went in and challenged the corporate agenda and also proud that we created the space that groups, networks and movements can come together. I think that we have a lot to build on and we had a great job - collectively.

### **Olivier Hoedeman – Corporate Europe Observatory, the Netherlands**

H: What is the main challenge in terms of dealing with water issues? If you have any specific concern from the perspective from the global North, please address it.

Olivier (O): There are two big challenges. One is the ideological aspect. In fact the government and water sector, to a large extent, is incorporated with the neo-liberal approach, which believes that the privatization is the solution with securing access to clean water. Also, they don't have any interest and faith in the public sector, particularly in finding a way to make the public sector work and to support the public sector needs. That ideological aspect would be the big challenge. The other equally big challenge is the commercial interest which is involved in the water sector. In fact, a lot of European governments identify with European companies that dominate the private water sector internationally. For instance, the French government, British government and European Commission play their international water policy around the interest of those companies in order to help them expand and bring the wealth to the European shareholders, once they gain profits from these companies. Above the ideological issues, the commercial interest is always the biggest hurdle. They are overlapping problems. I am looking forward to finding ways to overcome it.

H: The discussion at the alternative forum was very rich and diverse. I wonder

where people's opinions converged and diverged. What do you see as a common ground when people from all over the world work together?

O: I think the richness and the diversity of the discussion is a good thing. You cannot reduce the reality into something more simple and straightforward. If you have joint actions that everybody agrees, that would be easier, but that doesn't do justice to the diversity of the struggles that are going on right now and I think some people forget that the struggle against the privatization come from local struggles. What we are seeing here in Mexico City is that a lot of groups come together – activists who are working at the local level, grassroots activists and NGOs, campaign groups sometimes on the international level. The basis of what we have achieved in the last two days at the alternative forum is the fact that there is local opposition against privatization growing in a number of cities. Some of the struggles became successful and there are more and more examples of that. If it would be only a global movement without the local movement, it would be weak. I think there is no way that you can hurry the process that those local groups grow together into a global network. There was a previous event which attempts a more top-down approach and decides the agenda of the international movement; but I think that it has proven to be useless. In the international level, we need to do things that create the synergy to make local struggles stronger. I think that's what happened in the international alternative forum here. I think it is very positive. I don't think it is the sign of strategic weakness. You can make steps forward with the master plan but that would probably not be the very right steps anyway.

The convergence is happening both in terms of organizational principles and contents. We shared common organizational principles, which are mutual respect, equality between the organizations, and the strong sense that we need to create synergies and not dominate each other. These are very important points for the next step. In terms of contents, there was also a very strong convergence point. At the international forum, there was a higher level of sophistication in the debate than in the previous events; one of them was focusing on improving the public sector because the anti-privatization struggle became successful and there were real needs in some cities to implement alternatives, not just to dream about it but to make them work for the people. That's the phase we are in now. That was a very strong theme at the forum. It is a collective challenge, I felt very much like that. The convergence point is that the movement is getting stronger and more mature.



H: So, right to water has long standing concept. Is social control as well?

O: Yes. Right to water is not new and also very general. We combine the right to water to a functioning public sector, with 'social control'. In other words, the water users have strong democratic control over water management. 'Social control' gives the poorest a direct say and ensures that their needs are fulfilled. Involving water users and civil groups in planning and oversight of the daily management helps public water operators steer free of bureaucratization and other pitfalls.

Right to water is an important baseline but in itself doesn't mean much. It can be used for a lot of purposes without other concepts. As you see in the World Water Forum, both sides use the concept. Pro-privatization groups also use it because they knew that it is important to undermine the meaning of it by co-opting the term. Our side continues to insist the right to water. There is an interesting battle going on between discourses.

H: Could you make a brief assessment of the meeting?

O: It was very different from the previous World Water Forum in Kyoto; particularly on the level of activities organized outside of the forum. Activities are not just organized around anti-privatization; it also has strong positive message. The fact that there was a big demonstration – about 40,000 people involved – there were extensive programs of debates, deliberation around water issues; organized outside. That undermines the pro-privatization agenda of the World Water Forum in a different way that happened in Kyoto two years ago. In Kyoto, everything happened inside the forum; debating the pros and cons about privatization. It was very much a reactive strategy. This time, there are so many things happening outside. The World Water Forum is challenged in many ways, including its legitimacy. It had a quite profound impact. It was very clear that the World Water Council was struggling how to deal with the alternative forum outside. They have to take it seriously because the real debates are at the alternative forum. The big difference from the previous one is the level of involvement of governments. This time there were a number of Southern governments who were confident enough to challenge the agenda of the World Water Council. In Kyoto, there were no governments who were confident to stand up. There are maybe three to four more governments now. We have to see how it ends. The synergies between the civil society events and efforts of those governments are very important this time.

### **Report from the Alternative World Water Conference**

I remember the excitement, energy and passion around the late 1990's when the so-called 'anti-globalization' movement rose up in Seattle, Washington, and Prague. Various kinds of people's global networks and forum were created including the World Social Forum, anti-war movement, etc. Global action became a new norm but we soon encountered skeptical questions. Where are we heading in the end? There are so many differences in experiences, contexts, analyses and strategies. Can we ever achieve anything? From the outsider's viewpoint, what was called the 'anti-globalization movement' seems to have faded out, since war became a dominant issue. It may be simply the matter that issues and analyses have been diversified. However, it is my sense that these unresolved questions are part of the reason that anti-globalization movements do not seem to move forward. There are so many important issues and so many good efforts to address those issues or make changes but I have seen few sites that generate such powerful, positive energy. If any lay person were at the alternative forum, the person would have appreciated this energy and would have started to think about the water issues seriously.

#### *Why Water matters?*

Needless to say, water is essential for life. Nobody disputes this. It has so many domains of concerns; conservation of water resource, quality of (drinking) water, accessibility of water and so on. Conservation of water resources or general quality issues was part of the concerns of environmentalists for a long time. Quality and accessibility were also the old development agenda in terms of building infrastructure. At this forum, each issue was discussed in a more related manner, with the common thread of neo-liberal globalization, although the forum itself didn't address it explicitly.

Among those dimensions, the accessibility was the most highlighted issue. What does accessibility mean? Assuming that there are enough water resources, it is whether people have access to water, whether there is the infrastructure to provide water to people, whether the water system works, whether water is affordable to anyone and accessible to those who cannot afford it. Access to water is subject to the infrastructure system in a modern state. The idea of the state as a benevolent authority had a powerful influence in people's mind – whether it is simply a myth or not. Now this idea is challenged by the market. Infrastructure for

basic services and the philosophy behind its function have never been as visible as at this moment.

### *Two Discursive Battles*

Here is a common description of the problem and the diagnosis. There are people who cannot access water. The common diagnosis of the current water problem is that “the public water system doesn’t work, therefore it needs to be transformed to a more ‘efficient’ system”. Private/business sectors are the solution for this because they are more ‘efficient’. There are two discursive battles going on here: one is the role of the state and the other is the language of ‘efficiency’.

To what extent the state is responsible for providing basic services and what the criteria of the basic services should be have been disputed for the last two to three decades when the idea of the welfare state is challenged by neo-liberal regimes. The reason that the state is emphasized as a service provider is that it assumes that the state doesn’t provide this service for profit, but rather as its responsibility. The criteria of basic services depend on the countries. A lot of public services such as health care, education, transportation and so on have been challenged to be privatized. These criteria cannot be easily negotiated. Whether certain services should be public is very much subjected to the people’s mindset. In that sense, the dominant language is very important.

It seems to me that the diagnosis of the problem and the suggested solution is tautological; the cause of the water problem is ‘inefficiency’ and the solution is ‘efficient’ system and management; private sector is efficient therefore, it needs to be privatized. I doubt how the language of efficiency dominated this issue from the beginning. It seems that the entire analysis is designed for the market interest. The public sector does not even belong to the framework, it is quietly assumed to be an inefficient entity. With the ‘efficiency’ framework, privatization may be the logical conclusion. However, how ‘efficient’ system do we want? How ‘efficient’ the privatized system is after all?

If we bring the interview context onto this ideological debate, the picture gets clearer. Here are some guiding questions for reading interviews: Where are people suffering from these issues and who has fought against water privatization strongly? Who are the companies? Where are they from? Why do these countries consider the option of privatization initially? Who is involved in this process?

*Right to water and Alternatives*

We are now at a stage that people have to claim their rights to water; it cannot be taken for granted any more. About 40,000 people marched for the right to water. It is great that more people are concerned with this issue and more people are involved in this problem but it also indicates that the water problem comes close to threatening this many people's life.

Although right to water is the strongest counterpoint against the water privatization, it needs to be more clearly defined. It is such a powerful and appealing notion, even the corporate in the World Water Forum adopted this language. Olivier Hoederman points out that right to water is an important baseline, but in itself, it doesn't matter much. Charles Santiago warns the notion of 'tradable rights' which is endorsed by the institutions such as government or corporations. Now, everybody claims that they are working for the right to water. What would be the strategy to implement this idea?

Rights language premises that there is an executor who secures the rights, which is likely a state. In this sense, it was not surprising that a lot of the sessions of the alternative forum address public-public partnership, democracy, participation, accountability and strengthening local movements. Olivier Hoederman suggests that rights to water need to be combined to functioning public sector and social control. Charles Santiago emphasizes the importance of developing democracy and vibrant civil society by saying that "although we are focusing on the water, we really need to talk about developing democracy, governance issues, transparency issues, and get people committed to the development of their own country." Arvind Keyriwal urges the importance of strengthening local movement, saying "I think the most important challenge is to strengthen the local people, to strengthen the democracy. It should be the people who decide what kind of usages that they want to have, what kind of water structure they want to have, what kind of water utilities that they want to have."

It was not only discussed in terms of principles. The way that the conference is organized is sincerely representative of those principles. People's voluntary participation in the workshop and meeting was very impressive. In particular, the strategy meetings that happened every evening during the conference were always packed with people who are willing to share their experiences and build something from it. As an observer, I raised the same questions such as where this forum is heading

and whether this forum can achieve anything at some point. Olivier Hoedermann's assessment addresses my concerns.

"I think the richness and the diversity of the discussion is good thing. You cannot reduce the reality to something more simple and straightforward. If you have joint actions that everybody agrees to, that would be easier, but that doesn't do the justice to the diversity of the struggles that are going on and I think some people forget that the struggle against privatization come from the local struggle.... In the international level we need to do things that create synergy and make local struggles stronger. I think that's what happened in the international forum here. I think it is very positive. I don't think it is the sign of the strategic weakness. You can make steps forward with the master plan but that would probably not very right steps anyway."



# **Water commodification: Can human rights trump the market?**

**Patrick BOND**

## **Introduction: Ambiguous rights**

On March 16 in Mexico City, thousands of grassroots water warriors marched against an equivalent number of establishment delegates from governments, corporations and international agencies at the World Water Forum. The activists, opposed to what they term the 'commodification' of water, were stopped a kilometer away from their establishment opponents. But as the *Associated Press* reported, 'Youths in ski masks attacked journalists and fought with police, smashing a patrol car and hurling rocks during largely peaceful Water Forum protests involving about 10,000 marchers.' The *AP* continued,

Many of the battles over water in Mexico don't involve people who would otherwise be considered radicals. Those on the front lines are residents of low-income neighborhoods in Mexico City who get in fistfights over water-truck deliveries, or housewives who can no longer stand the stink of untreated sewage flowing beside their homes. And then there are the Indian families whose crops are ruined by the diversion of water to feed a nearby city, while their children go without safe drinking water.<sup>1</sup>

In South Africa, there are millions who can tell stories of water 'delivery drought'. Rural areas are under serviced due to lack of operating subsidies which mean that a large percentage of taps installed in the post-apartheid era are now dry. And for those lucky to be on municipal water grids, mass disconnections due to unaffordability affect more than 1.5 million South Africans each year, even the government admits.

Is a global 'human right to water' worth pursuing to correct matters? Although the 1948 Universal Declaration on Human Rights<sup>2</sup> does not explicitly mention water, by 1979 the United Nations Convention on the Elimination of All Forms of Discrimination Against Women provided for 'the provision of adequate nutritious foods and clean drinking-water'. Likewise, the renowned South African Freedom Charter of 1955 does not include the word water, but by 1996 South Africa became the world's only country whose constitution provides a right to water: 'everyone has the right to an environment that is not harmful to their health or well-being ... everyone has the right to have access to ... sufficient water'. Have the intervening decades of struggle to codify water rights been worth the effort? Have pressures associated with globalization and neoliberalism negated these fine words? Are water wars that have broken out across the world changing the balance of power?<sup>3</sup>

Unfortunately, South Africans' right to water has generally amounted to meaningless rhetoric, as a result of the 'access' phrase (i.e., having a tap is satisfactory even if a household cannot afford the water that should flow through it); provisos for 'incremental' and 'progressive' implementation; and the 'available resources' caveats. The landmark Constitutional Court Grootboom judgment is illustrative. When the plaintiffs' status was reviewed by the *Sunday Times* on Human Rights Day in 2004, Irene Grootboom could not be located, and her community was living in worse poverty than before the judgment:

Grootboom and 900 other applicants successfully contested their 1998 eviction from a site in Wallacedene [a small town in the Western Cape] when the Constitutional Court ruled in their favor in October 2000. Today, all that the site of Grootboom has to show for that victory is the smelly ablution block, built over a donga that had served as a latrine for the squatters who went to court. Some of the toilets and washbasins are blocked, as is the urinal in the men's half of the building. The outside washbasins are broken and useless. Inside, a burst pipe sprays a jet of water onto the wall. Although the two-year-old ablution block is foul, the people of Grootboom still



use it, collecting water from the broken pipe to flush the toilets that aren't blocked.

The Grootboom victory made headlines around the world, as noted by former SA Judge Richard Goldstone, who went on to serve the International Court of Justice in The Hague. The 'uniqueness' of the Grootboom decision, Judge Goldstone told Harvard University's Kennedy School of Government, would be remembered as 'the first building block in creating a jurisprudence of socioeconomic rights'.<sup>4</sup>

Utterly useless as water-rights talk appears even after the foundational Grootboom judgment, South Africa's constitutional framing allows us to address two central issues: whether 'commodification' of water is trumping both the heralded jurisprudence of socio-economic rights, and whether the main implementing mechanism, the 'Free Basic Water' to be supplied in the wake of a 2000 municipal election campaign promise, has been sabotaged by neoliberal-oriented municipal officials.

## Water ideologies

To address these issues properly requires some context. There have emerged three main arguments, ideologies or discourses associated with water in South Africa and across the world. We have already reviewed, in brief, the socio-economic rights discourse, and we will later see how difficult it is to apply in a hostile economic and political context.

A second discourse, 'neoliberalism', has an important advocate in *The Economist* magazine, whose July 2003 survey on water declares this dilemma: 'throughout history, and especially over the past century, it has been ill-governed and, above all, colossally underpriced.' Identifying this problem, naturally begets this solution: 'The best way to deal with water is to price it more sensibly,' for 'although water is special, both its provision and its use will respond to market signals.' As for the problem of delivering water to poor people, 'The best way of solving it is to treat water pretty much as a business like any other.'<sup>5</sup>

The third discourse, in-between, is the often pleasing philosophy termed 'sustainable development' (or 'ecological modernization'). It is characterized by this sort of more balanced rhetoric from the World Bank, in its 1996 guidebook *African Water Resources*: 'The strategy developed in this document is based on the principle that water is a scarce good with dimensions of economic efficiency, social equity, and environmental sustainability'.<sup>6</sup>

The reality, of course, is different. The Bank consistently commodifies water, and offers ideological assertions such as this cornerstone of the 'Kampala Statement' by the World Bank and African Water Utilities Partnership in 2001: 'the poor are willing and have the capacity to pay for services that are adapted to their needs... poor performance of a number of public utilities is rooted in a policy of repressed tariffs'.<sup>7</sup> Moreover, according to a 2000 Bank staff manual, *Sourcebook on Community Driven Development in the Africa Region*,

Work is still needed with political leaders in some national governments to move away from the concept of free water for all... Promote increased capital cost recovery from users. An upfront cash contribution based on their willingness-to-pay is required from users to demonstrate demand and develop community capacity to administer funds and tariffs. Ensure 100% recovery of operation and maintenance costs.<sup>8</sup>

This is a mandate for both political manipulation and economic neoliberalism.

And as for World Bank practices, there appears no change in overall approach. Mega-dams continue in spite of 1998-2001 World Commission on Dams, chaired by South African water minister Kader Asmal, but soon later sabotaged by Bank staff such as South African water specialist John Briscoe.<sup>9</sup> As the Commission demonstrated, the costs of corruption, displacement, overspending and ecological damage should have put an end to mega-dams. The Bank's notorious privatization conditionality continues even via debt relief. And a general philosophical commitment remains to pricing water according to 'marginal cost' (operating and maintenance expenses) plus a profit markup. It is very likely that Paul Wolfowitz's reign at the Bank will fuse neo-conservatism and neoliberalism.

Indeed, the fusion of neoliberal and sustainable development discourses became the hegemonic approach to water in recent years, at least since the Asian crisis of 1997-99, as the 'Washington Consensus' suffered ever worsening publicity. From that point, insufficient profit spreads resulted in a low and declining investment record in Third World water systems. There was renewed elite attention to highly-subsidized 'partnerships' (a euphemism for commodification). But the harsh reality of poverty in the Third World has left sustainable development strategies stumped.

John Bellamy Foster's essay on 'The Ecological Tyranny of the Bottom Line' cites three fatal contradictions with the 'environmental economics' approach to sustainable development:

- the radical break with all previous human history necessitated by the reduction of the human relation to nature to a set of market-based utilities, rooted in the egoistic preferences of individuals;
- the radical displacement of the very idea of value or worth, resulting from the domination of market values over everything else ... it is this widespread humanistic sense of systems of intrinsic value that are not reducible to mere market values and cannot be included within a cost-benefit analysis that so often frustrates the attempts of economists to carry out contingent value analyses among the general public; and
- [market-based environmental economic] solutions, while sometimes attenuating the problems in the short term, only accentuate the contradictions overall, undermining both the conditions of life and the conditions of production. The reason for this is the sheer dynamism of the capitalist commodity economy, which by its very nature accepts no barriers outside of itself, and seeks constantly to increase its sphere of influence without regard to the effects of this on our biosphere.<sup>10</sup>

The Bretton Woods Institutions' central coordinating and strategizing role in water management deserves more consideration, not only because of their influence in South Africa, but because they are key agents in the commodification of water across Africa and the Third World. The IMF has drawn many water-related issues into its own structural adjustment programs, whether the Enhanced Structural Adjustment Facility, Poverty Reduction and Growth Facility or Poverty Reduction Strategy Program.<sup>11</sup>

The World Bank has had primary intellectual, water policy, and project promotion roles consistent with water commodification. The Bank is a regular coordinator of, and leverage-point for, donor resources. It is a catalyst for several large dam projects, a project and water sector lender, a 'Knowledge Bank' source of information, a facilitator of civil-society involvement and a promoter of a limited version of 'community participation' in water projects. The Bank is also a government policy adviser, an investor in privatized water infrastructure (through the International Finance Corporation), a host to numerous African water agencies' Water Utilities Partnership, and the main agency imposing stipulations upon water sector management via structural adjustment and debt relief

conditionality. The Bank can, therefore, claim not only to have a coherent perspective and wide-ranging market-oriented framework, but also to have applied these to water projects and policies across Africa. The African Development Bank has generally followed the same patterns.

True, there are occasional disagreements amongst Bank staff. A mid-1990s debate occurred over whether retail water prices should follow a rising block tariff or instead more closely approximate the cost of production 'full cost recovery'.<sup>12</sup> The victory of the latter argument within the Bank during the late 1990s seemed to herald an era of full-fledged water commodification, at the same time the Bretton Woods Institutions were most dogmatically insistent upon similar principles in relation to macroeconomic policy: in a phrase, 'get the prices right'. Also of critical importance is the role of Bank water management in development projects such as water supply enhancement or via restructuring Riparian water law so as to end centralized administrative allocation of water, to be replaced by water trading in specially-designed markets. In virtually all such cases, the Bank has developed policies and projects that further the commodification of water.

Commodifying water entails highlighting its role mainly as an economic good, attempting to reduce cross-subsidization that distorts the end-user price of water (tariff), promoting a limited form of means-tested subsidization, establishing shadow prices for water as an environmental good, solving problems associated with state control of water (inefficiencies, excessive administrative centralization, lack of competition, unaccounted-for-water, weak billing and political interference), and in the process, fostering the conditions for water privatization. Social disasters from such rigid neoliberal policy directives were strewn across Africa, especially when low-income people simply could not afford any state services, or when parents cut back on girls' schooling or healthcare because cost recovery became burdensome. In October 2000, the Bank was instructed by the US Congress never to impose these user-fee provisions on education and healthcare, and in 2002 a campaign by progressive NGOs in the US expanded to de-commodify water as well.

The struggles against commodified water often erupt on global platforms, such as the tri-annual World Water Forum – at The Hague in 2000, Kyoto in 2003 and Mexico City in 2006 – and related meetings of the water establishment such as World Trade Organization summits. There, activists have battled a series of enemies:

- the Global Water Partnership (created by the World Bank, UN Development Programme and Swedish aid);
- the Marseilles-based World Water Council (founded by Suez, Canadian aid and the Egyptian government and joined by 300 private companies, government ministries, and international organizations);
- the International Private Water Association (privatization firms plus the World Bank, US Credit Export Agency and Overseas Private Investment Corporation and the European Bank for Reconstruction and Development);
- the World Bank itself (which in \$20 billion worth of 1990s water projects imposed privatization as a loan condition in a third of the transactions);
- Mikhael Gorbachev's Green Cross (in ongoing dispute with Council of Canadians over global-scale water rights and property rights in the UN);
- Aquafed (a federation set up by a former Suez managing director); and
- the World Panel on Financing Infrastructure.

The latter was chaired by former IMF managing director Michel Camdessus during 2002-2003, with major multilateral development banks, Citibank, Lazard Freres, the US Ex-Im Bank, private water companies (Suez, Thames Water), state elites (from Egypt, France, Ivory Coast, Mexico, and Pakistan) and two NGOs (Transparency International and WaterAid). It proposed much greater amounts of public subsidies for privatizers, via a risk insurance mechanism to safeguard companies like Suez against currency crises which devastated the firm's Argentina operations after 2001.

The United Nations has generally sided with the establishment. The UN Panel on Water declared in 1998 that 'water should be paid for as a commodity rather than be treated as an essential staple to be provided free of cost'.<sup>13</sup> At the UN's September 2002 World Summit on Sustainability in Johannesburg, 'Public-Private Partnerships' ('Type 2 Partnerships') were endorsed. A few weeks later, the UN formally adopted the New Partnership for Africa's Development (championed by South African president Thabo Mbeki), which calls for increased foreign investment in privatized African infrastructure.

By mid-2005, even Rand Water – Johannesburg's catchment management para-state agency – successfully bid on a joint venture with

a Dutch company that will privatize the water system of Accra, Ghana, in a World Bank funded project. Moreover, a new 'pre-paid meter' technology that leads to self-disconnection was pioneered by Conlog, a South African firm directed by the late ANC leader Joe Modise once he retired as minister of defense in 1999. Conlog is manufacturing these devices and installing them across the African continent. Soweto activists have taken the lead in ripping out pre-paid meters – both water and electricity – and periodically marching to municipal offices to trash the hated technology, as well as preparing a court case arguing that the meters are unconstitutional, as reviewed below. There are also growing links between the Ghanaian National Coalition Against the Privatization of Water and the Johannesburg Anti-Privatization Forum.

Meanwhile, some water-delivery NGOs such as London-based WaterAid, members of Freshwater Action Network or South Africa's Mvula Trust have also become bogged down in the discourse of sustainability under constraints of neoliberalism and budget cuts. The NGOs find themselves occasionally accused of betraying mass popular movement sentiments over water prices, standards and institutional delivery systems. While expanded community control is generally an objective of progressive activists, a primary concern is that decentralization should not replace a serious state commitment to subsidizing poor people's water. Critics argue that some NGO interventions lubricate neoliberalism, because installing inadequate collective tap systems – usually without sufficient sanitation – contributes to further state shrinkage. The general trend towards private outsourcing, including some examples of NGO delivery, has been destructive, because standards are lower, prices are higher, disconnections are more common, maintenance is worse and accountability is harder to establish.

In the context of hotly contested policy and projects, the establishment water groups described above have learned rhetorical lessons about sustainability, and some might even concede that a 'right' to water can be useful; although micro-neoliberal pricing of water (as reviewed below) would still be a bottom-line demand. The mix of sustainability and market phrasing leaves enormous challenges for activists and analysts to transcend rights rhetorics and delve into the finer details of water systems – especially water pricing techniques that tend to exclude the poorest from access.

In turn, while microeconomic techniques have developed since 1992,

when Rio and Dublin water conferences established water as an economic good, the same principle was applied in South Africa in 1994, the year of political liberation, when in the country's first 'democratic' White Paper on water, the minimum price of water was set at marginal cost - i.e., the operating and maintenance expenses associated with covering the next unit of water's production cost. As we will see, this approach to commodification soon had a lethal impact.

### **Commodification of South African water**

Given that the vast majority of black people lacked access to direct household water and sanitation in 1994, the new government's mandate was to provide water as an essential staple *free of cost* for at least a 'lifeline' amount to all residents was one of the African National Congress' (ANC) first electoral promises, within the *Reconstruction and Development Program* (RDP). Such a strategy would have required a nation-wide water pricing policy with higher unit amounts for higher-volume water consumers, especially large firms, mines and (white) farmers. This was not an impossible task, but the first post-apartheid water minister, Kader Asmal, refused to grasp the nettle. His rejoinder to the demand that he respect the promised 50 liters per day lifeline supply of water was telling:

The positions I put forward are not positions of a sell-out, but of positions that uphold the policy of the South African government and the ANC ... The RDP makes no reference to free water to the citizens of South Africa. The provision of such free water has financial implications for local government that I as a national minister must be extremely careful enforcing on local government.<sup>14</sup>

It took a neoliberal leap of logic to redefine the word 'lifeline' to mean, not free, but instead the equivalent of the operating and maintenance costs (i.e., full marginal-cost recovery, namely the break-even cost of supplying an additional unit of the water to the customer). Under the influence of his own neoliberal bureaucrats and the World Bank, this slippery semantic solution was applied with increasing ruthlessness during the late 1990s.

The main neoliberal criticism of a free lifeline and rising block tariff offered by Bank water official John Roome, the task manager of the controversial Lesotho Highlands Water Project, was that municipal privatization contracts 'would be much harder to establish' if poor consumers had the expectation of getting something for nothing. If

consumers didn't pay, Roome continued, Asmal needed a 'credible threat of cutting service.'<sup>15</sup> This was part of Roome's advice, which the Bank's 1999 *Country Assistance Strategy* for South Africa later termed 'instrumental' in shifting South African water policy.<sup>16</sup>

Hostility to subsidies was a general phenomenon within the post-apartheid state. In 1996, Dr Chippy Olver, then deputy director-general of the Department of Constitutional Development and subsequently the director-general of the Department of Environmental Affairs and Tourism (and main manager of the 2002 World Summit on Sustainable Development) told the *Mail & Guardian* newspaper that low-income people should *not* receive lower-priced electricity than large firms, such as the energy-guzzling Alusaf aluminum smelter (they pay, on average, four times more). He remarked offhandedly, 'If we increase the price of electricity to users like Alusaf [so as to cross-subsidise low-income consumers], their products will become uncompetitive and that will affect our balance of payments.'<sup>17</sup>

Instead, the commodification of water – especially in the 1994 *Water and Sanitation White Paper* and in a 1998 *Water Pricing Policy* – was meant to generate more rational utilization of scarce water resources, beginning with marginal-cost based pricing. The logical implications are the formal privatization (or corporatization) of services and the fragmentation of the public sector. Both processes were already in train in South Africa, with the French company Suez landing water contracts in small Eastern Cape provincial towns (Stutterheim, Queenstown, Fort Beaufort) even before the end of apartheid, leading to the company's capture of the massive Johannesburg water management contract in 2001. In addition, privatization or even merely corporatization of water led inexorably to an arm's-length, fractured relationship between the water and health departments within the state. The South African Department of Health acknowledged this problem more than a year before the infamous 2000-02 cholera outbreak, which affected several hundred thousand people:

It is common knowledge that lack of water and sanitation is a common cause of cholera, diarrhea or other illnesses that afflict so many in our country and that there is a relationship between various communicable diseases, including TB, and conditions of squalor. Yet we often have not structured our institutions and service delivery systems in ways that can easily respond to these realities.<sup>18</sup>

One indication of the problem of water commodification was the rash of disconnections due to unaffordability, affecting 275,000 households



in 2003 alone.<sup>19</sup> To illustrate, water commodification at the cholera epicenter in Ngwelezane in KwaZulu-Natal province resulted in the disconnection of thousands of people from their previously free water supply in August 2000. The *Sunday Times* reported,

This week, a startling picture emerged of the sequence of events that led up to the outbreak around Ngwelezane. Authorities discovered that some areas were still receiving free water in terms of a 17-year initiative of the former KwaZulu government to deal with the 1983/4 drought.

'It was eventually noticed, and it was decided to switch off the supply', said the chief executive of the Uthungulu Regional Council, B.B. Biyela. 'The people were given sufficient warning and the supply was cut off at the beginning of August'.

The first cases indicating cholera were noticed in Matshana and Nqutshini in the second week of August. The first case confirmed was on August 19. At this point, health officials asked the Mhlathuze Water Board to reconnect the free water supplied by the former homeland government to the Nqutshini area.<sup>20</sup>

The connection fee of R51 (then US\$7) imposed by Biyela was 'unaffordable for thousands of people. He cut off their water supply using a 'prepaid meter' self-disconnection strategy, thus saving a few tens of thousands of rands but costing the provincial KwaZulu-Natal health authorities and the sick people tens of millions.

The matter did not end at that point. According to *Sunday Times* reporter Mawande Jubasi, cut-offs were still occurring in cholera zones 18 months after the epidemic began:

David Shezi stole water for his eight children after he could no longer take the humiliation of seeing them begging for water from neighbors. But while he sat in a cell at a police station on KwaZulu-Natal's South Coast, the man who went to the police about the theft continued to sell water to desperate people.

Samson Nqayi, chairman of the Dangaye Water Authority, a subsidiary of Umgeni Water, said he complained to police about Shezi and five co-accused to make an example of them. Nqayi, who owns a water truck, sells 25 liters of water for R1 to those who have no piped water. He also charges them R500 to install pipes to their mud huts... Shezi is poor, earning only R500 a month by selling fruit and vegetables to motorists near his home in Umgababa. Five years ago he saved R500 to get water connected to his hut. But then school

fees and transport and food costs drove him into debt. When his water was cut off three months ago he became dejected. He used a pipe to bypass his water meter. Then he was arrested with five other men in his village. 'I did not want to do it but I had no option', he said. 'I should be getting free water. I tried to do it the right way and I failed. Now I am sure I will go to jail because my wife and children were thirsty'. Shezi is among one million poor people in KwaZulu-Natal who are forced into drastic measures to get water. On Friday, 300 members of an informal settlement near Queensburgh, Durban, were collecting water from the cholera-infested Umhlathuzana River. Their supply had been cut by the [Durban] city.

These people are the losers in a water war between the national Department of Water Affairs and Forestry, Umgeni Water and the municipalities of Durban, Pietermaritzburg, Ugu and Umgungundlovu. The municipalities and Umgeni Water say they do not have the money to provide free water. They asked Water Affairs and Forestry for R400 million and got only R120 million.<sup>21</sup>

What is most important here is that privatizers – whether water seller Samson Nqayi, multinational corporation Suez or even corporatizing KwaZulu-Natal municipalities and water boards which are moving to full cost-recovery systems – are simply taking no responsibility for the social and personal costs of cholera, diarrhea, dysentery, TB or other Aids-opportunistic infections incurred by health clinics and the patients. A company making profits out of water sales feels no guilt when women and children suffer most. It does not repair environmental damage when women are forced to cut down trees to heat their families' food. It pays none of the local economic costs when electricity cut-offs prevent small businesses from operating, or when workers are less productive because they have lost access to even their water and sanitation.

The ability to avoid the social implications of public goods associated with water and electricity allows huge multinational corporations to make enormous profits by expanding infrastructure systems just to the point where low-income people live. Usually this is a geographic decision, so that areas served by privatized services are noticeably 'cherry-picked': wealthy consumers get the services but poor people are denied access. Even before the logic of privatization sets in, the necessary preliminary work by the neoliberal state – commercializing, de-linking water from other state functions, raising tariffs, cutting off people who cannot pay their bills – all have the same effect, as Biyela proved in Ngwelezane.

As a result, the key determinant is not whether water is privately or publicly managed, but rather whether it is in the process of being commodified. At that point, men like Biyela are just as lethal in the public sector as they would be if acting as chief executive officers of a privatized water company.

### **Free water?**

Finally in August 2000, when a cholera crisis emerged in poverty-stricken KwaZulu-Natal province and social protest rose to new heights, Asmal's replacement (after a 1999 cabinet reshuffle), Ronnie Kasrils, admitted that 'lifeline' should really mean 'free'. But a rapid neoliberal reaction by the Department of Trade and Industry prevented the government from paying for the cross-subsidy by charging corporations more. Still, the 2000 municipal promise is based upon a strong version of the rights discourse: 'ANC-led local government will provide all residents with a free basic amount of water, electricity and other municipal services, so as to help the poor. Those who use more than the basic amounts will pay for the extra they use.'

Two points are important: first, the promise is based on a 'universal entitlement', that basic needs should be met (regardless of income), consistent with the Constitution's Bill of Rights; and second, the ANC promise also means that those who consume more should pay more per unit after the free basic supply, which promotes 'cross-subsidies' (i.e., redistribution).

In July 2001, the free water policy became official, notwithstanding widespread sabotage by municipal and national bureaucrats responsible for administering the policy. Subsequently, there have been no new water privatizations, in large part due to the fear that cherry picking and supply cuts will be deemed unconstitutional. Moreover, some of the major pilot cases resulted in disaster.

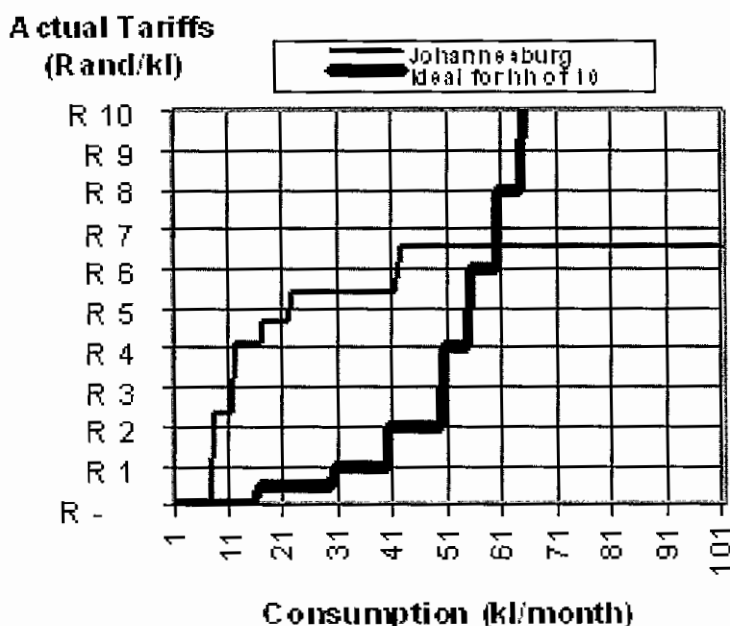
For example, Saur had to renegotiate its Dolphin Coast contract in mid-2001 due to lack of profits, with research showing that it regularly denies services to poor people. For similar reasons, Saur also pulled out of its Maputo, Mozambique contract in late 2001. Having been thrown out of the small town of Fort Beaufort (also known as Nkonkobe), Suez's subsidiary is responding with a lawsuit for millions of dollars in damages – much as did Bechtel in the celebrated case of the uprising against water privatization in Cochabamba, Bolivia.

The Johannesburg Water Company, also managed by Suez, is controversially introducing pit latrines, in spite of porous soil and the spread of the E.Coli bacteria, to prevent poor people flushing their toilets. If these are unacceptable because of South Africa's dolomitic soils, Johannesburg Water offers a low-flush 'shallow sewage' system to residents of 'condominium' (single-storey) houses arranged in rows, connected to each other by sanitation pipes much closer to the surface. Given the limited role of gravity in the gradient and the mere trickle of water that flows through, community residents are required to negotiate with each other over who will physically unblock sewers every three months. Pre-paid meters are also being installed, and as we note below, may be the most important test case for water privatization.

But most tellingly, perhaps, Johannesburg officials also sabotaged the ANC's 'free basic water' promise as early as July 2001, when revised water tariffs were issued following the December 2000 municipal elections. Those tariffs provided a very small free lifeline, 6,000 liters per household per month, followed by a very steep, convex curve, such that the next consumption block became unaffordable, leading to even higher rates of water disconnections in many settings. The 6,000 liters represent just two toilet flushes a day for a household of eight, for those lucky enough to have flush toilets. It leaves no additional water to drink, wash with, or clean clothes or the house.

Optimally, a different strategy based upon de-commodification would provide a larger free lifeline tariff, ideally on a per-person, not per-household basis, and then rise in a concave manner to penalize luxury consumption (Figure 1). Johannesburg's tariff was set by the council with help from Suez, and has an extremely high price increase for the second block of consumption. Two years later, the price of that second block was raised 32%, with a 10% overall increase, putting an enormous burden on poor households which used more than 6,000 liters each month. The rich got off with relatively small increases and a flat tariff after 40kl/hh/month, which did nothing to encourage water conservation.

**Figure 1: Divergent water pricing strategies  
Johannesburg (2001) v. ideal tariff for large household**

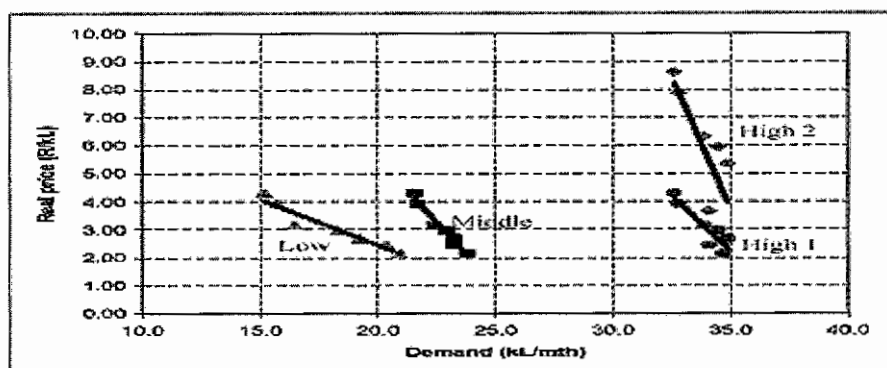


Source: Johannesburg Water (thin) and own projection (thick)

In Durban, South Africa's wealthiest municipality, a similar process has recently been measured. The 1997 consumption of water by the one third of the city's residents who have the lowest income was 22 kl/household/month. Shortly afterwards, a 'Free Basic Water' strategy was adopted (for just the first 6 kl/hh/month), but steep increases in price for the next blocks of water were imposed. By 2003, the price of the average liter of water consumed by the lowest-income third of billed residents had doubled from R2 in 1997 (about US\$0.30) to R4 (Figure 2). According to Reg Bailey, who runs Durban's water tariffs, price increase resulted in average consumption by low-income consumers diminishing to 15 kl/household/month during the same period. (The price elasticity for water was, hence, a disturbing -0.55 – an extremely large impact for what should be a basic need, hence relatively impervious to price change.) In contrast, for middle- and high-income consumers, the price rise was a bit higher, but the corresponding decline in average consumption was much less (the price elasticities, respectively, were -0.14 and -0.10).<sup>22</sup>

In sum, although they provided the pilot case of Free Basic Water, Bailey and his colleagues established a system in the late 1990s and early 2000s that led to much greater inequality. Like the Johannesburg case, it simply goes to show that the 'devil is in the details', and that the struggle over the shape and slope of the tariff curve is indeed a proxy for class struggle. Durban's new radical social movements began major mobilizations against water apartheid during 2004-05, and some initial concessions are encouraging.

**Figure 2: The impact of price increases on water consumption by different income groups, Durban, 1997-2003.**



Source: Bailey and Buckley.

The sabotage via municipal pricing was condoned at the highest levels, where politicians and bureaucrats continued to find ways to 'blame the victim'. According to newspaper advertisements widely placed by Kasrils periodically beginning in December 2002,

If you cannot afford to pay for your water, you are still entitled to a free basic water supply. It is a criminal offense to connect to a public supply without the Municipality's permission since this could harm other water users. If you are unable to pay your water bill, you should make arrangements with your Municipality. Although they may not withhold the basic supply, they may restrict you to this basic amount. If you interfere with the restrictor system you can face a total cut-off because you may harm other people in the community. Also note that even if you do not receive an account, you are still responsible to ensure payment.<sup>23</sup>

The complicated and highly contradictory phrasing reveals the government's ambivalence on disconnections. In May 2003, after embarrassing, high-profile media revelations about disconnections, Kasrils promised in his parliamentary budget speech to 'name and shame' municipalities that disconnected residents without a nearby standpipe backup supply or 'trickler' restrictor device (such as a washer with tiny holes inserted into the pipes, that allow merely drips). But Kasrils (2003) admitted that the three largest cities in South Africa were still disconnecting 17,800 households a month.<sup>24</sup> One response to commodification of water, high and regressive tariffs and disconnections, was the illegal reconnection of water, as one of several strategies adopted by activists in South Africa and many other sites, as a more direct way of 'de-commodifying' water.

## Resistance

The highest profile citizens' campaign against commodified water was in Bolivia in April 2000, when the people of the third-largest city, Cochabamba, fought the US firm Bechtel, backed by the World Bank. As of two months ago, the new Bolivian water minister in Evo Morales' indigenous-led government is Abel Mamani, a neighbourhood activist veteran of another water war, in El Alto, who cut his teeth battling the French water company Suez. Mamani made five points in a speech just prior to the March 2006 World Water Forum:

- Water is a fundamental human right and a pre-requisite to the realization of other human rights;
- Water belongs to the earth and all living beings including human beings and it is the duty of everyone to protect access to water for all forms of life and for the earth itself;
- Water is a public good and therefore its management needs to be in a sphere that is public, social, community-based, participative and not based on profit;
- Water should not be privatized and should be withdrawn from all free trade and investment agreements; and
- There should be profound change in the organization of the World Water Forum to allow majority and decisive participation in the negotiations by the poorest and those who most need water.

Rights rhetorics have become important in Bolivia, as well as other sites where the balance of forces has shifted left. Other major battles –

not always victorious – have been fought in Manila, Jakarta and Detroit. Biwater was kicked out of Dar es Salaam last year, to the regret of its advisor, the Adam Smith Institute, funded by British taxpayers. Civil society movements and governments have forced Suez to retreat from major cities ranging from Atlanta to Buenos Aires to Montevideo in recent months. The firm's bid to retain the Johannesburg Water contract for another 25 years will be considered by council in June 2006, but after mass protests in Soweto, Orange Farm and other townships, is by no means secure.

The goals of progressive civil society activists, generally, are the de-commodification of water, improved access by poor people, better conditions for water workers, and more appropriate eco-management of water. The latter should include penalties for hedonistic consumption. Additional water campaigns are waged against megadams, inappropriate irrigation, fish de-stocking, water pollution, bulk water diversions, bottled water, abuse of water by golf courses and extractive firms like Coca Cola and Nestle, and looming water scarcity. On one crucial battleground, control of water by the World Trade Organization (WTO), activists appear to have just won, by exempting water from the WTO's General Agreement on Trade in Services.

Who are the contemporary water warriors engaging in these struggles? Aside from community campaigns in cities of the Global South like Detroit or Cochabamba, strong critics of neoliberal water policies can be found in radical citizens'/consumers' organizations (especially the Council of Canadians in Ottawa and Public Citizen in Washington); trade unions (Public Services International and their affiliates); indigenous people's movements; environmental groups (led by the International Rivers Network and Friends of the Earth); and think-tanks (e.g., the PSI Research Unit at Greenwich University, Polaris in Ottawa, the TransNational Institute in Amsterdam, the Agriculture and Trade Policy Center in Minneapolis, the Municipal Services Project in South African and Canadian universities, Parivartan and the Centre for Science and the Environment in New Delhi, Food and Water Watch in Washington, and the International Forum on Globalization in San Francisco).<sup>25</sup> The World Social Forum in Porto Alegre, as well as regional Social Fora, have provided spaces for water activist assemblies during the early 2000s. Email listserves such as 'water warriors', 'reclaiming public water' and 'right to water' permit information exchange and coordination. A People's World Water Forum was held in Delhi two years ago, preceded by the



2001 'Blue Planet' conference in Vancouver, as well as periodic European gatherings. Because the water movements have generated superb examples of cooperation across borders, campaigns against commodified services will continue to serve as a model for global civil society.

As the March 2006 Mexico confrontation shows, protesters are linking up with vigor. No one disputes that with at least 2.6 billion people lacking adequate sanitation and 1.1 billion lacking access to improved water sources, there is an urgent need for dramatic improvements in investment, management and affordability. Third World states shrunk during the past quarter-century of sustained structural adjustment, addled by debt payment outflows, capital flight and foreign aid cutbacks. So the resources required for water and sanitation can not often be found. Still, the primary strategy adopted by water advocates has been to defend the state as the key institution for delivering water. There are vast problems with relying on state agencies (whether national or municipal), yet in most societies it remains the institution which can best redistribute and organize resources.

As we have seen, in a setting as unequal as South Africa – with 45% unemployment and, alongside Brazil and Guatemala, the world's highest income disparities – the neoliberal policies adopted during the 1990s pushed even essential state services such as water beyond most households' ability to pay. Some of these policies were adopted before political liberation from apartheid in 1994, but many were the result of influence on Nelson Mandela's ANC by the World Bank, US AID and other global and local neoliberals during the late 1990s.

Problems associated with the neoliberal approach to basic services often relate to the dismissive regard with which positive eco-social externalities associated with water/sanitation, energy and other services are understood by neoliberals. The failure to fully incorporate social and environmental benefits of state services is typical of commodification, because when state services undergo commercialisation, the state fragments itself as water, electricity, health and other agencies adopt arm's-length, non-integrated relationships that reduce them to mere 'profit-centers'. Service disconnections follow logically.

The first stage of resistance to the commodification of water and electricity often takes the form of a popular demand for a short-term, inexpensive flat rate applicable to all consumers. More compellingly, for medium-range policy a redistributive demand for de-commodification is

advanced by groups like the SA Municipal Workers Union, Rural Development Services Network, Johannesburg Anti-Privatization Forum and Soweto Electricity Crisis Committee (SECC): a specific minimal daily amount of water (50 liters) and electricity (1 kilowatt/hour) to be supplied to each person *free*. The free services should be financed not only by subsidies from central government, but also by a rising block tariff in which the water bills for high-volume consumers and corporations rise at a more rapid rate when their usage soars to hedonistic levels. When charged at ever-higher rates, the consumption of services by hedonistic users should decline, which would be welcome. South Africa is a water-scarce country, especially in the Johannesburg area which depends upon water from socio-ecologically destructive Lesotho dams.

Can rights rhetorics support these struggles? In 2006, a crucial case will be filed that will shed light on how far constitutional and legal strategies can advance the de-commodification cause. From Phiri, Soweto, Lindiwe Mazibuko and six co-plaintiffs are suing the City of Johannesburg and Johannesburg Water Pty (Ltd) for the limitations placed on free water (at 6 kl/hh/month) and for the mandatory change from a full-pressure, unmetered, uncontrolled volume water supply (at a fixed charge) to a controlled volume water supply system using a prepaid meter. Mazibuko et al argue that 'without the choice of all available water supply options' and without supplying 50 liters per person per day as a minimum free basic supply, Johannesburg has acted unconstitutionally and unlawfully.

What the South African experience these last few years shows is that commodification of water doesn't work and will be resisted, especially if combined with cutoffs of services. These services create additional social welfare in the form of public/merit goods, but only if they are not privatized, because solely the state – if it genuinely represents society – has an in-built incentive to use services like water and electricity to promote public health, gender equity, environmental protection and economic spin-offs. Not only do privatizers ignore public goods, they are also inevitably opposed to free lifeline supplies and redistributive pricing. Hence, as so many South Africans have learned these last few years, the fight against privatization is also a fight to de-commodify the basic services we all need simply to stay alive. And by winning that fight, there is a chance that the state can be won over to its logical role: serving the democratically determined needs and aspirations of that huge majority for whom the power of capital has become a profound threat to social and environmental well-being.

The socialist strategy has always entailed making profound demands – in some discourses, ‘a transitional program’ and in others, ‘non-reformist reforms’ – upon the capitalist state.<sup>26</sup> When invariably the *class power* of capital is challenged in the process, no matter how feasible the demands are in fiscal/administrative respects, the question of socialist revolution inexorably emerges. The demands for de-commodification are popular, sane, logical and backed by solid democratic organization. On behalf of capital, the state must resist, and the South African state has typically done so by deploying the rhetoric of globalization.

Where does that leave those arguing for traditions of human rights (both civil/political and socio-economic), de-commodification and socialism-from-below? In coming months and years, four sorts of tasks present themselves:

- link up the demands and campaigns for free services, medicines and universal-entitlement income grants;
- translate these from the spheres of consumption to production, beginning with creative renationalization of privatized services, re-structured municipal work, expansion of the nascent cooperative sector and establishment of state-driven local generic drug manufacturing;
- strengthen the basis for longer-term alliances between poor and working people that are in the first instance rooted in civil society and that probably within the next decade will also be taken up by a mass workers’ party; and
- regionalize and internationalize these principles, strategies and tactics, just as Pretoria politicians and Johannesburg capital intensify their sub-imperialist ambitions across Africa.

Notwithstanding South Africa’s rights-based rhetoric and various attempts to tinker with environmental management problems through technical, market-oriented solutions, two factors are obvious: the imperatives of ecological exploitation and the impossibility of more fundamental reversals of environmental degradation. In contrast, an eco-socialist perspective starts with the very ingredient missing from virtually all post-apartheid government initiatives: popular mobilization. In this sense, the issues associated with the survival of society’s oppressed communities can only be understood and tackled through an increasing convergence of green, brown, feminist, racial/ethnic justice, and class politics.

One very hopeful sign of the last point is the emergence of radical urban social movements in the largest South African cities (Abahlali base

Mjondolo made up of shackdwellers, the Western Cape Anti-Eviction Campaign, the Anti-Privatization Forum of Johannesburg). But linkage into related areas remains of enormous importance. While these urban social movements are bound to have an increasing impact upon South African politics, a potential split between the trade unions and the ruling party in coming years is probably the most important objective precondition for the renewal of a bottom-up socialist political program. For as neoliberal economic orthodoxy continues to prevail in so many areas of South African environment and development, and as centrist sustainable-development discourses, policies and legislation fall far short of resolving the interlocking crises, it is to more radical confrontations with powerful forces that South Africa's eco-social justice movements inexorably will be drawn, with or without juridical recognition of rights discourses.

## Endnotes

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# **Thailand's water management crisis: commodification or purification?**

**Witoon PERMPONGSACHAROEN**

*"What we are facing in Thailand is not a water crisis but a crisis in the dominant system of water management."* (Editorial of Watershed Vol. 4 No. 2, TERRA: 1999)

In promoting water privatisation in Thailand, a discourse on water as an object to buy and sell has been produced along these lines: "Water is a commodity. Irrigation water is not a natural supply of water; it contains costs. Therefore, water users must pay for the costs of water and water should be used for activities that generate the highest economic returns and profit."

The World Bank (WB) and Asian Development Bank (ADB) have been promoting this privatization discourse in Thailand since the 1997 economic crisis when Thailand received financial and technical assistance from these international funding institutions (IFI's), including loans specifically for agriculture sector restructuring worth hundreds of millions of US dollars (USD).

There has been a strong resistance by the Thai public and a call to recognize community rights. The National Water Resource Committee

is currently drafting a law that incorporates management and usage of water from waterworks, irrigation and natural water sources. This law would significantly change common property rights and effectively transfer rights to water resources to the state and the private sector, with the rights of when and how much water can be used being tradable among 'water user groups'. The draft law was proposed in 1999 according to the World Bank technical assistance and the Agricultural Sector Programme Loan (ASPL) loan conditions set by the ADB that is influenced by World Trade Organization's (WTO) free trade policy.

### **Transforming the commons to commodity**

Currently, the majority of water is still considered commons. The state only controls irrigation and water works. People's use of this water source serves local economic, social, cultural, and ecological functions. Examples of water use include direct use of water for agriculture, livestock, and everyday life such as the community water management systems known as *muang faai* in Northern Thailand; and indirect use such as fisheries habitat. There is no clear, official recognition of community rights to manage water from natural sources; for example, the state can build a dam or divert water from the local use. There is no sense of guarantee although Article 48 of the Constitution broadly recognise community rights in local natural resource management.

The rapid growth in the industrial and urban sectors boosted water demand. This means taking more water direct from natural sources and shifting these from the agriculture sector to industrial and urban sector. This shift is based on the assumption that the latter will provide the best economic returns. The mechanism for this shift is the state control of natural water sources and investment in infrastructure to transport the water to meet industry and urban demand. The state has been doing this by building dams and irrigation systems so that they can allocate this water to private ownership with the ultimate goal of privatization of water utilities. In order to legitimize this shift, the state must set up a market system where ownership rights can be easily transferred.

The following three case studies highlight some of the conflicts encountered with the current water management in Thailand. Looking at these case studies, we provide alternative perspectives for water rights and management and recommendations for the water law.



### **Case study 1: Chulaporn Dam**

The development of the Prom River area in Chaiyaphum Province clearly reflects the problem of water shortage caused by dam management and shows who are affected of such mismanagement.

The Chulaporn Dam is a multipurpose dam built in the Prom River area from 1970 to 1972 under the plan to develop the lower Khong River. Its main purpose is to generate electricity while the minor purposes are for fish seed production, flood relief, and irrigation for 80,000 rai of farming area.

The Electricity Generating Authority of Thailand (EGAT) concentrated on releasing water for electricity generation more than on irrigation for areas along the Prom River since the dam only uses one cubic metre of water to generate one unit of electricity. Most water from the Prom River was sent to the power plant and down to the Sern River.

The EGAT 1993-1995 record showed that 86% of water was released for electricity generation and sent to the Sern River. Only 14% of water was released to the Prom River and none in the last four years. There was never been a single year that the EGAT released water to the Prom River to meet its 50 million cubic metres goal. Since the Chulaporn Dam started electricity generation, the villagers who previously benefited from the Prom River have suffered water shortages.

In 1993, a year after the completion of dam construction, villagers who faced water shortage along the Prom River filed complaints to the Prime Minister and the EGAT Governor at that time. Their complaints resulted in the construction of the Huay Kum Dam and None Kwao Dam in the lower Prom River. However, the dams cannot solve the water shortage because it also depended on water from the Chulaporn Dam. Moreover, the construction of the None Kwao Dam expanded the irrigated areas and increased water demands while the amount of water supply from the Chulaporn Dam remained the same. This increased the severity of water shortage and created conflicts between villagers in irrigated areas and villagers in the lower Prom River who directly consumed water from the Prom River.

In addition, changes in water flow direction and lower amount of water caused by water released from the Chulaporn Dam has lessened efficiencies of earthen and wooden weirs for water management. Both

types of weirs are local wisdom in water management from over 200 years ago. Water shortage made it necessary to heighten the weir for more holding capacity. Concrete weirs have replaced earthen and wooden weirs in every village since 1975. Still, the water problems remain unsolved and conflicts strengthened.

### **Case study 2: Mae Lao irrigation improvement project**

The Mae Lao Irrigation Improvement is a pilot project under the ASPL of the ADB. On September 4<sup>th</sup>, 2000, Thailand's Council of Ministers approved a 680 million Thai baht (40 Thai baht is approximately equal to 1US\$) loan to improve the agricultural sector in the Mae Lao Irrigation Project in Chiang Rai Province. The project was built to improve the older irrigation system built in 1950. It aimed to block and divert water from the Mae Lao River for distribution to agricultural areas. Some parts of the irrigation area that are mountainous required a 180-kilometre long canal for water distribution.

About 80-100 years ago, before the establishment of the Mae Lao Irrigation *fai* (small weir), farmers in Dong Khanun area built Chao Wor *fai* switching water from the Lao River. They dug a 500 metres long Rongthan *muang* (traditional water storage system) through which they distributed water to the farmlands in many villages in Chiang Rai Province. Rongthan *muang* water meets the Mae Khao Wang Basin through San Ma Khet sub-district, San Phak Hee sub-district, and Hua Ngom sub-district in Phan District.

The Irrigation Department started to build the Mae Lao *fai* in 1950 and was completed in 1963. The right bank area of the irrigation system replaced some former areas that used water from Rongthan *muang*. Many farmers then changed to use irrigation water. Most farmers who use water from both water storage systems never faced a situation of water shortage. In some areas inaccessible by the Rongthan *muang*, especially in mountainous areas, farmers depended only on irrigation water and sometimes face water shortages.

Today, the Mae Lao Irrigation Project covers 148,343 rai irrigation area (6.25 rai = 1 hectare). The project distributes water to only 71 percent of the area (105,600 rai).

The project objectives were:

1. To improve the efficiency of the existing old and low-quality irrigation system to use and distribute water at the required time and in the required amounts,
2. To develop forms of water management through the participation of farmers and community organizations,
3. To develop the area as a place for quality products that can serve the market demands, and
4. To develop and promote participatory activities in the developmental process.

The ABD produced many recommendations for this project, specifically on the need for increased community participation and to obtain the cost-sharing objectives. However, the recommendations were based on information that assumed that farmers were producing crops (specifically rice) for profit. This was not the case. (More information available in the Executive Summary of *A Strategy for Participatory Irrigation Management in Thailand* (ADB TA 3260-THA) and also in the book Water Privatisation in Thailand.)

In order to evaluate the impacts, especially economic, at the village-level, some sample surveys were initiated in Ban Dongkhanun of Thanthong Sub-district, Ban Tha-Hor, Ban Nong Phak Jik and Ban Pong Daeng of Sai Khao Sub-district in Phan District, located in the right bank of Mae Lao Irrigation areas.

It was found that most villagers primarily grow rice for their own consumption and only secondly for sale. Their major income came from employment and other kinds of farming. The cultivation system used both wet and dry season rice farming. The dry season rice farming started in 1986, after the expansion of irrigation system and the governmental promotion of dry season rice farming.

Half of the farmers in some villages such as Ban Tha-Hor have no rights to their own land. They have to rent farm lands from landlords and have to pay in goods. Farming costs, including production requirements as fertilizers, rice species, land improvement and transportation, were quite high as shown in the following table.

**Table 3: Production cost and income of rice farming in Ban Tha-Hor, Ban Dongkhanun, and Ban Nongtum in Phan District, Chiang Rai Province**

Category	Average Cost (Baht/rai)	Production Per Rai (Baht/kg)	Price (kg/rai)	Selling Price (Baht/Rai)	Profit (Baht)
1. Wet season rice-farming	2,137	658	5	3,290	1,153
2. Dry season rice-farming	2,310	770	3.5	2,695	385

According to the ASPL evaluation, the cost of production, especially in rice farming, was higher than Bt 1,495.10. This was not a net amount. The farmers were unable to sell all crops since they deducted half or one-third of their crops for land rental and part were for their consumption. Farmers, usually, do not get high earning from rice growing.

Due to the high cost of rice production and less income, 90% of farmer families in three villages were in debt at an average of Bt. 50,000. Their economic hardship was caused by the high cost of production and low price of goods, not the shortage of water.

The project impact was summarized as:

1. Farmers have higher cost of production than what was evaluated by the project. They also have a debt burden since they do not own the farmlands. The cost of recovery for irrigation created more economic problems for the farmers.
2. Farmers did not have the problem of production inefficiency as indicated by the project. The data of both pre- and post-improvement production gross were higher than what was evaluated by the project.
3. Farmers did not face a shortage of water because they used water from the old water storage system and the irrigation canal. The real problem was caused by the low price of agricultural products, no bargaining power, higher cost of production, and large debt burden. Solutions should not come from irrigation improvement, but in low production cost, distribution of land ownership, decrease of external production dependence and bargaining power of selling price.

From the survey of the above villagers, the following information about the ADB loan-based Mae Lao Irrigation Improvement Project was given to farmers. First, there was no irrigation service fee and farmers can continue to use water as before. Thus, the farmers agreed for the improvement and the use of concrete for the construction of irrigation

canals so that they do not need to undertake cleaning of the weirs in the traditional water storage system. The state officials also told them that water would be freely accessible.

Second, in some areas, farmers had no knowledge about the cost recovery plans. The local Irrigation Department officers never raised the issue in any of the village meetings. The officials only mentioned the construction of the project.

The fact that farmers in Mae Lao Irrigation areas were not given this significant information was in contradiction to what was explained in the Agriculture and Cooperatives Ministry website under "irrigation cost recovery" as follow:

1. Farmers should participate in the study of cost recovery of irrigation system that will be constructed in their farmland since they will take the whole responsibility in the future. This construction can be compared to the construction of household water connection in which the house owners take full responsibility for the cost.
2. The cost of water distribution is not included in the ADB loan condition. If the issue is raised, there should be a study of potential advantages and disadvantages of the self-management among water users. This might include evaluation of the service fee to be collected for each village funding for the future maintenance of community water storages such as *muang fai*, etc.

The Royal Irrigation Department officially announced that the cost recovery in Mae Lao Irrigation Project will be collected only if the construction of waterways passes across farmlands. No fee will be charged if there is no construction. Still, there was no real participation of farmers. They have not been informed about the overall impact of the project before the government's decision and the ADB loan application.

Further, in the Foundation for Ecological Recovery's (FER) conversations with the ADB, we were reminded that Thailand is the biggest rice exporter and that the Thai government subsidizes Thai rice farmers by providing free irrigation for their crops. The ADB supports the World Trade Organization's (WTO) free trade principle and this subsidy is against that principle. Still unanswered are our questions about Thai farmers who produce rice for subsistence and not for the market, as is shown in the Mae Lao Irrigation project. What are their options? Are they forced to enter the market system to pay for irrigation that farmers do not need?

### **Case study 3: Pathumthani Waterworks**

The Pathumthani Waterworks Authority is the first office of the Provincial Waterworks Authority (PWA) to transform part of its business to a private company since 1994. The Thames Water Company from United Kingdom (UK) gained concession in producing tap water for the PWA under a minimum contract that provides risk insurance for the company. This means that if the amount of water used is lower than required in the contract, the PWA has to pay compensation to the company. In 1999, the PWA paid over 118 million Baht of compensation to the company.

The terms of condition for the rights to produce and sell water made by PWA and the Pathumthani Waterworks Co. Ltd. was summarized as:

1. The Pathumthani Waterworks Co. Ltd. is the sole producer and distributor in areas of Pathumthani and Rangsit for 25 years.
2. The Pathumthani Waterworks Co. Ltd. must invest in the whole construction of the production system and part of the distribution system within the budget of 4,300 million baht (3,500 + 800 million baht).
3. PWA has to buy at least 140,000 cubic metres per day while the company can sell no more than 288,000 cubic metres per day.
4. If PWA cannot buy water at the minimum amount agreed, the PWA has to pay compensation for the company.
5. Since the private operation started, the water price was 7.89 baht per cubic metre of water (VAT excluded). The price can be adjusted on January 1st every year.

A summary report of the Pathumthani Waterworks Co., Ltd., shown in the PWA webpage, stated that the company can solve problems of water supply shortage and can serve public needs as planned within the contract period. It has the capacity to provide enough water for industrial users and meet the goal of reducing underground water use, a major cause of land subsidence. However, the same report also mentioned that the PWA was able to sell only 90,000-100,000 cubic metre of water per day because:

1. Industrial users who are the major targets of this project still use cheaper underground water with permission from the Department of Mineral Resources.

2. The Pathumthani Waterworks Co. Ltd. and the PWA have not yet constructed more distribution systems as agreed because of some limitations and budget conflict. The company said that 800 million baht was only to build seven pipelines while PWA demanded seventeen pipelines from the same amount of money.
3. The amount of water loss is very high because the older pipelines suffer leakage and could not stand the higher water pressure. The PWA hired the Thames Water International (Thailand) Co. Ltd. to lower the level of water loss to 25% within five years at the cost of 975 million baht.

Since the PWA could not sell water as planned, it had to pay 118.285 million baht to the Pathumthani Waterworks Co. Ltd. in 1999. The PWA tried to solve the problems in many ways. For example, the PWA conducted public relations activities to create understanding among industrial users; reduced water price and fees for setting up the pipelines; increased the number of household users; connected pipelines and expanded service areas to the nearby area of Ayuthaya; and cooperated with the Department of Mineral Resources to cancel the permissions given for underground water use. Still, illegal underground water use is increasing although underground water pumping in Pathumthani has been prohibited. The price of underground water has been raised to put pressure on users and convince them to turn to waterworks service.

On 25 July 2000, the PWA requested the Council of Ministers to approve an expansion of distribution pipelines under the Pathumthani-Rangsit Waterworks Project that was later undertaken by private companies in the form of a turnkey project. This means that private companies take full responsibility for the design, construction, and investment within the budget of 2,525 million baht. On 5 March 2002, the government approved the plan in principle to improve the distribution system of the Pathumthani-Rangsit Waterworks Project. Private companies received full concessions including the production, distribution, maintenance of waterworks system, gauge reading, release of notifications and receipts, money collecting, and customer services.

The question still remains; why did the government and PWA changed to full concession for the Pathumthani Waterworks Co., Ltd. when the original Build Operate Transfer (BOT) required that the private company transfer property rights to the state once the contract ends?

## Winners and losers in water privatization

After reviewing these case studies, we present the 'winners and losers in water privatisation', as follows:

First, domestic and international private companies will largely benefit from water privatisation. This is because of the following:

- There is no real competition in waterworks. The government has granted full concession to a sole company in producing tap water or distributes raw water for tap water production in each province.
- The Waterworks Authorities have signed "Take or Pay" agreements with private companies. The Authorities guarantee minimum revenue for the private companies and, in the event that the companies are unable to sell water of a minimum volume as set in the agreement, the respective authority will compensate the company for the difference, as cited in the Pathumthani Waterworks example.
- In allocating water for various activities, the state gives top priority to waterworks. This can ensure availability of water for the waterworks companies throughout the year.
- Government allows private companies to adjust the tap water price. Pathumthani Waterworks requested the MWA to increase the tap water price from 11 baht per cubic metre to 16 baht/cubic metre.
- Private companies do not have to bear other waterworks-related costs such as dam and reservoir construction. At the moment, the companies pay for raw water at a price as low as 0.50 baht per cubic metre to the Royal Irrigation Department.

Second, international financial institutions (IFI) will directly and indirectly benefit because:

- IFIs will make loans for waterworks development and other water resources-related infrastructure, as shown in Mae Lao Case Study.
- Security of production factors for industrial and services sectors that would serve foreign direct investment and economic growth in the long term. Steadily increasing investment and growth is the only means of ensuring that future Thai governments can repay the loans to the IFIs.

Third, although it is still not clear whether farmers and the public would benefit from water privatization, an obvious impact on farmers is



that they are to bear the costs of water development schemes that would thus increase agricultural production costs. This can be seen in the Mae Lao Irrigation Project and the Chulaporn Dam. Also, farmers and other social groups with little economic power are likely to lose their share in water allocation through a tradable water use-right policy since the government has to ensure water availability for the most profitable sectors such as industry and urban sectors, and since such tradable rights regime will automatically be to the disadvantage of people with limited amounts of money or those who are indebted.

### **Recommendations**

The aforementioned cases demonstrate the lack of community rights and participation and the increasing state control in Thailand's water management. The future of water management and policy must be based on the understanding and the recognition of cultural, economic and social diversity. Currently, the water bill is still in the drafting stage and that economic returns are the deciding factor for water priority.

We suggest the following three principles be applied to future policy and regulation for water in Thailand.

First, the unit of water management must reflect the complex dimensions of water use. We suggest that the starting unit of participation be the smallest unit while also reflecting bioregionalism, including dimensions of society and culture in constructing management units. The model of using the big river basins, which has been used in the past and in our first two case studies, cannot reflect the problem and reality of the small tributary. Therefore, the unit of management should be a unit that people can participate at all levels and be practical to implement. We put special emphasis on the small tributary and small ecosystem units.

Second, rights to water should be inclusive of the complexity of water usage and should represent all the dimensions of rights – not only absolute ownership rights that can be easily transferred in a market system.

The water rights have many dimensions, we identify two major dimensions here but this is not meant to be all-inclusive. The first dimension includes the rights of groups of people to use water that includes state's rights, private sector rights, and community rights. The second dimension is made up of rights that reflect the objective of water utilization (also commonly referred to in land tenure) such as rights to access, utilization, management, exclusion, and transfer rights.

As earlier mentioned, there is no clear official recognition of community rights to manage water from natural sources. The current legal system accepts only the rights of the state and private entities specifically with regards to ownership rights of property. The state only recognizes this view of water rights that narrows the participation of people and allows them to be easily traded in a market system that is not inclusive of the ecosystem or cultural values. If we expand the rights to the dimensions first mentioned, we create a check and balance system that is more likely to be sustainable and create justice for people and increase efficacy for problem solving.

Third, we suggest a management system structure that is just and efficient. We suggest separating the function or the role of the people who regulate water management from the people who use the water.

Establishing organizations to manage the water resource by the state give a priority to a centralized system. This does not give an opportunity for decentralization or participation from the people. Usually, the representation will come from the government agency or the expert that the government recognizes and excludes the local people. This is especially true when the local people are located out of the state irrigation system. To achieve the objective of justice, sustainability, and efficiency, the representative organization that will function as regulatory should be as follows:

The water management organization should have a process of participation; reflect the diversity and the idea of bio-regionalism. In practice, this will include small tributaries, medium basins, and large river basin units. The idea is that the government recognizes from small interests to big interests. As well, the national organization must represent the lower levels of management. The representation needs to reflect the reality, needs to be transparent, and should not be dominated by any special group.

This organization will function to determine the policy direction and master plan to manage the water resource with a holistic system approach. The role includes decision making for the water development project or infrastructure and providing an alternative measure and valid technique that is suitable to water management such as using the social and/or economic measure for some water use activity.

The regulation body should serve the interest of the people. The regulation body will set up a rule and regulate to ensure justice for all

user groups, solve the conflict of different groups, be transparent, and accountable.

Furthermore, we would like to emphasize that the policy or state and user should be distinct from each other. Also, the regulator should also be distinct from the state and user so as to create a check and balance system. The user should have its structure as the state and regulator have. The regulator is responsible and should put emphasis on ecological safety and justice.

On a final note, we would like to make recommendations for international rivers or transnational basins. First, all states in the transnational basin unit must work to include local people's participation. Each state's policy should provide the position, mechanism and space for the peoples' organizations to participate. The regulation body should be independent from the influence of any particular nation to ensure the regulation of justice and ecological integrity for the whole basin. Most importantly, each state must officially recognize the regulation of other countries and must recognize the power of the regulatory bodies.



# **Civil society joins hands against anti-poor ADB water policy<sup>1</sup>**

**Hemantha WITHANAGE**

## **Introduction**

The Asian Development Bank Water Policy “water for all” has been criticised by the civil society since its adoption in October 2001. While the ADB policy stated that it is pro-poor, the water projects implemented with the ADB funds have not served the poor well. The policy promotes full cost recovery, tradable water rights and private sector participation which inhibit its stated pro-poor approach. The policy set the environment for ADB’s engagement and investment in the water sector. Other than the water sector infrastructure project, the ADB policy also promotes setting the local legislative and policy environment to suit its investments in its Developing Member Countries (DMCs).

The ADB is a major player in the region in the water sector for the last two decades. The ADB’s cumulative investment financing for the water sector exceeds US\$16 billion. From the start of ADB’s operations, an average of 18 percent of its total lending has been in the water sector. This can be broken down into: 18 percent in irrigation, 28 percent in water supply and sanitation, 17 percent in hydropower and 33 percent in multi-sector water projects. By sub-region, the approved loan amount

for projects with water components in East Central Asia, the Mekong Region and South Asia for 2004 alone is US\$662.72 million. The approved technical assistance (TAs) with water components for the same areas within the same year amounted to US\$15,979.00<sup>2</sup>.

The civil society preparation meeting for the Regional ADB Civil Society Consultation held on the 18<sup>th</sup> November 2005 pointed to several ADB-funded projects in the areas of irrigation, flood control, watershed management, water supply and sanitation, and water management that led to ecological harm, displacement of people, non-achievement of project objectives, and disregard for people's participation as the ADB continues to impose a top-down planning approach that discounts people's alternatives. Therefore, the ADB 2001 Water Policy is fundamentally and structurally erroneous.

The ADB Water Policy aims to promote poverty reduction and claims to have a pro-poor approach. However, its strategies and practices have been to the contrary, leading to negative impacts on the poor. The ADB notion of water as an economic good is a departure from the long-held belief of water as a right and as a common. This reflects ADB's market-oriented paradigm in the water sector where, for instance, the problem of allocation is to be resolved by rates and prices. This subjects water allocation to the vagaries of market forces and the powerful economic interests that dominate.

Private sector participation (PSP) as it is outlined in the ADB Water Policy is no different from privatization. ADB's promotion of private sector participation is seducing big water companies to take over the fundamental role, duty and social responsibility of states to provide clean, safe and affordable water to its citizens. Private sector participation promoted by ADB and other IFIs is an attack on the sovereignty and dominion of nations over their natural resources, like water.

Past and present experiences of privatizing water utilities have only led to increased water tariffs, depriving the poor of access to water and, in some cases, taking away a significant portion of poor peoples' income. According to Jubilee South - Asia-Pacific Movement on Debt and Development (APMDD), big companies are already encroaching on the water sector in the Asia-Pacific region. These include Suez Odeco and its subsidiaries Nalco, Degremont, Hydroplus; Vivendi; and Thames Water and its subsidiary RWE.

The concept of tradable water rights has enabled private concessionaires to take, for profit, communities' right to water. Overall, implementing this idea will lead to the transfer of the right to water from low-value users (urban and rural and poor farmers) to high-value users (the rich, commercial and industrial users). Tradable rights have increased inequality between those who can afford (to connect and pay) and those who cannot afford; between urban centres and rural communities. In the end, this continuing advocacy of ADB on tradable rights will allow private concessionaires to take over communities' access to water.

The elements of full cost recovery and elimination of subsidies will only heighten social inequalities and deprive the poor and other marginalized groups of good quality water. As stated in the ADB policy, consumers can expect to meet the full operation and maintenance costs of water facilities and service provision in urban and rural water supply and sanitation systems. While subsidies can be considered, this will be on a case-to-case basis. All of this will lead to water rate increases and prevent the poor from connecting to ADB-funded water utilities.

### **ADB agenda**

The countries' water sectors were the targets of ADB's agenda. The ADB pushed to change the DMCs water policies through the Country Strategy Programs (CSPs), Technical Assistance (TAs) and Project Loans. Without meaningful people's participation, these policy changes took place without attracting much attention.

The ADB Water Policy, TAs, and the project loans isolated the constitutional responsibilities of local governments by isolating their role as 'service providers'. The governance of water was promoted as 'outside' the purview of local governments and the consolidation of the private sector participation as an alternative for water governance.

Integrated water resource management (IWRM) was offered as the sole tool for water management. However, in its practice, ADB hired expensive technocrats and experts who disregarded existing traditional water management mechanisms at the local level in project planning. This led to failures in implementation.

ADB influenced the water sector of Asian countries in three ways. First, was through the Country Strategy Programs (CSPs) agreed upon with its Developing Member Countries (DMCs) that include specific

targets and plans for policy reforms and projects in each country. In CSPs, ADB stated its intention to support and reform the policy and legal framework of their developing member countries (DMCs). All CSP's were framed according to ADB's overarching objective of poverty reduction, and promote private sector participation (PSP) by ensuring ADB's support to DMCs in providing the enabling environment, the laws and policies, for it.

The second approach was providing technical assistance (TA) that consisted of studies to aid policy reform to provide enabling environments for PSP as well as capacity building for implementing this strategy. Finally, project loans in water and sanitation, irrigation, drainage and dams that were mostly for investment-intensive infrastructure were provided.

Although the ADB's Water Policy noted that 'no single, common policy can serve as a model for all', the NGO Forum on ADB viewed the objective of 'implementing national water sector reform' as ADB's intention to intervene and push for reforming the water sector of DMCs along its 'one way highway' of Private Sector Participation as the only means towards development.

In steering the DMCs along this 'one way highway,' the ADB failed to recognize the diversity of social, economic, and cultural values held by the DMCs. The application of the ADB Water Policy should be sensitive to these values.

Imposing conditionality on loans, sometimes even against national 'constitutional rights of citizens and constitutional mandates of local and state governments' and without appropriate parliamentary scrutiny and broad community and NGO participation in the decision making process, eroded rather than strengthened democratic good governance.

### **Major critiques**

The case studies brought from around the Asia showed how the implementation of ADB water sector reform has been aggressively and inappropriately forced upon many DMCs.

The Indian, Indonesian and Sri Lankan case studies illustrated that the ADB failed to respect the laws and the autonomy of these countries. Furthermore, through loan conditionality the implementation of water sector reforms forced some DMC's to adopt policies inconsistent with the concerns and needs of its citizens.



Through ADB technical assistance made available to DMCs, the ADB was able to bring each country within its development paradigm, framework and agendas. Such assistance was pervasive in defining the management of the water sector in each country, setting national priorities, developing national and local policies, developing projects and instituting governance structures.

The focus on construction and development of water resources in ADB investment had a devastating impact on local communities and the environment. This focus was inconsistent with the overall aims of the ADB Water Policy.

“In 1996, the Sri Lankan Government set out to prepare a National Water Policy with technical assistance from the Asian Development Bank (ADB grant TA 1918, approved on 30 July 1993 for \$188,000). A water secretariat was established in 1998. The policy was approved by the Cabinet in March 2000. Its primary focus was establishing water as a commodity and an investment opportunity for the private sector, rather than guaranteeing its sustainable management and conservation. In turn, the policy led to the development of water reform projects that involve the sale of water to various areas. These projects overlooked the needs of villagers who previously enjoyed water as a common property. The 2000 Sri Lankan National Water Policy stated that water is owned by the State. The idea of tradable water rights was established through water entitlements. Full cost recovery and privatization/private sector participation was included in this policy. As a result of the public campaign, a much lighter policy was drafted. However, the policy approved by the cabinet on the 30th December 2004 still includes the elements of full cost recovery, public private partnerships and water permits. Today, several ADB water and sanitation projects take away the water rights of the local communities. A potential “timebomb” is the ADB-funded Secondary Towns and Rural Community-Based Water Supply and Sanitation project implemented by the National Water Supply and Drainage Board, which provides for the transfer of water rights”.<sup>3</sup>

‘Integrated Water Resource Management’ in principle, as it appears in the ADB Water Policy, is commendable as it takes a holistic and realistic view of the many stakeholders and the way water is used in the Asia-Pacific region. It realizes that competing uses of water must be clearly considered and managed in ADB project planning and implementation. However, the implementation of the Integrated Water Management has been problematic.

The implementation of ADB-funded water projects has, in some cases, failed to include and respect existing indigenous water management systems. This has had devastating impacts on the local communities who have traditionally relied on management systems to access water. For example, ADB's Chasma Right Bank Irrigation Project (CRBIP) in Pakistan sought to construct a 247-kilometer canal along the Indus River. Throughout project planning and implementation, the traditional rowd- kohi (hill torrent) irrigation system, which supported a large number of the population in and around the project, was destroyed. From the case studies, the implementation of IWRM as mandated by the ADB Water Policy continues to be characterized by a centralized approach based on hydrological models and large scale interventions in river systems.<sup>4</sup>

ADB-funded water projects have failed to recognize and respect existing indigenous use of protected watersheds and wetlands. In the CRBIP Project in Pakistan and in the Khulna Jessore Drainage Rehabilitation Project (KJRDP) in Bangladesh, the ADB has failed to appreciate how seasonal flooding is necessary to the livelihoods of the communities it seeks to protect. These projects have oversimplified the multiple uses of water and ignored the role of flooding for local communities.

The implementation of ADB project also has failed to acknowledge the existence of multiple water users and their rights on the river waters in its urban waters supply projects. The projects have increased the clashes between the citizens of urban areas, farmers and the city administration over sharing of river waters.

The Karnataka (India) experience shows that the existing water supply lines have been expanded without due consideration to the needs of upstream users. This caused divisions between people as 'rural against urban' people.<sup>5</sup>

The implementation of the ADB Water Policy has failed to ensure grassroots stakeholder participation. The Water Policy recognizes the importance of stakeholder participation, but that participation has failed to be meaningful. This is clear when looking at the portfolio of ADB projects in the Tonle Sap region of Cambodia, titled the 'Tonle Sap Basin Strategy'. Whilst the overarching objectives of the strategy, including conservation and promoting sustainable livelihoods, appears desirable, there has been little meaningful consultation with local stakeholders, especially in defining the strategy's objectives. To date, local people have little understanding of the series of projects proposed under the strategy,

including their functions and purposes. It has not fostered peoples' ownership.<sup>6</sup>

The Cambodia experience has also shown how river basin organizations tend to be monopolized by government departments with little participation of civil society. Whilst the development of the 'Tonle Sap Basin Management Organization' is presently at an early stage, it would appear that the organization is being developed in a top-down technocratic manner and driven primarily by the ADB, rather than evolving from the on-going decentralization process that would ensure that needs of local-level stakeholders are met. If the ADB fail to build consensus among local communities for the implementation of the integrated management of water resources, success is unlikely.<sup>7</sup>

Thus, although the ADB claims to adopt an integrated approach, more often than not the conventional integrated river basin management approach ends up as a coordinating platform for technocratic representations. Apex level consultation does not translate into stakeholder participation.

According to Chasma Case study," The CRBIP involved the construction of a 274-kilometer canal along the Indus River. It aimed to guarantee continuous irrigation water supply, ensure the efficient distribution of water, provide drainage and flood relief, improve access to water within the area, and strengthen agricultural support services. In Stage III of the project, the ADB approved major design changes, with implications for project targets, costs and outcomes. This included the alignment of the main canal to be moved further uphill to enable the use of super passages for flood flows from hill torrents. It was projected that the realignment of the main canal would expand the target irrigated area. ADB agreed to finance additional costs with funds diverted from the country's National Drainage Program that it supported. The changes failed to achieve its intended goals. Instead, the structures brought on massive flooding in the area threatening human life and the livelihood of communities. The canal was breached three times during the 2001 monsoon season. Furthermore, the CRBIP destroyed important traditional irrigation systems – rowd-kohi (hill torrent) supporting a significant proportion of the population in and around the project area. Its structures aggravated the flooding risk to the area and cut off the original source of irrigation to more than 36,000 hectares of land formerly irrigated by rowd-kohi, rendering them useless. Action-Aid argues that the project failed because

local communities were kept unaware about the CRBIP and its components. There were no institutional mechanisms for information sharing or gathering local information about funding impact".<sup>8</sup>

According to the Khulna Jessore case study, "To solve the drainage problems of this part of the mighty Ganges-Brahmaputra-Meghna River Basin, engineering consultants came up with the technical solution of dredging the rivers and simultaneously building a large regulator downstream of the area which would let water flow out but not in. Local communities affected by the Flood Control and Irrigation (FCDI) projects in Bangladesh knew that massive sedimentation would occur along the ADB constructed regulators, thereby causing water logging in vast areas to the north. The project would not solve the problem but rather would aggravate the problem in the course of time. NGOs petitioned ADB to allow the natural tidal river flow to enter the wetland area to keep the natural sedimentation and soil enrichment process".<sup>9</sup>

As mentioned in the Karnataka, India case study, the traditional control of communities over water is systematically being destabilized by allowing urban and industrial interests to compete for the access to water resources and creating conflicts by the Karnataka Urban Development and Coastal Environmental Management (KUDCEM) Project. For example, the summer months in Mangalore causes water supply shortage from Nethravathi River. The Nethravathi River Water Users Association and the other farmers are ordered not to draw water by the City Corporation and the District Administration. The livelihood of thousands of farmers is under threat due to this recent development and the expansion of water supply lanes under the KUDCEM Project has ignored this sensitive and very important rights issues. Similarly, in Sirsi, the building of a dam on river Aghanashini (near Balgar village of Siddapur taluk) to provide water supply to Sirsi was opposed by the villagers. Later, it was decided to provide water to Sirsi without constructing the dam. The District Collector, Member of Legislative Assembly (MLA), Member of Legislative Council (MLC), and KUIDFC were allowed to go ahead with the scheme only after ensuring a minimum of eight MLD water at the source and the remaining water to cater to the needs of Sirsi.<sup>10</sup>

The ADB is pushing to modify governments' role in water services from that of provider to regulator, and transferring this role to the private sector.

The Water Policy makes clear the ADB's all-out preference for

private over public. It promotes private sector participation through concessional loans. Even viable publicly-managed set-ups are still being pressured to open up to some form or another of private sector participation.

The NGO Forum on ADB contends that encouraging contracting out of core services will have an adverse impact on the quality of services being delivered. Contracting out has also had adverse consequences on labour standards as well as brought gender-differentiated impacts.

Its time for the ADB to stop unwarranted promotion of decentralization and private sector participation. This undermines the governments' constitutionally-mandated role as a provider of social services e.g. water. Moreover, the Bank's assumption that the private sector is more efficient than the public sector is a fallacy. The ADB's pursuit of water privatization is resulting in exclusion of the poor from access to water. Its undifferentiated approach transforms water into a profitable business for ADB clients such as trans-national water companies.

Instead of promoting exclusively private sector participation (PSP), a case-dependent, differentiated approach should be applied, taking into account alternative models of water service management, for example community management.

Although sanitation is a more challenging target of the Millennium Development Goals in most Asian countries, the ADB has not made significant contributions to sanitation in comparison with targets on water supply.

The implementation of the ADB Water Policy has resulted in the transformation of government's role from that of provider to regulator of water services. In the process, the ADB has assumed and promoted the private sector to be more efficient than the public sector. It continually highlights the privatization of the Metro Manila Waterworks and Sewerage (MWSS) in the Philippines to be one of the best examples of private sector participation in water service provision.<sup>11</sup> As such, it has provided technical assistance to MWSS to assist in strengthening regulation and finding new water sources.

However, studies from the ground in the Philippines and Indonesia reveal the opposite to be true. Private sector management of water service utilities has contributed to poor peoples' woes. The MWSS privatization has led to the following results, among others an increase of 500 to 700 percent of pre-privatization water rates, outbreak of disease

from unsafe water, increased debt burden of government, and no expansion in water service to marginalized communities.

Consequently, the ADB implementation of its Water Policy and PSP promotion has contributed to the poor continuing to suffer lack of access to affordable and safe water.

"The aim of the ADB funding of the Umiray-Angat Transbasin Project was to assist the MWSS in introducing private sector participation in the operation and management of MWSS sector activities. The ADB's technical assistance aimed to further promote and increase privatization of the water sector. The Freedom from Debt Coalition (FDC) points to serious flaws in the MWSS privatisation project. Transparency, accountability and public participation have all been sidelined in the project implementation process. When private outfits Maynilad and Manila Water won the water concessions, they promised a range of benefits that included the lowering of tariffs for good quality water and uninterrupted water supply. These have not been met. Instead of better service to consumers and compliance with WHO water and effluent standards, water contamination in several areas even resulted in an outbreak of cholera and gastroenteritis for more than 600 people and killing seven others. Water supply is irregular and water pressure is low. Instead of the promised de-politization, undue pressure has been applied on the government. Concessionaires now charge 500 to 700 percent higher than their beginning tariffs. Government bailed out Maynilad through its corporate rehabilitation. The MWSS Board resolution that the concessionaries are not public utilities led to passing on to consumers of payments for corporate income taxes, generating more private profit than the 12 percent profit limit on public utilities. The government is to buy 84 percent ownership in the mismanaged bankrupt company, but control of operations remains with the concessionaire. MWSS is to borrow anew US\$31 million. All in all, the project has privileged private enterprise at the expense of millions of consumers and failed to guarantee the access of the poor to safe and affordable water".<sup>12</sup>

The ADB Water Policy does not talk about protection of watersheds in water projects. The ADB Water Policy promotes the 'conservation' of surface waters, meaning to carefully tap and store the water.

The ADB promotes the notion of water as a socially vital economic good and forwards pricing as an efficient method to manage and conserve water.

The notion of water as economic good in contrast to the belief of water as a right and as a common reflects ADB's market-oriented paradigm where rates and prices are subjected to market forces. This will not guarantee humans right of access to water, in particular for the poorest and most vulnerable.

The NGO Forum questions the assumption that water is primarily an economic good. Water is a basic human need – people have a right to water in order to ensure their survival. They have an inalienable right to water, even as there are cost implications to its delivery.

The NGO Forum opposes the use of the pricing mechanism as the primary means to manage and conserve water use. Pricing is a bad form of demand management. The rich are not hindered from wasting water, but are instead encouraged to simply pay for it.

A person's right to water should not be determined by their ability to pay.

The Water Policy should give greater flexibility for continuation of subsidies. They are needed in particular contexts such as in enabling the poor to have water connections and in providing services in areas that are not financially viable but where there is a real need for water.

So-called 'evidence' that the poor are willing to pay should be reviewed and reframed. The concept of willingness-to-pay is a false one given that water is a need and people will have to pay in order to live. There is no choice. Water being available at a high cost means that there will be consequences and adjustments in peoples' needs such as food, clothing, shelter and medicine. Instead of using 'willingness to pay', policies should focus more on enabling access and achieving 'affordability', otherwise the pro-poor focus will be mere window dressing.

While ADB can advise governments to adopt cost recovery principles, in no way should the ADB coerce governments to adhere to this policy. Governments should have the space to decide and follow alternative methods. Again, the ADB should not use lending to leverage policy reforms.

Where regulation is weak, ADB may provide assistance but without any attached conditionality.

The cost recovery principle has been over-zealously applied. In some projects, users are paying capital costs as well as operation and maintenance costs. Local governments are peripheral to project design, not leading on setting tariff projections, assurances and loan repayments.

Hence divergence between unrealistic pre-feasibility projections and actual policies followed.<sup>13</sup>

The ADB Water Policy neglects the management of watersheds and the impact of urban water supply projects that could threaten the 'conservation of watersheds' that ensure water cycle.

The Melamchi Water Supply Project (MWSP) has had mixed benefits for the people of Nepal. Kathmandu Valley suffers from chronic water shortage. The MWSP proposes to divert 170 MLD of water from the Melamchi River via a 26 km long tunnel to a water treatment plant and distribution facilities in the Kathmandu Valley. For the people of the Kathmandu Valley, this project will improve the overall availability of water. Yet at the same time, in 2004 the project was referred to the Accountability Mechanism because of participation and environmental issues. Whilst the case was eventually rejected by the Office of the Special Project Facilitator, the Norwegian government withdrew their money due to the corruption allegations. Both the Prime Minister and the Minister for Physical Planning and Works are presently in jail related to these charges. As a result, progress on the Melamchi works is very slow. The original cost of the project, which remains the official one is US\$464 million, although the most recent adjusted cost estimate is US\$ 490 million. The ADB recently became the lead agency of the project. Concerns have been expressed by civil society regarding transparency, as well as civil society participation that is perceived as being on the terms of the ADB. Donor support for the project has been contingent on a series of institutional reforms that have included the introduction of a foreign, private sector Management Contractor; a reform based on PSP. Nepal's water agency, the 'Nepal Water Supply Corporation' will also to be split into five agencies. Legal reforms have been required as a part of the projects loan conditions, including a law to establish the Water Supply Management Board. Issues of equity are raised by the project, as it is estimated that due to the size of the MWSP investment the Kathmandu Valley will benefit from around two thirds of all water and sanitation sector investments over the next decade in Nepal, despite servicing only a projected population of 12% (6% at present). This is due to the high per capita costs of the Melamchi project, which are seven to 30 times the costs required to provide water in rural areas where lower cost technologies can be used. Therefore the huge investment for Kathmandu residents will hinder access to water and sanitation facilities for the rest of the country. The case study also found that inequitable connection for



poor households has not been properly addressed. Proposed tariffs mean that people using standpipes would ultimately end up paying more for a minimum lifetime amount of water; an illustration that tariff reform under ADB leadership is not pro-poor. Under the connection and tariff scheme, connections are ensured up to 30 meters from the main road, and for reduced prices between 30-50 meters. People living just beyond 50 meters, most often the poorest, will not be serviced unless paying a connection cost of US\$270, equivalent to 10 months salary. This explains why communities, from their local experiences with ADB projects, do not trust the pro-poor intentions. The case study also shows that the policy is failing to be implemented according to its main principles and goals, because of the over-zealously applied cost recovery principle. There are also concerns that because only four percent of the total project cost has been allocated for the wastewater treatment, this is not sufficient to account for the increased waste water management demands and therefore will result in environmental damage.<sup>14</sup>

According to Karnataka Case study, the focus of the KUDCEM Project in Karnataka (India) has been to expand existing infrastructure for bring more water into the city. The calculations for expanding the water supply provision to Mangalore city was based on the TA report, where the consultants referred an old report. The water availability at the vented dam was estimated to be about nine million cubic metres. In the monsoon of 2003-2004, it was realized that the capacity of the vented dam is not more than five million cubic meters. The implementing agency has not taken responsibility for this improper planning. There has not been a consideration on conserving watersheds in the catchments. The thrust is on exploiting and extracting the maximum surface water available. The planning also includes providing water to the neighbouring two towns of Ullal and Mulky, the capacity of the river to provide water and the rights of farmers has been undermined. The project calculates per-capita consumption of water according to international standards, which differentiates 135 LPD for a corporation resident and 55 LPD for a villager. This high consumption allocation is itself questionable. Calculations for financial resources for water storage, distribution, infrastructure and maintenance begin from this calculation. The loan amounts are exaggerated by consultants not based on field realities. All the solid waste management components of the project are causing pollution to streams, wetlands and rivers due to the dump yard leachates. The RRP: IND 30303 concludes that the initial environmental examination indicates no requirement for

an environmental impact assessment as the project aims to improve and sustain the urban environment in the project towns. This is misleading, as the initial environmental examination looks at aspects 'only' related to the water pollution, solid waste and other aspects only 'during' the project, but not beyond. The project fails to look at the larger impact of the project on the natural resources of the region. The introduction of vacant land tax by the Government of Karnataka to raise resources and meet the assurances given to ADB for the KUDCEM Project, has contributed to the selling of vacant lands by owners. This resulted in new constructions, felling of trees and inflow of more migrants. Mangalore is Malaria prone. The most vulnerable are the migrant labourers living in areas and not having basic civic amenities.<sup>15</sup>

The policy claims to have a pro-poor focus. To be meaningfully pro-poor would imply that investment is dependent on the development needs and consent of local people and that there is a recognition of peoples' basic rights. This would entail broad participatory local and regional development planning by multi-stakeholder representative platforms, well informed on the different development alternatives and implications of loan conditions and debt burden. A project as an outcome of such an ideal process of participatory planning would ensure co-responsibility and define participatory monitoring and evaluation schemes.

The NGO Forum finds the ADB elaborations on participation to be biased from the perspective of private sector participation (PSP). The language is ambiguous that it can easily be interpreted from a private sector interests perspective and be detrimental to the poor and marginalized. Participation has been highlighted most of all at the management level, as 'fashioned partnerships between governments, private agencies, NGOs and communities.' Instead, the pro-poor, gender- and ethnically-sensitive participation of involved communities and NGOs, in the whole project cycle – from identification of alternatives, design, environmental impact assessments, implementation, monitoring and evaluation – should be the core concept in the policy.

The policy raises crucial questions not only about who participates with whom, but how and for what? Is the ADB participating in people's development or are people participating in the Bank's project development? Is the goal of participation to mitigate negative impacts of the project on local people or to mitigate negative impacts of the local people on the project? Participation should not be used to legitimize projects.

Poor and indigenous people should not be mainstreamed. They should not be made to pay the full tariff or be cut off from subsidies. Indigenous people should not be submerged in privatization or have their cultural identities homogenized. It should be stated explicitly that mainstreaming is a differentiated approach, ensuring that specific needs and concerns are met, especially the right for water (and land). Indigenous peoples' right to Free Prior Informed Consent, as outlined in some national laws, should be respected (as for example in the Philippines).

Gender focus, as well as the pro-poor focus, should be enforced in practice, with measurable disaggregated indicators. These have not been implemented so far, making it impossible to evaluate the real impact on poor and/or women (WaterAid Case study).

The terminologies used by the ADB Water Policy are vague and misleading, such as stakeholders, NGO stakeholders, civil society, water users etc. These terminologies can be conveniently interpreted to bring 'good water governance'.

The ADB's notion of forcing government's role from provider to regulator and equalling municipalities with other state agencies is debatable.

In the headlong rush to implement projects in the water sector, the ADB was consistently heedless of fostering and establishing genuine peoples' participation in each project. In the country experiences, it was consistently cited that for the most part, the people were unaware of project plans and purposes, especially the ones who were most affected by projects. This has resulted in grave consequences in many of the projects already mentioned.

In projects that carried out consultations with people, the meetings were only carried out to fulfil project obligations and did not really mean to take note of what the people had to say. The issue of genuine peoples' participation in ADB projects is the most critical one, given that the purpose for all of these initiatives should be to benefit the people. In its principles, guidelines and project documents, the ADB is keen to point out that it undertakes consultations with the people. Experience has shown that this is definitely not true.

While decentralization is in principle a good concept, the unwritten policy implemented by the ADB is that once decentralization has been implemented, governments detach from the projects and services. Along with this, financial support for the water facilities comes to an end. This

is exacerbated by the Water Policy's promotion of the removal of subsidies. Consequently, the water facilities are left with no choice except to raise water rates.

In summary, autonomy often leads water services to bankruptcy which becomes the opportunity for the private sector to intervene. Instead of being used to foster good governance, decentralization has become a way for government to abscond on its responsibility to provide water to the public.

The interference with national policy reform, in combination with top down approaches, hampers the achievement of democratic good governance. It has seriously undermined parliamentary or local government processes in Indonesia and Sri Lanka.

Moreover, ADB supports authoritarian regimes in some Asian countries. Working with non-democratic forces puts into question ADB's proclamation of good governance as a pre-condition for poor people's access to water. The Melamchi Water Project in Nepal was infamous for corruption. Still, ADB continues to support the project.

This ADB Water Policy has encouraged in India, in the name of furthering the 74th Constitutional Amendment and decentralization process, to promote 'model state agencies' or 'Special Purpose Vehicles (SPVs)' to implement its projects that encroach the constitutional mandate of local governments. This is to delineate water from the mandate of local governments and carving a framework for 'water governance' in the hands of private sector. The policy conditionalities attached with every loan would make way for this to happen.

## **Conclusion and recommendations**

The overriding conclusion, founded on the general critique of the ADB Water Policy is that the Water Policy is fundamentally flawed in its central tenets and structure. As a result it is not achieving its self-prescribed objective of 'Water for All' and is therefore failing the needs of the poor.

Therefore, the principle recommendation of the NGO Forum on ADB is that a complete review of the ADB Water Policy must be conducted. The review process must involve meaningful participation of all stakeholders, and be designed to objectively examine the fundamental principles on which the policy is constructed.

The ADB founds its Water Policy on the central tenet that 'Water is a socially vital economic good'. Yet, more fundamentally, water is a basic human need and therefore a human right. This report concludes that there is an inherent conflict between the ADB's position of water as a 'socially vital economic good' and that of water access as a human right. The NGO Forum recommends that the ADB Water Policy be reoriented that peoples right of access to water is placed unequivocally foremost, such that all ADB supported Water Sector projects place every persons' right of access to water central to project design and implementation.

The promotion of PSP has led to negative impacts on water utilities, raising tariff rates and ultimately leading to increasing burden for the poor. There is a fine line between PSP and privatization which was arguably crossed in some case studies presented directly impacting the poor. Therefore, we conclude that PSP should not be promoted as the only approach to managing water services. Where PSP is found to fail, the burden should not be transferred to the poor in the form of rising tariffs and decreasing quality of service.

Tradable water rights allocate access to water along economic principles, favouring the rich over the poor, and the market over human rights. Not only is this unjust and inequitable but also threatens the arrival of commercial and industrial users whose presence is often not in the local users' interests.

Therefore, we conclude that 'Tradable water rights' should not be used as a management tool. The NGO Forum recommends that sharing water resources should be dealt within the existing concepts of water as a common good. Water allocation protocols should be sensitive to economic, social and cultural considerations.

Full cost recovery is promoted in ADB's Water Policy, identifying that the poor are willing to pay the increasing fees. In fact, the poor have no choice but to pay costs of water, whether they are willing or not. The combination of full cost recovery with private sector operation is particularly worrisome. Whilst the ADB Water Policy does deal with circumstances under which subsidies might be appropriate, it is clear that they are meant to be used only as a last resort. We therefore conclude the overall emphasis on full cost recovery should be reduced in the policy, and more flexibility promoted in the use of subsidies for the poor.

The ADB should, in no way, coerce governments to adhere to cost recovery principle, namely by attaching conditions to loans. Governments should have the space to decide and follow alternative models. Where regulation is weak, ADB could provide assistance, although conditions should not be attached to the TA and support should be culturally and socially sensitive.

In numerous cases, the ADB has been found to promote, sometimes aggressively via technical assistance grants and loans, the adoption of its Water Policy in DMC's national policies and laws. Approval of loans has been directly linked to the countries' undertaking policy reforms in some cases. The NGO Forum calls on the ADB to de-link loans from conditionality. Financial and technical assistance must not be made contingent on legal and institutional reforms. The Bank must respect the Constitution and laws of each country. Any proposed reform process must be brought into the public domain. The ADB should recognize the diversity of social, economic, and cultural values held by DMCs and that application of the ADB Water Policy should be sensitive to these values.

The NGO Forum has no argument with the principles of IWRM being promoted, and that integral to this approach is the formation of River Basin Organizations (RBO). Yet, the policy does not recognize existing indigenous and local water management systems, instead it promote a technocratic approach to IWRM and RBO. The NGO Forum calls on the ADB to recognize and respect existing indigenous and local water management systems.

Local-level stakeholder participation is central to the successful establishment of RBOs, yet the ADB Water Policy fails to adequately recognize that RBOs should arise from locally perceived needs, for example that which might come up from a country's decentralization process. The IWRM can only be successful when the RBO is founded on the participation of organized local community stakeholders such as village community groups and community-based natural resource users groups. To ensure meaningful participation, participation must come from the bottom-up and not be imposed primarily from the top-down.

Regarding water allocation under the IWRM, the ADB water policy promotes DMCs to adopt participatory and negotiated approaches that include tradable water rights. This is a confusing and dangerous concept that needs further clarification from the Bank. The NGO Forum opposes the notion of tradable water rights where they infringe on peoples rights

to water to fulfil basic needs including for their own subsistence. Allocation of rights to water use should not be left to market forces.

The World Commission on Dams (WCD) presented its findings in 2000, which were widely accepted by diverse stakeholders as a minimum standard to ensure environmental protection and social measures. The ADB is yet to fully adopt the recommendations of the WCD. The NGO Forum deplores the environmental harm and dislocation of peoples wrought by large dam projects. NGO Forum demands that the ADB adopt fully as a matter of priority the recommendations of the WCD.

In considering the maintenance of critical watersheds, the ADB Water Policy refers to ADB's policy in forestry, which has been under a prolonged review process and the current status of which is uncertain. Watershed and wetland protection is identified by the ADB as an integral part of water resource management and it will promote wetland conservation and improvement. Exclusive conservation measures may lead to conflicts with local communities, especially indigenous peoples.

The ADB should acknowledge that indigenous populations commonly live and derive their livelihoods from watershed and wetland areas, and recognize and respect existing indigenous use of these areas within their watershed conservation plans.

The ADB water sector projects promoted alter flooding patterns, and that have demonstrated no consideration of locally suggested solutions. This has occurred due to a preference for technical solutions over solutions that recognize that flooding is a natural process that is integral to the livelihoods of water and wetland users. In the formulation of policies and programs aimed at improved management of floods, appropriate consideration should be given to flood dependent communities and, where suitable, alternative project designs considered, based on local experience.

The case studies examples demonstrated environmental damage, social impacts, and inappropriately compensated resettlement. ADB should ensure that all environmental and social safeguards are rigorously followed, and be held accountable where they are found to fail. These should include covering the costs of any environmental damage incurred. Furthermore, compensation should be provided in a timely manner.

The NGO Forum cases studies concluded that in many instances the ADB Water Policy had worked to undermine Government's role as a provider of social services, for example in promoting the privatization of

water utilities. The ADB should recognize that Governments have a constitutionally-mandated role to provide services to the people and in no way should the ADB pressure governments of DMCs to abdicate this role.

The NGO Forum case studies have demonstrated as a fallacy the Bank's assumption that the private sector is necessarily more efficient than the public sector, for example in the private-sector management of water services in Indonesia and the Philippines. The ADB should stop unwarranted promotion of private sector participation. Loans should not be designed to be contingent on PSP. Alternative models of water service management, for example community management, should be promoted.

Pricing water is an inequitable means of demand management, particularly in water stressed areas, because the rich are not hindered from wasting water but instead encouraged to simply pay for it. A person's right to water should not be determined by their ability to pay.

The ADB should ensure effective implementation of its safeguards on subsidies as they are needed in particular contexts to enable the poor to have water connections, and for providing services in areas that are not financially viable but where there is a real need for water.

The assumption that the poor are willing to pay for water services, which is an integral concept of the ADB water policy, is questionable because water is a need and people therefore must pay in order to live. Water being available at a high cost means that there will be consequences and adjustments in other people's needs such as food, clothing, shelter, and medicine. The ADB should re-examine evidence for peoples' willingness to pay. Instead of using willingness-to-pay, the ADB Water Policy should focus on enabling access and achieving affordability.

The issue of genuine people's participation in ADB projects is a serious one given that the purpose for all of these initiatives is to benefit people. In its principles, guidelines and project documents the ADB refers to its consultations with non-governmental stakeholders. The NGO Forum case studies have raised a crucial question around who exactly is participating in these consultations. Of the case study projects that carried out consultations these meetings fulfilled the project obligations only.

To implement a real pro-poor strategy, ADB should ensure meaningful participation from the design stage. Peoples' participation should not be used simply to legitimize projects, instead it should relate to investment in local peoples' development needs and consent, and involve broad



participatory local and regional development planning by multi-stakeholder representative platforms.

The language of the policy is biased towards the paradigm of private sector participation (PSP). Where this is not clear the language is imprecise enough to be interpreted from a PSP perspective.

Participation must be bottom-up making clear different development alternatives and their implications for loan conditions and the debt burden. Projects coming from this model will ensure co-responsibility and require participatory monitoring and evaluation schemes.

Water governance is, in many cases, being taken out of the hands of local government and put into the hands of the private sector. The ADB Water Policy makes no reference to the fact that water governance is overwhelmingly part of local governance.

The ADB's Water Policy should acknowledge and promote water governance at the local government level. However, the decentralization process should not exempt national governments from their responsibility for providing water services.

The policy takes up gender concerns but the ADB has not addressed these concerns effectively in project implementation.

The ADB should implement its gender focus from project design, implementation, monitoring and evaluation with clearly disaggregated indicators.

Good Governance is an essential component of the ADB Water Policy. Yet the ADB supports governments that have demonstrated disregard for the principles of good governance? ADB should not support high-risk projects in countries that have a bad track record of human rights violations.

In pursuance of the Water Policy, ADB projects promote parallel structures to manage and Special Purpose Vehicles (SPVs) to implement projects. The experience shows that these structures isolate and are not accountable to local governments, thus leading to centralization. The NGO Forum on ADB further recommends that ADB should not promote parallel structures to the local governments.

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## Endnotes

- <sup>1</sup> This article is based on the NGO Forum on ADB Submission to the ADB Water Policy Implementation review regional Civil Society Consultation held on the 18th November 2005. NGO Forum on ADB prepared the final synthesis report entitled "Running Dry" based on eleven case studies prepared by its members organization from India, Sri Lanka, Bangladesh, Pakistan, Nepal, Cambodia, Indonesia, Philippine, and Korea.
- <sup>2</sup> Jubilee South Asia-Pacific Movement on Debt and Development, 2005.
- <sup>3</sup> Sri Lanka National Water Policy Reforms – Kirindi Oya Irrigation and Resettlement Project Prepared by Dilena Pathragoda, Centre for Environmental Justice and Mihimaw Foundation – November 2005.
- <sup>4</sup> Violation of ADB's Policies and Procedures in CRBIP: A case study prepared by Azhar Lashary, Action Aid- Pakistan-, November 2005.
- <sup>5</sup> Karnataka Urban Development and Coastal Environmental Management (1999-2004) prepared by Budhya (2005), Urban Research Centre, Bangalore, India, November 2005.

- <sup>6</sup> The Expansion of ADB Influence in Cambodia's Water Sector: Judging the Effectiveness of ADB Water Management Projects in The Tonle Sap Lake Basin. Dr. Carl Middleton, Fisheries Action Coalition Team (FACT), Cambodia, November 2005.
- <sup>7</sup> Ibid.
- <sup>8</sup> Chashma Right Bank Irrigation Project (CRBIP), 1993-2009 prepared by Azhar Lashay (2005), Action-Aid Pakistan.
- <sup>9</sup> Khulna Jessore Drainage Rehabilitation Project (KJRDP) prepared by Zakir Kibria (2005), Bangla Praxis, Dhaka, Bangladesh.
- <sup>10</sup> Karnataka Urban Development and Coastal Environmental Management (1999-2004) prepared by Budhya (2005), Urban Research Centre, Bangalore, India.
- <sup>11</sup> ADB Water Policy" Water for All" October 2001.
- <sup>12</sup> Manila Metropolitan Waterworks and Sewerage System (MWSS) – Umiray-Angat Transbasin Project (UATP) Prepared by Freedom from Debt Coalition – Philippines.
- <sup>13</sup> WaterAid Case study for the ADB water Policy Implementation Review 2005.
- <sup>14</sup> Melamchi Water Supply Project (2001-current) prepared by Ram (2005), Pro-Public.
- <sup>15</sup> Karnataka Urban Development and Coastal Environmental Management (1999-2004) prepared by Budhya (2005), Urban Research Centre, Bangalore, India.



# **Privatization versus public-public partnership in Malaysia: Corporate agenda, retreat of the state and shaping of a water crisis**

**Charles SANTIAGO**

## **Introduction**

Privatization of water resources is big business. In fact, the water sector is a multi-billion Malaysian Ringgit (RM) industry. The 2000 National Water Resource Study<sup>1</sup> indicated that 62 water projects amounting to RM 51.6 billion (US 13.6 billion) have been estimated until the year 2050<sup>2</sup>. Of the total, an amount of RM 15.4 billion would be spent between 2000 and 2005. The business papers indicate that the total budget for the 50-year period could potentially increase to RM 77 billion<sup>3</sup>. A recent presentation by the Ministry indicated that the quantum would be RM100 billion including sewerage<sup>4</sup>.

The privatization plan involves the handing over of the management of water-supply-related resources to the private sector – organized around the dictates of the market and premised on profitability. Furthermore, it entails the private management of the various components in the water supply chain including production, operations, maintenance and rehabilitation of treatment plant, distribution and billing. Water conservation is the responsibility of the state.

The viability of privatization depends on the ability of private players to make profits. By organizing the management, distribution and access to water around the rules of the market, decisions relating to the water sector will be governed by the need to generate profits, increase the stock values of privatized companies and other investment considerations. This would mean implementation of full-cost recovery, increase in tariff rates and disconnections in order to make private sector investment economically viable.

The privatization exercise will be organized as a concession contract, a build-operate-transfer (BOT) or build-own-operate-transfer (BOOT) contract, with a dominant role for the private sector. It appears that concession contracts and private-public partnerships<sup>3</sup> are a preferred arrangement in the water sector in most countries. The BOT and BOOT contracts shift the responsibility for financing, building, and operating water facilities, such as treatment plants, from the government to the private sector.

Privatization is being pushed as the only solution without considering other alternatives. Specifically, privatization is perceived as the most effective, efficient and sustainable option in managing the water supply system at a time when the country is confronted with problems of scarcity and high water stress, although the country is endowed with enormous amounts of rainfall. Privatization in the water sector was initiated in 1987 and is presently in various stages of development in the country.

The privatization of water supply is taking place at a time when the cost of other essential services necessary for the survival such as healthcare, infant food, rental, food, petrol and cost of education are escalating and marginalizing the poor and vulnerable groups. The increase in water tariff and potential disconnections because of water privatization will surely push the poor further to the edge. In fact, as water becomes more costly and less accessible, poor families will be forced to make trade-offs between water, food, education, and health-care.

Furthermore, there is a concern that the principles of social equity, environmental protection and promotion and access to water for all at affordable prices will be sacrificed in the process. People fear that the privatization of the water supply network will lead to the handing over of vital resources of the nation to vested interests – a phenomenon that has plagued the nation and depleted its resources in the last two and a half decades.

## Background

Urban centers were the early beneficiaries of treated water supply after independence in 1957; premised on economic viability and high population concentration. The expansion of urban water services took place in the context of Malaysia's five-year national development plans, beginning with the First Malaysia Plan from 1966-70. The development and expansion of the water supply system and access were critical to the overall development of the country.

The Asian Development Bank (ADB) and the World Bank provided low-interest loans for the expansion of urban water services. An ADB loan of USD 105 million in 1992 helped improve the water supply in 24 districts in seven states: Kedah, Melaka, Negeri Sembilan, Pahang, Perak, Perlis and Terengganu<sup>6</sup>.

The development of rural water supply was given priority in the Third Malaysia Plan from 1976-80. The rural water supply came under the purview of national development strategies after a ten-year period as compared to urban centres because it was uneconomical and state governments could not afford them. The initial rural water supply network was around areas that bordered the urban water supply systems and land development schemes of the government and related agencies. Subsequently, Malaysia Plans emphasized greater investment in water supply in rural areas of the country.

A major success of the government's development strategy was the provision of affordable and universal access to water for its people. This was possible through cost sharing between the federal and state governments. The federal government provided the interest-free loans for capital investments while the state governments provided subsidies for water rates.

Malaysia's five-year national development plans successfully realized access to drinking water for its entire population. Approximately 23 percent of the population had access to clean drinking water in 1950 that increased 51 percent in 1970. By the end of 1997, about 96 percent of the urban population and 86 percent of the rural population had access to public water supply. A national coverage of 91 percent water access was achieved in the country<sup>7</sup>. Based on the Seventh Malaysia Plan (1996-2000) estimates for the year 2000, approximately 95 percent of the population would have had access to drinking water supply coverage<sup>8</sup>.

***Demand and supply of water***

There is a mismatch between supply and demand for water in the country. The Malaysian Water Industry Guide 2001 indicates that from 1995-1999, demand for water increased by 18 percent but the supply capacity increased by 14 percent only. The Eighth Malaysia Plan anticipates that the demand for water for domestic and industrial use will increase by 5.4 per cent per year from 2001 to 2005<sup>9</sup>. The National Water Resources Study 2000-2050 indicates that total demand for water – industrial, domestic and irrigation – will increase by 63 per cent between 2000 and 2050. Specifically, the demand will increase from 10,833 million cubic meters in 2000 to 17,675 million cubic meters in 2050<sup>10</sup>.

The country has more than 478 water treatment plants with a total production capacity exceeding nine million cubic meters per day. Malaysia has one of the highest rainfall figures in the world, with an annual average of about 3,000 mm (118 inches). Yet, this does not mean availability of unlimited supply of water to meet the ever-increasing demand for water in the country.

Malaysia faces a potential water crisis especially in water-deficit states, including shortage of drinking water and periodic droughts that has serious ramifications on the economic life of the nation and social life of people. Thus, water supply planning is an important challenge to Malaysia; and there is a need for a multi-stake holder responsibility.

The water shortage in the country is a direct outcome of a development trajectory that promotes economic and material pursuits, and destroys the environment. A lack of political will on the part of the state, poor enforcement by the authorities, wedded to a lackadaisical citizenry, contributed to a sad state of affairs that can potentially deny people the necessity of life, water. This is a problem where the state, private sector and the people are jointly culpable.

The gross exploitation of the environment – over-logging, development of hill land leading to excessive soil erosion and landslides, logging and destruction of water catchment areas and people treating rivers as rubbish bins – contributed to the shortage of water. Logging in catchment areas should not be allowed, given the water shortage, drying reservoirs, and river siltation. Furthermore, commercial and housing development around catchment areas, and excessive river pollution caused by commercial chemical waste, have exacerbated the problem.



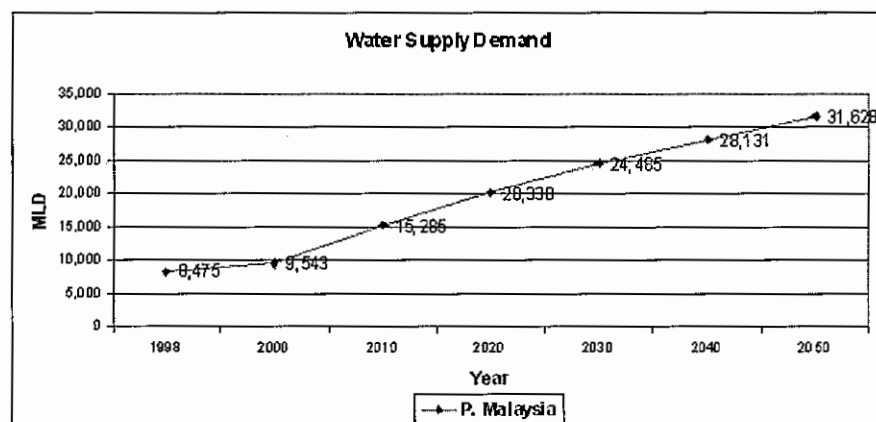
### ***Water demand***

The demand for water is due to the increase in the population of the country, population concentration in various urban industrial centres, changing consumption preferences, and growth of commerce, industry and agriculture. Between 1950 and 1980, the demand for water largely came from an increasing population. However, after the 1980s, a significant proportion of the demand for water was a result of an expanding industrial economy. The demand for water increased exponentially with the introduction and expansion of the auto and electronics industry and the proliferation of golf courses in urban cities.

There is a mismatch between the demand for water and the availability of water in terms of spatial distribution of rainfall. In the 1980s, the West Coast states where economic growth and population concentration are high received less water compared to the East Coast states. Growth in the demand for water in commercial centers, such as the Klang Valley, Penang, Melaka, and South Johor was estimated between 5-8 percent<sup>11</sup>.

The Malaysian Public Works Department Report (CBA/JKR 1998) indicates that since the 1960s, the water demand in the country has increased at an average rate of 9-10 percent<sup>12</sup>. As a result, the number of urban areas facing water stress (situation where the annual rainfall is unable to meet the economic and population demands) increased.

In 1950, there were 100 treatment plants producing 195 million litres of water per day (MLD) for a population of 1.15 million in Peninsula Malaya, representing approximately 23 percent of the urban population. All the major towns had treated water supply systems at that time. In 1998, there were more than 478 treatment plants producing approximately 9,870 MLD, serving a population of 19.8 million. The new mega projects undertaken to respond to the increasing urban demand for water were within the production range of 500 MLD to 1,000 MLD, about seven times the production capacity of the late 1950s.

**Figure 1: Water supply demand – Peninsular Malaysia**

Source: National Water Resources Study Master Plan

Figure 1 illustrates the projected demand for water supply for Peninsular Malaysia for the next 50 years (2000 – 2050), with an expected increase of 2.43% on average annually. The National Water Resource Study Master Plan was commissioned to guide the development of the water sector in Peninsular Malaysia.

### **Water shortages**

Water shortages and other water-related woes appear to be increasing in frequency and severity. In the last two decades, many parts of the country faced water stress conditions inflicting extensive damage to agricultural production, resulting in low industrial output, and causing major disruption to social and economic life.

In 1977-78, droughts devastated paddy production in most of the irrigation schemes in Northwest Peninsular Malaysia<sup>13</sup>. In 1982 and 1991, the critical drop of water levels at the Pedu and Muda dams in the state of Kedah, resulting in cancellation of the off-season crop production, were due to droughts. In 1991, the state of Melaka faced critical water problems with water levels falling below critical levels, thereby forcing severe water rationing for months in the state.

In 1998, the *El-Niño*-related drought caused severe water stress in the states of Kedah, Penang and Selangor<sup>14</sup>. The state of Selangor imposed severe water rationing in Kuala Lumpur and Petaling Jaya for

many months<sup>15</sup>. In 2002, droughts destroyed thousands of hectares of paddy in the state of Perlis<sup>16</sup>.

In 2003, with the blessing of the Kedah state government, a Sarawak-based timber company attempted to undertake helicopter logging in the 122,798 hectares of water catchment forest in Ulu Muda Forest Reserves in Kedah. Catchment areas provide water resources to the downstream areas for irrigation, domestic consumption, and manufacturing. The Ulu Muda Forest Reserves provides water for the Muda rice plains, for domestic households in the states of Kedah, Penang and Perlis, and for the manufacturing industries in Penang and Kedah. Water from the catchment area supports the Muda Agriculture Development Authority region, which accounts for at least 45 per cent of local rice production and thus, has an impact on the income and livelihood of rice farmers.

If the Ulu Muda forests are logged, "there are increased risks of erosion and sedimentation, which may affect water supply with greater risks in the decline of rice and industrial production, and less availability of water for domestic use"<sup>17</sup>. Clearly, the logging of the Ulu Muda catchment area would have an enormous impact on the economic and social life of people and would create a water-scarce environment in the state. An obvious question: What were the motivations behind the state government's decision to log the catchment area - the future interests of the state and its people, conservation or private and personal interests?

In 2007, the Klang Valley is poised to face water shortages<sup>18</sup>. The demand for water and supply capacity will begin to narrow. In 2008, the state of Selangor and the federal capital, Kuala Lumpur, would have a water deficit of 118 MLD caused by the demand for water (4,671 MLD) exceeding the supply capacity (4,553 MLD)<sup>19</sup>. The demand for water in the Klang Valley rises by six per cent a year. Water demand in the Klang Valley is estimated to double to 7,642 MLD in 2020<sup>20</sup>. Syarikat Pengeluar Air Sungai Selangor (SPLASH), the concessionaire of the Kuala Kubu Baru dam, indicates that the current water supply situation in the state is critical, given that existing treatment plants are already operating at full capacity. The dam is just a stopgap measure, as new supply must be pumped in by 2007<sup>21</sup>.

Water shortage problems are not new to the Klang Valley<sup>22</sup>. In 1998, due to the *El Niño* phenomenon, the country received rainfall that was well below average, exacerbating the existing water shortage in the state. The government rationed water supply to 1.8 million residents in the Klang

Valley; the residents received water for only twelve hours on alternate days. The amount of water in reservoirs fell to critical levels increasing the possibility of contamination.

Warnings of a potential water shortage in the Klang Valley were raised by various quarters. On June 26, 1997, almost a year before the drought struck, Rozali Ismail, executive chair of Puncak Niaga Holdings, which treats and supplies water for Kuala Lumpur, had this to say:

*"... Based on our assessment, the water shortage problem will be critical next year [1998] . . . The growth in the water demand, which has exceeded the state's projection, coupled with the problem of low pressure and pipe leakages, will give rise to a situation in 1998 where there will not be enough water to be supplied to consumers in the state"*<sup>23</sup>.

The factors that led to water shortages are environmental degradation, industrial waste, economic activity and pollution of water catchment areas. Furthermore, massive logging and housing development near the catchment areas reduces the capacity of catchment centers to retain rainwater. In the state of Selangor, the Batu 11 Jalan Cheras Water Treatment Plant was closed 11 times during the 1998 drought period. This was due to excessive levels of ammonia in the catchment's raw water, suggesting sewage contamination<sup>24</sup>.

The Department of Environment indicates that since the 1980s, sewage effluent was the main source of pollution of inland water and poses the greatest health risk and spread of water-borne diseases. Contamination of catchment areas leads to potential health risk, expensive upgrading of water treatment plants and may result in a drastic reduction of water supply capability as seen during the 1998 drought. Even if there is high rainfall, catchment areas will not be able to secure and retain water if the ecological integrity of the catchment area is compromised.

In Malaysia, surface water from rivers and streams constitute about 97 percent of raw water processed for consumption. There are 76 rivers in Peninsular Malaysia, 22 of which are classified as polluted; another 44 are described as slightly polluted, and the remaining 10 rivers are said to be clean<sup>25</sup>. There is an increasing degradation of rivers particularly those rivers that flow through urban and industrial centres<sup>26</sup>.

Furthermore, a water stress condition is a result of unsustainable household or domestic water consumption patterns. In the 1970s,

Malaysians consumed less than 200 litres per day (LPD) per capita. In the 1980s, water consumption increased to about 250 LPD. At present, it is estimated to be about 300 LPD. A recent study indicates that average water consumption per person in urban centres is about 500 LPD<sup>27</sup>. The United Nations international standard for water use is 200 LPD. Malaysians use treated water for toilet purposes, washing cars, watering gardens and cleaning houses. It might be necessary to introduce rainwater harvesting for non-essential activities.

### ***Which model***

The increasing demand for water and the need to produce sufficient supply in order to avert a potential water crisis has led to a debate on the most effective and efficient way to manage water resources in the country. The federal government and the corporate sector are pushing for privatization as the effective strategy. However, there is another prevailing water management approach in the country that can be used as a 'model' to promote public-public partnership based on best practice. These approaches are evaluated below.

## **Privatization**

### ***Logic of Privatization***

Privatization is being put forward as the panacea to high water stress, potential water scarcity environment and other water woes in the country. Specifically, it is believed that privatizations would enable water companies to process, manage and distribute water resources efficiently, equitably and in a sustainable manner<sup>28</sup>.

Privatization as a business model allows the private sector to finance needed infrastructure, to remove the necessity of governments to carry debt and, and to improve the efficient delivery of service to the public. Over the years, the privatization approach has become an effective strategy in the outsourcing of public services.

Privatization promotes the notion of full-cost recovery, transforms water into an economic good and pushes for new arrangements in the management of water resources, namely concession contract or private-public partnership. Three rationales underlie this phenomenon. First is the notion that an economic valuation of water, i.e., water pricing, will lead to efficiency, equity and sustainability of this resource. Furthermore,

consumers should pay full-cost pricing for treated water, like any other commodity.

Water resources, at present, are highly undervalued and serve as a disincentive to use water efficiently. It is suggested that water pricing reflecting the true value of water including its opportunity cost, would lead to a decrease in water wastage<sup>29</sup>. Thus, water pricing ensures a more efficient and sustainable use of water coupled with a better allocation of water resources among its various uses<sup>30</sup>.

Full-cost pricing or recovery entails the elimination of all subsidies and cross-subsidies by the state. Water corporations in about 10 countries have introduced pre-paid cards for the consumption of water. Corporations prefer such a method because the pre-paid card system, *inter-alia*, guarantees full-cost recovery, quick detection of water theft, substantial administrative cost savings and self-disconnection, since the service is terminated once credit is depleted<sup>31</sup>.

There is a real possibility that pre-paid water cards will be used in Malaysia in the coming years. At present, the local power company has introduced pre-paid meters for electricity consumption. These pre-paid meters have been installed in various housing estates on a trial basis in the country in order to ensure full-cost recovery. Pre-paid cards for electricity use are expected to be installed widely beginning 2005<sup>32</sup>.

Second is the notion that the market is the proper locus in which to organize economic activity (given that the state is inefficient). The market is perceived as an efficient allocator of resources among competing users and is able to achieve socially desirable outcomes.

The policy response then would be either to hand over the entire responsibility of managing the provisioning of services to the private sector or to increase the level of private sector participation in providing public services. Although both these approaches are being practiced, it appears that the increased participation of the private sector in providing public services is preferred and dominant<sup>33</sup>.

Third, privatization is being put forward as the most efficient method in which to reorganize the management and distribution of scarce water resources. Thus, the role of government in managing the economy or regulating a particular sector or industry has to be reduced.

In this view, the public sector is inefficient, corrupt and its services are loss bearing. Federal and state governments promote privatization in

order to reduce their respective 'financing burden' and eliminate existing subsidies for consumers<sup>34</sup>. As a result, both the federal and state governments encourage private-public partnerships, with a dominant investment role going to the private sector. The private sector is perceived as a more efficient and cost-effective provider of basic services, including water. The Second and Third World Water Forum widely promoted the notion of privatization and public-private partnership.

An economically dominant and expanding role of the private sector comes with a price. The state will have to provide an assurance on private sector rate of returns, i.e., profitability on their investments<sup>35</sup>. Such an assurance requires organizing a pro-business environment for the water sector. This involves implementing reforms to existing institutional, legal and financial frameworks in which businesses can operate profitably. A key demand would be to have an accommodating policy on water tariff.

Malaysia's water corporations have called on the government to allow for the "revision of water tariff to make the water concession and management business more viable". Recently, the president of Ranhill, a leading water corporation in the country, indicated that the "more important issue is for the local water industry to shift from being a subsidized one into an economically-viable undertaking". The water corporations believe that water tariffs should reflect its cost of production. In addition, these corporations are requesting that the government create an infrastructure for long-term financing<sup>36</sup>.

Reforms promoting a privatized environment include: a) formalization and clarification of property rights for water by the federal government; b) implementation of full-cost pricing or recovery principle to improve the efficiency of services; and c) recognition of the economic value of water or economic pricing of water and its reflection in national policies and strategies by 2005, and mechanisms established by 2015 to facilitate full-cost pricing for water services<sup>37</sup>.

The National Water Resources Study (2000-2050) suggested that the current pricing system for domestic and non-domestic water supplies in the various states be adjusted to reflect the actual costs of developing water resources. The study pointed out that water pricing policies in the country "are expected to move towards those of the developed nations". The study recommended that water "tariffs move progressively towards full-cost recovery with five-year reviews coinciding with government planning periods, e.g. 2000, 2005"<sup>38</sup>.

The same study proposes a national average incremental unit cost for distributed water. It proposes that if water companies want an annual nominal rate of return of 10 per cent, customers should be charged RM 1.00 per cubic meter. However, if water companies choose an annual nominal rate of return of 4 per cent, customers should be charged RM 0.59 per cubic meter<sup>39</sup>.

### *Retreat of the State*

Water resources are a public good and access to safe drinking water is a fundamental human right. However, privatization will transform the access to water from a human right into a profitable commodity and market, a phenomenon that would involve the transformation of the common good into private property. In this scenario, the role of the state is transformed from one of a service provider to a regulator and risk absorber.

In embracing privatization, the Malaysian state abandons its social contract with its people – an arrangement that ensured that essential services or utilities were provided in an affordable, accessible and equitable manner to most Malaysians. It provided an enabling environment for social development, including fulfilling fundamental human needs for water, electricity and healthcare. It was the state's development commitment that ensured that the country enjoyed national water supply coverage of 92.7 per cent, an enviable achievement, one that is comparable to First World nations<sup>40</sup>. With the state embracing privatization, the provisioning of basic services will be dictated by the vagaries of the market and profit motive. The provisioning of essential services through the market guarantees that access to water will be premised on affordability and not on need, no longer perceived as a human or constitutional right nor as a developmental goal.

The retreat of the state ensures corporate control in the management and distribution of essential services, including water. The provisioning of water services is the last of the essential services that will come under corporate rule in the country. These corporations will influence and control decision making in order to promote their interests. More importantly, these corporations operate outside the human rights and democratic framework, which applies only to an elected state. Neither are corporations answerable to an electorate.

The retreat of the state means ceding political power in the management of the country to corporate control. It means that market



forces and the profit motive subordinates human and society's fundamental needs and rights. In addition, it means that the corporate sector controls people's access to water, their livelihoods and their right to life. Furthermore, it means that citizens cannot claim entitlements to water as a right from the government.

A critical question for Malaysians underlying the privatization exercise is: Who is ultimately responsible for ensuring that all Malaysians have access to affordable and equitable distribution of water? Would it be the market or the state, corporations or governments?<sup>41</sup> Clearly, in allowing water supply to be organized on the basis of profits and private management, the state makes a conscious decision that it has no obligations to its citizens to provide affordable and equitable access to water.

This proposition collectively violates the social contract, the constitution of the country and fundamental human rights of all Malaysians. It means that the state has no obligations to its people vis-à-vis water and other essential services. Conversely, the people cannot exercise their claim for water entitlement vis-à-vis the state. In a privatized environment, the people cannot claim entitlements from the markets either. This is because markets have no political obligation to people.

### *Access to water as human right*

Water is such a basic requirement for human life, survival and reproduction that society has to defend the use of the water resources in the public interest. The people must hold the government accountable vis-à-vis its obligation to respect, promote and fulfil the fundamental right to water. The water supply system therefore, should not be subject to private management and full-cost recovery. The access to water must be identified primarily as a public good and a human right. The state has an important obligation in ensuring that the country's water resources remain in the hands of the public sector.

The access to water as a human right is stipulated in the various United Nations covenants, agreements and international law. Water is both an *implicit* and *explicit* right. The Chairman of the European Council of Environmental Law, Alexandre Kiss, suggested that the right to water is one of the first substantive environmental rights recognized internationally.

As an explicit human right, water is enshrined in the Convention of the Rights of the Child (1989)<sup>42</sup> and implicitly, as a precondition in the "component elements of an adequate standard of living" in the Universal

Declaration of Human Rights (1948)<sup>43</sup>. Article 25 of the Declaration says that “Everyone has the right to a standard of living adequate for the health and well being of himself and of his family, including food, clothing...housing (UN General Assembly, 1948). Clearly, Article 25 cannot be satisfied without access to water as an implicit right and a component element. This is because an adequate quantity of water of sufficient quality is required to maintain human health and well-being in order to satisfy Article 25.

The International Covenant on Economic, Social and Cultural Rights (ICESR) 1966 supports the notion that the right to water is an implicit right. Central to the ECOSOC rights is that governments have a legal obligation to ensure that their citizens enjoy the right to water.

In November 2002, the United Nations Committee on Economic, Social and Cultural Rights in its General Comment No. 15 reaffirmed that the right to water was a human right. International human rights laws require that governments take immediate steps to realize the right to water. Thus, governments have a responsibility to respect, fulfil and protect this right.

In fact, the General Comment unambiguously stipulates that access to water is a fundamental human right, a right that is a prerequisite to the realization of all other human rights<sup>44</sup>. The General Comment makes access to water a legally binding responsibility for which the state is held accountable. Clearly, from a human rights perspective, water as an essential public good takes priority over water as an economic commodity.

### ***Water barons and the privatization landscape***

The water market is poised to grow larger with the impending take-over of state water resources by the federal government. With demand for water, growing at eight percent a year for the past two decades, the need to replace old pipes, build new dams and reservoirs, inter-state water transfers, installation of a universal metering system and reactivation of various postponed water projects at the state level due to financial constraints has created a huge investment and business opportunity<sup>45</sup>. With more than a third of water production and more than three-quarters of distribution still in public hands, there is plenty of scope for investments and contracts for the private sector<sup>46</sup>.

At present, about 12 companies are involved in the privatization exercise of the various aspects of the water supply network in Peninsular

Malaysia. Four of these companies manage state water supply networks – three of which are privatized and the fourth corporatized. The states of Kelantan, Johor and Penang have privatized the entire water supply system. Air Kelantan Sdn Bhd and SAJ Holdings,<sup>47</sup> a wholly owned subsidiary of Ranhill Utilities, manage the water supply networks for the states of Kelantan and Johor with a concession period of 25 and 30 years respectively. In the state of Penang, Perbadanan Bekalan Air Pulau Pinang Bhd (PUB) manages the water network and the state government owns 75 percent majority shares, although the PUB is a privatized entity. Syarikat Air Terengganu Sdn Bhd, a corporatized entity owned by the state government, manages the water supply in the state. (In East Malaysia, four companies – three in Sabah and one in Sarawak – are involved in the privatization process.)

The remaining eight companies operate and compete for business throughout the country. They are involved in BOT of production facilities including operation, maintenance and rehabilitation of treatment plants including distribution and billing. The Taliworks Consortium operates in the states of Kedah, Selangor and Negeri Sembilan, and is involved in privatization of existing treatment plants to produce water. This requires operation, maintenance and rehabilitation of treatment plants. The company is involved in billing as well. The company is preparing itself to become a major water concessionaire.

Taliworks Consortium's business and investment strategies best describe a typical national-based water corporation. The company went into a 40-60 joint venture agreement with the Kedah state government's YIKED Holdings Sdn Bhd to form the Air Kedah Sdn Bhd<sup>48</sup>. The newly formed joint venture is undertaking an integrated project to process raw water for its own and for sale to neighbouring states. Syarikat Air Kedah was awarded the contract to plan, implement and manage the Northern Kedah Integrated Water Supply scheme for the state. The water supply scheme is to be developed in three stages, with the initial stage having the capacity to supply about 85 MLD, and gradually increasing to 100 MLD.

Taliworks will be submitting a proposal for a contract worth RM1 billion to manage the water treatment plant under the Pahang-Selangor inter-state raw water transfer project, which is expected to come on-stream between 2005 and 2008<sup>49</sup>.

Taliworks' Sungai Harmony Sdn Bhd annual revenue is about RM 90 million for managing and maintaining water treatment plants and

related facilities under the Sungai Selangor Phase 1 (SSP1) project. The contract runs until January 2030. Taliworks' other operations include a contract to manage, operate and maintain water supply facilities in Langkawi as well as the Sungai Baru water treatment plant in Perlis through wholly-owned Taliworks (Langkawi) Sdn Bhd. Taliworks (Langkawi), whose contract runs till October 2020, brings in an annual revenue of RM12 million. The company's 45 percent-owned CGE Utilities generates between RM30 million and RM40 million a year from its contract that ends in December 2020<sup>50</sup>.

Water corporations' investments are strategically located in the most profitable component of the water supply chain, i.e., water treatment. It appears that none of the water corporations' are involved in the distribution of water. Water companies churn out 74 percent (7,589,079 cubic meters per day) of all water treated in the country. State agencies are responsible for the remaining 26 percent (2,691,697 cubic meters)<sup>51</sup>. In this arrangement, the private companies make large profits while the government loses money.

In the state of Selangor, three water concession companies, namely Puncak Niaga Sdn Bhd<sup>52</sup>, Syarikat Pengeluar Air Sungai Selangor Sdn Bhd and Konsortium ABASS Sdn Bhd, are responsible for water production. The concession period for these companies is between 25 and 30 years. The distribution of water in the state is the responsibility of the corporatized Selangor Water Management Company (PUAS). Presently, PUAS suffers a huge financial deficit in excess of RM 400 million a years as a result of the high cost of purchasing water from these water producers<sup>53</sup>. In the last few years, PUAS has accumulated a debt amounting to RM 2.2 billion payable to three water producers in the state.

Three water corporations serve 22 percent of the population in three states in the country. Three corporatized agencies serve 30 percent of the population in two states and in LAKU in the state of Sarawak. Nine government-run agencies serve 48 percent of the population in nine states.

Construction-based conglomerates are becoming big players in the water industry. Companies such as Ranhill, Gamuda<sup>54</sup>, Malaysia Mining Corporation and Roadbuilder (Malaysia) Bhd are actively involved in the water business. At present, Ranhill owns SAJH, the 30 year concessionaire in the state of Johor; Gamuda owns 30 per cent stake in Syarikat Pengeluar Air Sungai Selangor Sdn Bhd (SPLASH), the concessionaire

of Sungai Selangor Water Supply Scheme Phase 3; MMC owns 2 water concessionaires in the state of Johor, namely, Equiventures Sdn Bhd and Southern Water Corp. Roadbuilder (Malaysia) is the main contractor for the state of Melaka's second dam in Jus, near Selandar.

Through their investment arm, various state governments are players in the water privatization activities. Kumpulan Perangsang Selangor Berhad (KPS), the subsidiary of the Selangor state government's investment arm, Kumpulan Darul Ehsan Bhd, is emerging as a key player in the water sector. Presently, KPS has 30 percent beneficial interests each in Syarikat Pengeluaran Bekalan Air Selangor Sdn Bhd, (SPLASH), the concessionaire for the Sungai Selangor Water Supply Scheme Phase 3 and Konsortium ABASS Sdn Bhd, which holds the concession for the Sungai Semenyih Water Supply Scheme. Both projects have a 30-year concession period. Kumpulan Perangsang Selangor also owns 60 per cent of Hydrovest.

KPS holds 20 percent of public-listed Taliworks Corporation Berhad, a company specialising in the management, operation and maintenance of water treatment plants and distribution systems. KPS has been involved in the construction of several major water supply projects in Selangor since 1990. It was responsible for the construction of the Sungai Selangor Water Supply Scheme Phase 1 Stage 1 and Phase 1 Stage II (Streams A and E). The Company had also participated in the management, operation and maintenance of the Sungai Selangor Water Treatment Works Phase 1 (Streams A and B)<sup>55</sup>.

KPS is in the final stages of securing the construction, operations and maintenance of a new water supply scheme, known as Langat 2 Scheme. This is the first phase, valued at RM2.5 billion, of a two-phase RM5 billion project, involving inter-state raw water transfer between Southern Pahang and Selangor, producing and treating 1.09 billion litres of water per day.

KDEB holds a 30-percent stake in Syarikat Pengeluaran Bekalan Air Selangor (SYABAS), which will undertake the privatization of water supply in Selangor, Kuala Lumpur and Putrajaya. Puncak Niaga Holdings Bhd. holds the other 70 percent.

The state of Sarawak is corporatising parts of its Waterworks Department, namely LAKU, involving the districts of Miri, Bintulu and Limbang. The states of Melaka and Negeri Sembilan are expected to

corporatise their water utility soon. Puncak Niaga is now negotiating with the Negeri Sembilan Water Supply Department (JBANS). The terms and conditions of the concession agreement for the privatization project in Negeri Sembilan are still on going. States such as Perak, Sabah, Kedah and Negeri Sembilan have privatized various aspects of the water services, such as the operation and maintenance of water treatment plants. The state of Pahang has engaged a consultant company to conduct a study on the privatization of the state's water supply department<sup>56</sup>.

### **Water Consultants: Can They Be Trusted?**

The Ministry of Energy, Water and Communications (KTAK) appointed KPMG as their consultants in managing water resources in the country. Many of the water privatization consultants in Malaysia also playing a key role in the ongoing efforts to privatize water in the country. Some of these water consultants are PriceWaterhouse Coopers, KPMG and Halcrow Group. Other water consultants operating in the country named in the report include Deloitte Touche Tohmatsu, and Ernst and Young. All these companies have financial motivation and ideological interest in pushing for privatization.

KTAK is also considering appointing the Halcrow group as review consultants to independently audit the recommendations of SMHB – Nippon Koei Co. Ltd. on the RM3.8 billion Pahang – Selangor

In January 2005, the Perak state government indicated that they are privatising the Perak Water Board based on a PriceWaterhouse Coopers (PwC) report.

In February 2005, the UK based World Development Movement (WDM) issued a report entitled *Dirty Aid, Dirty water: The UK government's push to privatize water and Sanitation in Poor Countries*, revealed how the department for International Development (DFID) spent millions of pounds funding water privatization consultants, often UK companies to "advise" developing country government to privatize water management<sup>57</sup>.

### ***Why water should not be privatized?***

On December 15, 2004, the Federal government and the state government of Selangor signed a 30-year concession agreement with Syabas to supply water in Selangor, Kuala Lumpur and Putrajaya. As part of the privatization arrangement, the Federal government offered a RM2.9 billion payout to Syabas for purposes of undertaking the water privatization exercise. The breakdown includes:

- An amount of RM1.34 billion to be partially used to settle PUAS' debts to three water treatment companies – Puncak Niaga, ABBAS and SPLASH;
- An amount of RM250 million government grant to reduce non-revenue water;
- An amount of RM250 million given to Syabas in the form of soft loan;
- An amount of RM 1.07 billion to be given to Syabas as loan for its capital expenditure requirements.

Interesting to note that the state rather provide grants, loans and guarantees running into billion ringgits to the private sector but does not extend similar financial support to the public sector. In fact, an amount of RM 250 million was given to Syabas as a grant to reduce NRW as part of the privatization agreement. Such preferential treatment was not accorded to the public owned and corporatized utility PUAS, which at that time was in the midst of securing loans to support the utility. If PUAS were given the same freedom of operation and finances that is being given to Syabas under the concession agreement, PUAS could have performed better.

The concession agreement stipulates that as of Jan 1, 2006, Syabas (one year into the concession) shall be given a 15 percent increase in tariffs. This will give Syabas' parent company Puncak Niaga Holdings Bhd an increase in pre tax profit of an additional RM 100 million for the year ending December 31 2006. In the event that the state or Federal government does not approve the stipulated tariff hike, the concession agreement ensures that the state government compensates – the difference between the stipulated amount and the approved hike – to Puncak Niaga Berhad<sup>58</sup>. Either way, the water concessionaire will secure the RM 100 million in revenue.

The water concessionaire is required to meet stipulated key performance indicators in order to secure a tariff increase. This inter-alia includes reducing non-revenue water (NRW).

The conflicting numbers floated on NRW reduction raised serious concerns on the actual reduction of NRW and posed business and corporate credibility question of the company. It might be the case that there were other reasons for the floating of numbers, including pushing-up stock value of the parent company. Specifically, on May 11 2005, Rating Agency of Malaysia (RAM) indicated that, "since it commenced operations, Syabas has surpassed its performance indicators; we understand from industry sources that it has reduced the non-revenue water (NRW) level in Selangor from 44 percent in 2004 to 38 percent. Given these encouraging statistics, RAM is of the opinion that Syabas would likely be eligible for the next scheduled tariff increase in January 2006. We highlight that Syabas' ability to obtain this tariff hike, as per its concession agreement, is necessary towards ensuring the financial viability of its business model". Is it possible to decrease 6 percent NRW in four months?

However, the water company's Executive Chairman on November 23rd, 2005 in a report in the New Straits Times Business section indicated that Syabas had successfully reduced NRW to 38.34 percent from 42.78 percent on January 1, 2005, a reduction of 4.44 per cent in NRW.

Clearly, there is a discrepancy in the accounting of NRW. How are we to know whether Syabas has reduced NRW by 6 percent (RAM) or 4 percent (Executive Chairman, Syabas)? Which of these figures on NRW are accurate? Clearly, RAM's information is misleading, given that the Executive Chairman of Syabas has indicated that NRW reduction is only 4.4 per cent in November 2005. Surely, RAM's information must have come from Syabas. Are we to assume that RAM and Syabas were in cohorts to increase the stock value of Syabas in May 2005?

The NRW accounting becomes murkier. On August 1<sup>st</sup> 2005, PABW Sdn Bhd and Premier Ayer Sdn Bhd obtained a court injunction from the Kuala Lumpur High Court to stop Syabas and two other defendants from violating PABW and Premier Ayer's rights in the contract on Scope of Works For Selangor's NRW, Phase 2. The injunction order prohibits Syabas from conducting any NRW reduction program until April 14, 2009. Furthermore, the injunction prohibits Syabas from engaging or awarding contracts to others till the issue is settled. Given, the court injunction and the floating of conflicting numbers, the NRW numbers put out by Syabas is suspect.



▪ *Assuming authority beyond its mandate*

The concessionaire was also overstepping its scope and mandate. A New Sunday Times September 18, 2005 Special Report on Selangor, FT Water Supply and Distribution entitled: 'Plumbing Confusion: No Licence to License' states that the water company is apparently issuing plumbing licenses to local plumbers for a fee of RM 200 and renewal fees of RM 100. The report says, according to Selangor Water Regulatory Department (JKSAS) "Syabas does not have the authority to register, issue and renew plumber license". In fact, JKSAS was quite forceful, "Syabas holds the license to distribute and supply water, not to issue license to plumbers"<sup>59</sup>

▪ *Company expenditures and tariff calculation?*

The Malaysian Business<sup>60</sup> reported that the highest paid director of Puncak Niaga earns between RM1.2 to RM1.25 million annually. Puncak Niaga has an eight-man board of directors. Are we to assume that water users of Selangor, Putrajaya and Kuala Lumpur will absorb the director's huge fees as part of tariff increase? Furthermore, will Puncak Niaga's and Syabas extensive public relations exercise costed into the water tariff increase?

▪ *'Water quality not under us'*

Recently, after a massive flood contaminated rivers, which were used to source raw water for the treatment plants, Syabas, the company responsible for treating water from Sungai Selangor distanced itself from the poor quality of piped water last week. Puncak Niaga Sdn Bhd executive chair Tan Sri Rozali Ismail said the quality of water did not fall under the company's jurisdiction. He was quoted that, "By right, the State should take care of the problem, for it is caused by irresponsible people polluting the river," Rozali said, "We treat raw water. If the river is polluted, how would you expect us to un-pollute it?"

This clearly demonstrates that privatization does not deliver on its promise of efficiency and the provisioning of affordable and clean portable water. In fact, it demonstrates abuse, inefficiency, unaccountability and an attempt to secure larger profits. Furthermore, it appears that the state is unable to or incapable to discipline the water concessionaire.

### ***Public-owned utility***

Public-public partnership based on best practice: An alternative strategy in water management

There are alternative options in organizing and managing the water supply system in the country. Specifically, the government should consider a Public-Public Partnership (PUP) based on best practice as an effective approach in managing water resources in the country. Perbadanan Bekalan Air Pulau Pinang (PBA)'s experience in water management could be a basis to organize PUP arrangements in the country. PUP is an arrangement that ensures that water management continues to be under the state and public control<sup>61</sup> At the World Summit on Sustainable Development (WSSD) five public water services provider organizations signed a declaration committing themselves to a public-public collaboration, which seeks to strengthen the role of the international public sector. South Africa's water boards Rand Water and Umgeni Water are joining hands with Brazil's public utility DMAE in Porto Alegre, the public Water & Sanitation Department of Recife Municipality and ASSEMAE, which is the Brazilian Association of Public Municipal Water and Sanitation Service Organizations. The partners will develop programmes of action for the delivery of sustainable water services to their respective communities, especially the poor. They will also explore joint international assistance programmes to support other public water service providers.

PUP can ensure

- a) efficiency in the provisioning of water services, including providing affordable and accessible water for all;
- b) quality of water;
- c) accountability of the water corporation to the public; and
- d) environmental protection.

The PUP approach ensures that companies' profits are reinvested back into the local water system and not appropriated by corporations. Furthermore, PUP can be used to source expertise, upgrade technical knowledge and capacity, and share information.

PBA's experience in water management makes a strong case against handing over the water management to private hands.<sup>62</sup> In fact, it offers a solid example for other state water providers to learn from. The PBA's experience demonstrates that it is possible for a water utility controlled by the state to provide universal access at the lowest rate in the country

and yet be cost efficient and highly profitable. The experience of PBA could be used to promote a public-public partnership – not only in the country but also in the region – based on best practice.

The PBA model reconciles social responsibility with economic efficiency. The water utilities stealth performance demolishes the widely held notion that a state-controlled water utility is inefficient and loss-bearing. The PBA is a profitable and efficient water provider without imposing full-cost recovery, a phenomenon that turns the privatization logic upside down. The PBA experience tells us that state-controlled water utilities can be viable, efficient and profitable, provided they are politically accountable and transparent, embrace social responsibility, including a strong commitment to public service.

The critical challenge coming out of the PBA experience for Malaysia's water privatization efforts is that the government is not considering existing workable alternative options practiced in the country. The PBA experience provides the basis in which to promote public-public partnerships based on the principle of best practice.

In this view, other state utility providers can benefit from the expertise and best practices of the PBA. Various state water providers have approached PBA for assistance in the management of respective water supply networks. This approach can be replicated throughout the nation where expertise can be transferred from the utility with the best practice to others. The PUP strategy should form the basis to providing an alternative to privatization.

This is not to argue that there are no problems with the PBA. There are potential long-run problems. The organization needs to consider conservation in the state seriously, given the increasing demand for water in the state, and that 80 percent of its raw water comes from outside the state. It needs to protect and gazette its catchment areas. The state's catchment areas are being eyed by business for purposes of commercial farming and other business ventures.

A serious problem that the water utility provider will have to consider is in relation to its privatized status, although owned and controlled by the state government. Various stakeholders have suggested that the commitment to keep the water provider 'public although it is private' might not be assured if the state government falls to other political parties<sup>63</sup>. A privatized utility is vulnerable to foreign take-overs through

the General Agreement on Trade in Services, an international trade agreement that is designed to control and regulate trade in services, including water.

Corruption and abuse of power is not systemic or prevalent in the organization, although there have been suspicions of corruption involving engineers in 1996.

At present, the state of Penang enjoys one of the lowest water rates in the country<sup>64</sup> and the world. A 1999 comparative study of water charges in 65 cities and towns in 38 countries in Asia, Europe, Africa and the United States, indicated that the state of Penang recorded the lowest water rates<sup>65</sup>. The PBA recorded the highest profits among all the water providers in the country. In the last few years, the company recorded profits between RM 40-50 million<sup>66</sup>. In addition, water is accessible 24 hours a day and reaches about 99 percent of the population in the state.<sup>67</sup> The NRW is the lowest in the country at 18 percent<sup>68</sup>, a target attained one year ahead of schedule (2005). In order to further minimize NRW, the PBA plans to implement a comprehensive program involving improvement monitoring and rehabilitation. This involves speedy pipe repairs, material control, district metering, meter accuracy, and rapid replacement operations. They expect to reduce NRW to 15 percent by 2010.

Its employee-to-connection ratio is about 1:373. The PBA has attained a 99 percent billing and collection efficiency, another national high. The company's strong operating profit margin of 50 percent owes a lot to its low NRW and good revenue collection rate of 99 percent.

Furthermore, Penang is the only state in the country, which provides an interest free loan of RM 1,000 to poor communities for purposes of connection. The PBA is the only water provider in the country that can boast a cash reserve or its equivalent of RM 223 million. The water utility is planning to diversify by investing RM 50 million in a wastewater recycling plant. Therefore, it would be prudent for other water providers to learn from PBA's experience – in terms of operation, management, monitoring, distribution, billing, reduction of NRW, commitment to public service – and still keep the management and control of water supply network in the hands of the state and public control.

### ***Ownership***

The ownership and the controlling stakes of the PBA are in the hands of the state government although the company is a privatized entity. The

state government – directly and indirectly – controls 75 percent equity of the company. The direct control of the company is exercised through a 55 per cent equity stake through the State Secretary Inc. The state holds an indirect equity of 20 percent through state-linked companies. The Penang Development Corporation has a 10 percent stake in the PBA. The Yayasan Bumiputera Pulau Pinang Berhad and other companies hold another 10 per cent of the shares.

The Employees Provident Fund Board owns 7.29 percent of all shares in the company. Its shareholding is the third largest in the company. At the time of privatization, a five percent stake was given to PBA workers and staff<sup>69</sup>. The remaining 20 percent shares were equally distributed to PBA consumers in Penang and the public. The Chairman of the PBA is the Chief Minister of Penang.

Although privatized, the PBA is controlled by the state government and theoretically responsive to needs of the people. The state can still exercise political control of the PBA in the interests of the public. The state's social and political commitment to the people is not compromised. The privatized entity PBA will not be able to exploit its monopoly position in order to raise tariffs to make enormous profits. The state has to be politically sensitive to the demands of the people. Put differently, the people of Penang can exercise their entitlement or right to water with the state and the state has an obligation to meet the demands of its people.

However, there will be no 'entitlement-obligation' relationship between the people and the state if the state authorities decide to sell its stake to private capital. People will not be able to claim entitlements vis-à-vis the markets and the markets have no obligation to the people. Interviews with the PBA workers, retirees and management staff indicate that they would have preferred that the water utility be maintained as a corporatized entity accountable to the state. There are fears that with privatization people will not only lose their rights and entitlements but PBA's social commitment to the people will be sacrificed. In fact, some argued that water is a fundamental human right and this right cannot be privatized.

It is suggested that the Penang Water Authority, a statutory body then, was corporatized primarily to circumvent the take-over bid of the water utility by a private group led by Suez, the French water multinational, Perlis Plantations, a local business conglomerate and a local prominent lawyer. The corporatization exercise allowed the PBA to be

independent of the federal government human resources policy, a welcome move by state authorities. Specifically, the PBA could sidestep the federal government's imposition and policy on hiring and employment of middle and senior management.

The unions pushed for corporatization of the public utility. An increased workload combined with staff shortages with a non-commensurate salary forced the unions to demand for corporatisation. The unions indicated for a six-year period no substantial replacement of retirees and the new employment was allowed by the state and the Public Services Department. The management staffs indicate that the corporatisation exercise period was used to inculcate a commercial motivation at the various levels of the company.

The PBA privatization strategy was a result of wanting to be consistent with the country's Malaysia Incorporated policy. In addition, it was suggested that the Economic Planning Unit of the Prime Minister's Department nudged the state government to privatize the PBA. It was felt that privatization would help the PBA to raise funds privately and not depend on the state government.

#### ***Management strategy:***

##### ***accessibility and affordability with economic efficiency***

A management system established by the British coupled with subsequent senior management committed to administrative and public service excellence wedded to a commercial outlook helped to create an efficient management of the water system in the state. Interviews indicate that since 1973, the Penang Water Authority operated autonomously and without political interference from the state, albeit the water utility had to follow federal government policies on staff recruitment and other matters.

Already in 1973, the Penang Water Authority adopted a 'commercial outlook with social obligations' strategy. This involved increasing access to water at affordable prices while ensuring high revenue efficiency. It ensured accessibility of water at affordable rates, yet ensured that the provisioning of water is a cost-effective and profitable venture. The statutory body adopted appropriate technology either to enhance water accessibility or for the purposes of revenue efficiency.

A commercial outlook involves the organization being budget conscious, adopting a commercial accounting system, internal and external audit, a customer friendly service, accurate recording of payments, billing and

collection system. In addition, it involved developing a reliable and accurate integrated customer and engineering data system. Such a system will allow for correct recording or identifying burst pipes in different geographical locations. Furthermore, it entailed putting in place leak detection and rehabilitation system. Essentially, a commercial outlook involves cutting costs and enhancing revenue efficiency.

Currently, the state of Penang demonstrates a remarkable achievement of a 99 percent universal access to drinking water at the lowest prices in the country with a 98 percent revenue efficiency. It is important to note that the efficiency requirements were met with no substantial tariff increase, and with a subsidy and cross subsidy in place<sup>70</sup>. This was because profits of the water utility were reinvested,<sup>71</sup> and new infrastructure investments are self-financed.

A strong commitment to public service influenced the management, operations and delivery of services of the organization. Interviews with workers, unions and management staff indicate that a commitment to public service excellence was inculcated at every level of the company. Working for and serving the *rakyat* was internalised by the staff and represented a key commitment of the organization. In addition, it appears that there is a real sense of commitment among the staff to a work culture that promotes excellence in public service.

The PBA's day-to-day operations and management decisions, including its policies, are autonomous of political interference. Thus, the water utility is able to focus on its core responsibility and commitment of balancing profitability with public interest. In this environment, the senior management could formulate plans and decisions without upsetting politicians or fearing employment transfers or demotions, a reality that cannot be said for most of Malaysia's state water providers. Interviews with retired senior management staff indicate that the state politicians did not interfere with day-to-day operations of the company nor influence its policymaking. It was pointed out by retired and/or long-serving PBA staff members that visionary senior management team committed to public service led PBA. In this sense, the PBA was very much a bureaucracy-led organization devoid of political encroachment.

### ***Political process and accountability***

More recently, political party rivalry coupled with a vigilant public in the state is said to be another reason that has forced the state-linked utility to be efficient, transparent and accountable. Political competition between

the various political parties, especially between the parties of the ruling government, has contributed to keeping the state's water supply system efficient, and the provider transparent and accountable. Interviews with management, workers and NGOs in the state indicate that the political rivalry, especially between the Gerakan and the Malaysian Chinese Association (MCA) in the state, has resulted in unprecedented levels of scrutiny and demands for transparency and accountability vis-à-vis the performance of the state-linked companies, such as PBA and Penang Development Corporation, the investment arm of the state.

Furthermore, political pressure from the opposition Democratic Action Party (DAP) and UMNO, a ruling coalition partner, which has been eyeing the chair of the PBA, forces the utility company's performance, efficiency, transparency and accountability levels to increase. It appears that political competition demands a higher transparency, accountability and efficiency levels, and is a phenomenon that is absent in many other state water utilities in the country.

The people of Penang exert influence over the states political elite and its prized economic entity, the Penang Development Corporation and the PBA. The citizenry express their democratic right to dissent on issues and policies, which offend them. Interviews with NGOs and trade unions indicate that the state government is highly sensitive to the demands of the people.

### ***Learning from best practice***

The PBA is in the best position to share their expertise and export its services as part of a public-public partnership based on best practice. The corporatized water distributor in Selangor, PUAS, could learn from the experience of PBA in reducing NRW. The NRW in Penang was reduced to about 18 percent. In the state of Selangor, it was estimated to be about 44 percent in 2002, resulting in financial losses running into millions of RM. PUAS is in debt to water provider Puncak Niaga by a staggering RM 2.2 billion, largely due to NRW, as they are now unable to cross-subsidize

The PBA is marketing its expertise to other water providers in the country, especially in the areas of management and operation of the water supply system. Specifically, the company is providing consultancy services in treating, collection and billing to other utility providers in the company.



### ***Tariff comparison***

The PBA offers cheaper rates compared to other privatized water providers, i.e., Syarikat Air Johor Holdings Sdn Bhd (SAJH), which is a wholly owned subsidiary of Ranhill Utilities. SAJH was granted rights to carry out water supply services in the state of Johor for 30 years beginning 2000. The PBA charges consumers 22 cent per cubic meter for 0-20 cubic meters and 42 cent for the consumption of 21-40 cubic meters. However, in the state of Johor, SAJH charges consumers 30 cent for the consumption of 0-15 cubic meters and 95 cent for the consumption of 16-30 cubic meters.

PBA charges for the first 0-40 cubic meters have not changed since 1993, even through the privatization exercise in 2001. However, in the case of SAJH, water charges increased by 40 percent on January 1, 2001, and a further increase of 30 percent in 2003<sup>72</sup>. It is interesting to note that a review of the water tariff in 2003 was made before the expiry of the three-year requirement<sup>73</sup>. In the last 13 years, water tariff has increased by 82 percent in the state of Johor. In the case of SAJH, it exploited its monopoly position to increase water tariff, shore-up its share value and thus profits. PBA, because of its 'public although private' approach does not treat water like any other revenue-generating commodity. It has reinvested its profits and maintained highly affordable rates in order to ensure universal access and equity.

The table below provides the current concession agreements in place in the water sector. Clearly, the privatization of water has been a haphazard process, with bits and pieces being privatized with proper planning.

**Figure 2: Current Privatization Agreements in the Water Sector**

No	Entity	Year
1	Air Utara Indah Sdn Bhd	Privatization Agreement dated 22 November 1990 (as amended by the supplemental agreements dated 26 November 1998 and 14 September 2000)
2	Encorp Utilities Sdn. Bhd.	Operation and Management of Facilities and Privatization Contract
3	Equiventures Sdn. Bhd.	Privatization cum Concession Agreement dated 28 June 1992

4	Indah Water Konsortium Sdn. Bhd.	Concession Agreement dated 9 December 1993
5	Innovest – Lyonnaise Sdn. Bhd.	Concession Agreement dated 5 October 189 (as amended by the supplemental agreement dated 21 February 1992)
6	Kelantan Water (Malaysia) Sdn Bhd	Concession Agreement dated 26 February 1995
7	Konsortium Abass Sdn. Bhd.	Privatization Cum Concession Agreement dated 9 December 2000 (as amended by the supplemental agreement dated 10 February 2001)
8	Metropolitan Utilities Sdn. Bhd.	Concession Agreement dated 28 March 1989 (as amended by the supplemental agreements dated 18 September 1997 and 12 August 2003)
9	Puncak Niaga (M) Sdn. Bhd.	Privatization cum Concession Agreement dated 22 September 1994
10	Puncak Niaga (M) Sdn. Bhd.	Construction Cum Operation Agreement dated 22 March 1995 (as amended by the amendment dated 6 September 1997 and 9 April 1999)
11	Southern Water Corporation Sdn. Bhd.	Concession Agreement dated 31 May 1994
12	Syarikat Air Terengganu Sdn. Bhd.	Corporatisation Agreement dated 1 July 1999 (as amended by the supplemental agreement dated 3 March 2004)
13	Syarikat Bekalan Air Selangor Sdn. Bhd	Concession Agreement dated 15 December 2004
14	Syarikat Pengeluar Air Sungai Selangor Sdn. Bhd.	Privatization Agreement dated 24 January 2000
15	Syarikat Pengeluar Air Sungai Selangor Sdn. Bhd.	Operations and Maintenance Agreement dated 24 January 2000
16	Taliworks (Langkawi) Sdn. Bhd.	Langkawi Water Supply Privatization Agreement dated 7 October 1995

Source: The Water Services Industry Bill 2005

## Endnotes

- <sup>1</sup> The Economic Planning Unit of the Prime Minister's Department entrusted the study to three companies that are involved in the water business and who are actively involved in the privatization exercise. They include Ranhill Bersekutu Sdn Bhd, SMHB Sdn Bhd and Perunding Zaaba Sdn Bhd. Please note that this study is confined to Peninsular Malaysia only.
- <sup>2</sup> 'Water Supply Achievements and Prospects (2001-2003)'. In Malaysia Water Industry Guide 2003. p. 29.
- <sup>3</sup> Fernandez, Evelyn. 'The Water Dilemma'. In The Edge.
- <sup>4</sup> Presentation by Ir. Low Chee Par at the Public Consultation: The Future of Water Management in Malaysia. 18th February 2006.
- <sup>5</sup> There was an attempt to modify the negative perception of privatization in the last couple of years. Popular and violent protests in Cochabamba, Manila, Accra and other parts of the world against price increase, forced water disconnections, poor water distribution and broken promises under privatization galvanized global opposition to water privatisation. The International Private Water Association (IPWA) in collaboration with the World Business Council for Sustainable Development (WBCSD), both lobby groups of water corporations engineered a major exercise in name change. Kathy Shandling of the IPWA notes, "We don't use the word 'privatisation', not anymore. We use 'public-private partnerships'. Privatisation is a bad word" v. Quoted in 'Anti-privatization Wave Sinks Corporate Lobby Group'. Corporate Europe Observatory – Water Justice Info Brief 5. March 2003. <http://www.corporateeurope.org>.
- <sup>6</sup> Dwyer, Graham (ADB Media Centre). 'ADB Project Boosts Water Efficiency in Malaysia'. The ADB funds were used for a) the installing new or replacing 2,648 kilometres of pipes; b) replacing 111,000 water meters; c) providing water treatment capacity of 93,480 m3 per day; d) training of 234 staff in non-revenue water control and about 100 in commercial accounting standards. Improved operational efficiency was attributable to the virtual elimination of pipe bursts and water leakage at pipe connections. The average level of non-revenue water for the seven states also fell from 54% to 44%. [http://adb.org/Documents/PCRs/MAL/in7\\_02.pdf](http://adb.org/Documents/PCRs/MAL/in7_02.pdf)
- <sup>7</sup> Tan, H. (1999) 'Challenges in Meeting National Demand for Safe Water'. In Buletin Kesihatan Masyarakat Isu Khas, 1999. Kuala Lumpur. p. 21.
- <sup>8</sup> Shahabudin, Muhammad Syed 2001. 'Water Supply Development in the New Millennium' in Malaysia Water Industry Guide 2001. Kuala Lumpur, 2001. This is a joint publication of The Malaysia Water Association and Water Supply Branch, Public Works Department Malaysia.
- <sup>9</sup> Cited in 'How Much Does Your Water Cost? Water Malaysia Issue No:4, April 2003. P.18.
- <sup>10</sup> National Water Resources Study 2000 – 2050. Peninsular Malaysia Volume 1. p. ES 1.
- <sup>11</sup> Shahabudin Muhammad Syed. 2001. 'Water Supply Development in the New Millennium' in Malaysia Water Industry Guide 2001. Kuala Lumpur. p. 20. A joint publication of the Malaysian Water Association and the Water Supply Branch, Public Works Department Malaysia.
- <sup>12</sup> Cited in Tan, H. 1999. 'Challenges in Meeting National Demand for Safe Water'. In Buletin Kesihatan Masyarakat Isu Khas, 1999. Kuala Lumpur. p. 24.
- <sup>13</sup> Ngai Weng, Chan. Impact of Privatization of Water on the Poor in Malaysia. Penang Water Watch. p. 2.
- <sup>14</sup> Ibid.
- <sup>15</sup> Ibid.
- <sup>16</sup> Ibid.
- <sup>17</sup> MNS: Go One Step Further to Conserve Ulu Muda Press Release. Posted on Friday, May 23, 2003.

- 18 Ahmad, Reme. 2003. Race Against Time: Klang Valley faces water shortage. 'We have only enough water in the Klang Valley to last until 2006,' said Datuk Keizrul Abdullah, director-general of the Irrigation and Drainage Department. The Straits Times, Singapore. 7 June 2003.
- 19 Subramaniam, V. Achieving World Class Water Utility Company Standards: The Water Supply in Selangor and Kuala Lumpur. Buletin Ingeniur Vol. 22 June-August 2004. p 13.
- 20 In the Klang Valley water, demand has outstripped water supply. Water consumption increased from 76 MLD in 1970 to 8.5 billion litres in 1998. Chin Joseph, *What Price for Water?* Asia Features.com. May 15, 2000.  
[http://www.asiafeatures.com/current\\_affairs/0004,0130,02.html](http://www.asiafeatures.com/current_affairs/0004,0130,02.html)
- 21 Ahmad, Reme. 2003.
- 22 The Selangor State authorities were repeatedly warned about the destruction of catchment areas arising from over-logging. In 1982, this concern was first raised by the e National Water Resources Study. In 1991, the State was again warned by its own Forestry Department to restrict excessive logging. In 1993, a similar concern was raised by the Drainage and Irrigation Department. In 1995, it was the Selangor Waterworks Department, which projected a severe water shortage from 1997. Chan, NW. *'The Current Water Crisis: What Went Wrong'*. In Water Watch Penang.  
<http://www.geocities.com/wwatchpg/p62.htm>.
- 23 Ahmad, Reme. 1998. "Coping with water shortage in Malaysia." *Nando Times News*.  
[http://www.nando.net/newsroom/ntn/health/051998/health\\_15\\_17051\\_body.html](http://www.nando.net/newsroom/ntn/health/051998/health_15_17051_body.html).
- 24 Tan, H. 1999 *'Challenges in Meeting National Demand for Safe Water'*. In Buletin Kesihatan Masyarakat Isu Khas, 1999. Kuala Lumpur. p 26.
- 25 National Water Resources Study 2000 – 2050. Peninsular Malaysia Volume 1. p ES 3.
- 26 Ibid. p ES 3.
- 27 cited in Chan, N. W. *'Impact of Privatisation of Water on the Poor in Malaysia'*, paper presented at the ERA Consumer Consultation on Water. March 2003. Subang Jaya. p 3.
- 28 The former Malaysian Works Minister responsible for water resources promoting the virtues of private sector participation was quoted as saying "Private participation in water supply delivery functions will result in greater efficiency". Sakaran Seelen, *'When the Taps Run Dry'*. In Malaysian Business. March 16 2003. p. 49.
- 29 The former Malaysian Works Minister Datuk Seri Samy Velu suggests that "anything that you give cheap and free has no value," You must charge people money, then they value it". Malaysia may privatize water supply, Edie weekly summaries 12/ 04 / 2002.  
<http://www.edie.net/news/Archive/5410.cfm>.
- 30 Santiago, Charles. Manufacturing Water Insecurity: The Challenge to Asian Water Security. September 2003.
- 31 The pre- paid card system is being practiced at least in 10 developing countries albeit, it has been declared illegal under the U.K. Water Act of 1998 for health reasons. Cutting off water supply or self-disconnection has led to major disease outbreaks such as dysentery, cholera and other water borne disease in the developing world.
- 32 For more information, visit the website of the Malaysian Intelligence Meter,  
<http://www.mim.net.my>.
- 33 Public- private partnership has been suggested to mean a business approach to organizing resources, which involves public ownership and private sector management of resources. Some have suggested that the public- private partnership is the precursor to the complete take-over of the service or the industry in the long run.
- 34 The Chief Minister of Selangor commenting on the privatisation of the state water supply indicated, "that the state expects privatisation of water supply to reduce the high operating costs and subsidies for consumers. The privatisation project, if carried out immediately would help to ease the state government's financial burden". *'Water Supply for Selangor, FT to be privatized'*. The Sun. November 14, 2002.
- 35 Neupane, Bhanu. 2003. *Valuing Water: UN World Water Development Report*. Paper presented at the Managing Our Water Resources: The Changing Value of Water Conference (Water and Drainage 2003). 28-30 April 2003. Kuala Lumpur. p. 1.

- <sup>36</sup> Boon How, Hong. 'Ranhill Seeks Govt Aid to Make Water Business Viable'. The Star Business Section. 30 March 2004. p 7. Press Briefing by Ranhill President and Chief Executive Tan Sri Hamdan Mohamd on Ranhill and Ranhill Utilities Bhd's participation in the *Asiawater 2004 Expo and Forum* in Kuala Lumpur.
- <sup>37</sup> Ministerial Declaration from the First World Forum in Dublin. Malaysia is a signatory to this statement.
- <sup>38</sup> National Water Resources Study (2000-2050) Peninsular Malaysia. Sector Report Volume 1, Executive Summary. P ES 14.
- <sup>39</sup> Ibid. p ES 14.
- <sup>40</sup> The national average for water access in the urban sector is 97 percent and the rural areas are 86 percent of the population. Based on Table 7.19 Percentage of Population Served in Urban and Rural Areas 2001. Malaysia Water Industry Guide 2003, p 79. This is an industry publication jointly published by the Malaysian Water Association in collaboration with Water Supply Branch, Public Works Department, Ministry of Works, Malaysia and Sewerage Services Department Ministry of Housing & Local Government Malaysia.
- <sup>41</sup> Barlow Maude, Clarke Tony. *Blue Gold: The Fight to Stop the Corporate Theft of the World's Water*. The New Press. New York. 2002. p 80.
- <sup>42</sup> Article 24 of the Convention of the Rights of the Child (CRC) requires the State to play an important role in ensuring the child has a right to enjoy the highest attainable standard of health. The State is required to "combat disease and malnutrition... through, inter alia ... the provision of adequate nutritious foods and clean drinking water".
- <sup>43</sup> United Nations General Assembly Universal Declaration of Human Rights. Resolution 217 UN Doc. A/64 1948.
- <sup>44</sup> The Right to Water (Articles 11 and 12 of the International Covenant on Economic, Social and Cultural Rights) General Comment No 15 (2002) Committee on Economic, Social and Cultural Rights. United Nations Economic and Social Council. Twenty-ninth session. p. 11-29 November 2002. Geneva.
- <sup>45</sup> 'Where will Investment Go?' Global Water Intelligence: Market Leading Analysis of Private Water Projects. Volume 5, Issue 3. 2004. p 21.
- <sup>46</sup> 'Malaysia's big moment: The pace of privatisation has moved up a gear in Malaysia. Who is best placed to take advantage of it? Ibid. p 19.
- <sup>47</sup> SAJH has been granted rights to carry out water supply services in Johor for 30 years beginning 2000. Potable water in the state of Johor is treated and supplied by forty-three treatment plants. Twenty-seven of these, with combined capacity of 325.5 million litres per day, are operated by SAJH. Johor's population and water demand are projected to grow by 3.2 percent and 5.3 percent a year, respectively, through to 2050. SAJH currently has a customer base of 722,000 of which 87 percent are domestic users and the remaining industrial users. Ranhill Utilities has submitted proposals to at least four state governments for its expansion plan including the state of Sabah. Quarterly Report on Water Industry Developments in Asia — September 2002 (9/28/2002). This information was prepared for the members of the International Private Water Association (IPWA).
- <sup>48</sup> [http://www.taliworks.com.my/corporate\\_sub.htm](http://www.taliworks.com.my/corporate_sub.htm)
- <sup>49</sup> [http://www.taliworks.com.my/corporate\\_sub.htm](http://www.taliworks.com.my/corporate_sub.htm)
- <sup>50</sup> Ibid.
- <sup>51</sup> Based on the information in Table 7.4 Share of Private-Public Responsibility for Water Supply in Malaysia 2001 (Malaysia Water Industry Guide 2003). Malaysian Water Association p 70.
- <sup>52</sup> Puncak Niaga is involved in the privatisation of 28 water treatment plants in Selangor under two concession agreements. Puncak Niaga, which accounts for some 66 percent of the water treated in Selangor, Kuala Lumpur and Putrajaya.
- <sup>53</sup> Subramaniam V. 'Managing Water Supply In Selangor And Kuala Lumpur: Achieving World Class Water Utility Company Standard'. Buletin Ingenieur Vol 22, June-August 2004. p 18.

- <sup>54</sup> Kumpulan Perangsang Selangor: [http://www.kps.com.my/business\\_infrastructure.htm](http://www.kps.com.my/business_infrastructure.htm)
- <sup>55</sup> The Chief Minister of the state, Dato' Seri Adnan indicated that the "best option was to have one concessionaire to manage [water services] the whole state". Cover Story: 8th Malaysia Plan Water Projects Water Malaysia Issue No. 3, December 2002. p 31. Water Malaysia is a quarterly publication of the Malaysian Water Association.
- <sup>56</sup> <http://www.wdm.org.uk/campaigns/aid/indepth/index.html>.
- <sup>57</sup> *Op. cit.*
- <sup>58</sup> Ali, Rozi. 'Special Report: Selangor, FT Water Supply and Distribution'. In New Sunday Times. September 18, 2005.
- <sup>59</sup> Malaysian Business. February 1st – 15th 2005. p. 16.
- <sup>60</sup> At the World Summit on Sustainable Development (WSSD) five public water services provider organizations signed a declaration committing themselves to a public-public collaboration, which seeks to strengthen the role of the international public sector. South Africa's water boards Rand Water and Umgeni Water are joining hands with Brazil's public utility DMAE in Porto Alegre, the public Water & Sanitation Department of Recife Municipality and ASSEMAE, which is the Brazilian Association of Public Municipal Water and Sanitation Service Organizations. The partners will develop programmes of action for the delivery of sustainable water services to their respective communities, especially the poor. They will also explore joint international assistance programmes to support other public water service providers. 'Public-Public Partnership: South African and Brazilian Water Utilities Join Hands'. Monday 30 September 2002. <http://www.irc.nl/content/view/full/2292>.
- <sup>61</sup> The state water authorities inherited an efficient management water supply system from the British about 200 years ago. More recently, in January 1973, the Pihak Berkuasa Air Pulau Pinang (PBA), a state statutory authority was established. The role of authority was to supply treated water within the State of Penang (both the island and the mainland). In 1999, the PBA was corporatized into Perbadanan Bekalan Air Pulau Pinang Sdn Bhd, (PBAPP) a private limited company, wholly owned by the State Government of Penang through its investment arm, State Secretary Penang. In 2000, PBAHB was incorporated as an investment holding company to carry out all business activities for PBA Group of Companies. History of Water Supply in Penang. <http://www.pba.com.my/PBAHis.html>.
- <sup>62</sup> At present, the Gerakan controls the state government. Their political rivals within the state coalition government include the Malaysian Chinese Association and UMNO. The three parties are part of the Barisan Nasional government at the national level. The three parties compete with each other to lead the state government, albeit the Gerakan has helmed the state government in the last decades.
- <sup>63</sup> Since 1993 till presently, the Penang domestic water rates for the first 20,000 litres is 22 cent per 1000 litre and between 20 000 and 40 000 litres is 42 cent per 1000 litre. The tariff rates introduced in the year 2001 maintained the same tariff structure as in 1993. Based on the 2001 tariff increase, about 75 percent of consumers in the state of Penang did not have to pay more for their water as opposed to 1993.
- <sup>64</sup> 'The comparison of annual water charges for a family living in a house consuming 200 cu m/ year' study shows that the Penang water charges is only ECU 10.13 for a household consuming 200 cu m/ year. International Water Association's International Statistics for Water Services 1999. Cited in Water Malaysia Issue No: 4. April 2003.
- <sup>65</sup> The group's net profit was RM 41, 587 million, RM 50,292 million and RM 40,631 million in 2001, 2002 and 2003 respectively. The drop in the profits between 2002 and 2003 was due to the SARS scare, and the war in Iraq, which required companies to consolidate as opposed to expand. Corporate customers contribute to about 60.7 percent of water sales revenue in the state. PBA Holdings Bhd Annual Report 2003. p 10-12.
- <sup>66</sup> The PBA maintains 100 percent supply coverage in urban areas and 99 percent in rural areas. PBA Holdings Bhd Annual Report 2002, p 14.

- <sup>67</sup> In 2002, the NRW for Penang was about 20 percent as compared to 23 percent in 2001. In 2003, the NRW dropped to 19.4 percent. The company projected that the NRW should be decreased to 18 percent by 2005. However, interviews with various individuals indicate that the company has reached its 18 percent mark in early 2004. Non-revenue water may be classified into two components: i) Distribution Losses; ii) Metering or Revenue Losses. The first involves pipe leakage and overflowing reservoirs and theft. The second definition of NRW entails under registration of meters, flawed reading of meters and poor collection efficiencies – all the above are classified as commercial losses.
- <sup>68</sup> A total of 988 employees and 157 retirees were offered a 4.9 percent share capital worth 16.55 million shares. *PBA Annual Report 2002*. p 5.
- <sup>69</sup> The cost of producing per cubic meter of water is RM0.35 cent. It is sold at RM0.22 cents for the first 20 cubic meter of water.
- <sup>70</sup> In 2002 and 2003, the PBA invested RM61.4 million and RM85 million respectively in capital expenditure for water resource development. Sourced from Annual Report 2002 and 2003.
- <sup>71</sup> The Federation of Malaysian Manufactures (FMM) has this to say about the second tariff increase in the state of Johor, "SAJH Sdn Bhd should not treat its water supply business an indiscriminate cash cow to be milked at every three-year interval. As a monopoly, SAJH Sdn Bhd must regard its water supply business a social responsibility that must be carried out in fairness and in full consideration of the impact on all consumers, including industrial and commercial consumers. SAJH Sdn Bhd should not exploit its monopoly position in order to make obscene profits at the expense of its customers." [http://johore.fmm.org.my/SharedImages/Library/pdf/F\\_723.pdf](http://johore.fmm.org.my/SharedImages/Library/pdf/F_723.pdf).
- <sup>72</sup> Under the Concession Agreement (CA), ten staggered increments of water tariff rates are allowed over the 30-year period. Malaysian Rating Corporation Berhad (MARC) Reaffirms Rating of AID On SAJ Holdings Sdn Bhd's RM680 Million Al-Bai Bithaman Ajil Islamic Debt Securities (2000/2009). <http://www.marc.com.my/MARC/main.asp> and search for SAJ Holdings.
- <sup>73</sup> 'FMM Johor Branch Position Paper on the Latest Water Tariff Increase in Johor'. Statement by the FMM on the increase of water tariff in the State of Johor. The statement quoted the State Executive Councillor Y.B. Adam Abdul Hamid on May 29, 2003 in The New Straits Times, "SAJH could raise the water tariff by not more than 30% every three years." [http://johore.fmm.org.my/SharedImages/Library/pdf/F\\_723.pdf](http://johore.fmm.org.my/SharedImages/Library/pdf/F_723.pdf).





# **Knowledge, culture and livelihoods: Environmental security in globalized economy**

**Vinod RAINA and Taran KHAN**

## **Introduction**

Like a rampaging tsunami, global capital harnesses the bubble energy of the money markets, corporate-military might of the powerful nations and manufactured aspirations for a 'better life' of billions of people around the world to bring to knees weak governments in order to commodify, monopolise and trade even those aspects of life that are considered sacred and belonging to the public domain, like water, air, forests and knowledge. The upheavals in the economic, social, cultural and spiritual lives of people, shaken as if by a massive earthquake (which is the very cause for a tsunami) is wrecking local production systems, social institutions, and cultural and belief systems with a devastation that is difficult to describe. With the dazzling but dubious promise to provide economic security to larger populations through higher growth rates, global economy requires natural resources for sustained production at rates unprecedented in human history – the primary cause for the accompanying environmental insecurity worldwide.

China would stand out as an example and metaphor that would describe historically the transformation of the concept of security. As a

'socialist' state that embraced the capitalist path of neo-liberal economy in an intriguing, to some infuriating, manner, evident from its furious and desperate lobby to enter the WTO, it stands out as a country of maddening contrasts. The environmental price of its economic frenzy, filtering out in spite of controls on such information, seems to be very heavy. It is evident from the consequences of a single project – the Three Gorges Dam – where a million people were uprooted and the extent of environmental damage. As well, the cumulative effect of thousands of township-level manufacturing units using cheap labour of rural migrants, living in virtual bondage and without much rights, in order to provide competitively cheaper goods for the world market. As if the existing devastation was not enough, the state leadership now talks with glee about four gigantic projects that will transform the productive capacity of the mostly barren western areas to match that of the East and South. These include the transfer of gas from West to the East, a massive road to Tibet and so on. Each project is on the scale of the building of the Great Wall but with enormous impacts on land, water and biomass systems. The Great Wall in fact provides a good historical example to examine how the notion of security ought to be reviewed in present times.

Between the fifth and third centuries B. C., a series of walls were built in Northern China by several warring kingdoms. The goal was to establish and protect their separate sovereignties and to ensure their security against nomadic invaders. Despite these walls, in 221 B.C., the armies of Qin Shi Huang were able to conquer the other six kingdoms making Qin the first emperor of a united China. To consolidate his power and assert imperial sovereignty, Qin ordered that those portions of the walls dividing the kingdoms be demolished, and those running along the northern frontier be connected and extended the new 'Great Wall' of more than 6000 kilometres long. It is believed that more than 300,000 men were made to work for the ten-year project, (as mostly women are now working for export production at cheap rates), and forced to work under great hardship. Many died in the process.

Qin's ultimate purpose was immortality through a dynastic reign that would continue in perpetuity. But his new dynasty was short-lived. Only fifteen years later, it was replaced by the Han dynasty. Over the centuries, the wall fell into disrepair; a victim of the forces of nature. A number of rulers ordered it reconstructed or extended, but inevitably, nature reclaimed it. Today, although its remaining portions are maintained as a legacy of human achievement (it is one of the few human-made structures

visible from the space), the Great Wall has no real significance other than as a symbol for the security and sovereignty of China. In fact, it is a testimony to the long-term failure and folly of human quest for territorial security.

The wall is dwarfed by the mountain reaches on which it stands – like a thin, nervous line. Life and power lie in the mountains, alive with a myriad of plant and animal species. Microorganisms turn stone to soil; insects, rodents and goats traverse the wall's ruins; nibbling plants grow through the cracks; oblivious to the grand design of humans. Trees on the slopes provide wood and fuel for homes; their roots hold soil and water against erosion and drought. Rain and melting snow flow in rivulets down the slopes then converge in gushing rivers on their course toward lowland rice paddies that feed over a billion people. China's security, as also of its billion plus neighbour India, and every other country, now and in the future, depends ultimately on the integral functioning of these dynamic and interactive earth processes – their ecological systems.

True, it also depends on the economic health. Thus, the wall is overrun each year by thousands of foreign tourists bringing foreign currency. Their presence is tolerated, even sought, because China's leadership has set the country on a path of neo-liberal economy with the assumption that it will be a stronger foundation for security in an era of global economic competition than sovereign walls. The Great Wall's strategic benefit for China today is not that it keeps people out but that it brings them in.

### *Security*

Today, there is no walling out the rest of the world. In an age of global economic and ecological interdependencies, great walls are faulty metaphors for conceptualising faulty strategies for security. We have to re-examine the very notion of security.

Security is commonly defined as 'freedom from danger; safety.' Within the framework of the prevailing state-centric system, national security is thought of in military terms – the capacity of one state to thwart armed invasion by another. With the coming in of the WTO, we also have a new notion of security. It has come to mean the capacity to compete economically in the global marketplace for access to markets and scarce resources, and for a favourable balance of trade and payments. Ecological security is seldom included, much less a priority in a matrix of national security based on global markets and military pacts. This is quite

irrational since what is naturally global is ecology; whereas the economic globalisation and military methods are clearly examples of human design and construction. Since air, land and water form a continuum; the global biosphere and global cooperation to preserve it would seem to be a logical necessity to thwart the danger to future life.

The real 'present danger' has little to do with superpower polarities on an East/West axis, somewhat on the rich/poor polarities on a North/South axis. However, it seems to have more to do with polarities between human activities and the life-sustaining capacities of the earth – polarities that threaten the ecological security of East, West, North, and South alike and in many ways incorporate the rich/poor polarity. We are at a point in human history and in the planet's development when it has become critical to reconsider security priorities in light of new threats to life emanating from human assaults on earth, in particular, from the life-threatening asymmetry between the globalised economic systems and the desperately needed global approaches to restore and sustain ecology and environment. The relentless onslaught of the global economic system to create and nurture human greeds, as opposed to needs, in order to expand and sustain a global market for unsatiable consumption is shaping environmental approaches that must subjugate themselves to the overarching economic concerns, rather than challenge them. Thus, the Earth Summit Agenda of Rio must not question trade; the GATT/WTO mechanism does not recognise multilateral environmental agreements (MEA's). Consistent in its stand against global environmental security, the US is translating the 'tough' and arrogant statement of its then President George Bush that the 'US is not going to trade the lifestyle of its citizens' made before the Rio summit, by refusing to accept the Kyoto protocol on greenhouse gases during the son's regime, even though it consumes the highest per capita energy in the world. What will happen if every Indian and Chinese citizen reaches a lifestyle that requires as much per capita energy? The result would be an increasing number of principal threats to the very survival of the earth.

For early human societies, these threats constituted of powerful forces of nature – volcanoes, earthquakes, hurricanes, droughts, and floods. Over time, humans learned to protect – for those who could afford, precautions or modifications in habits and habitats, and new inventions. Today a new class of risks is emerging. The danger arises not from what nature can do to human but the human activities on nature; and the consequent effects on human. The problem has also arisen due

to the inequality in the 'solutions' to old problems. In order to protect the advantaged populations from these old threats, the larger disadvantaged populations continue to be endangered by these old problems along with the new ones. They are therefore doubly disadvantaged.

Human assaults on the planet today are of a new kind and scale. Global symptoms are familiar by now i.e. depletion of the stratospheric ozone layer; global warming due to the build up energy emissions that could be the cause of major climate changes; acid rain, increasing levels of chemical, radioactive and other toxic pollutants in water, air and soils contributing to the increase in cancers and other environmentally-induced diseases, health problems and genetic damage; the loss of topsoil and desertification contributing to hunger and starvation of millions; chemical and biological as well as nuclear weapons; and massive depletion of rainforests with the loss of vital watersheds and the depletion of earth's oxygen supply further compounding the carbon-dioxide threat. The life of the earth is also threatened by the loss of millions of plant and animal species due to over-industrialisation, deforestation, pollution, selective breeding, monocropping and genetic engineering leading to a variety of genetically modified organisms (GMOs).

Unlike threats in the social sphere, these cannot be defined in conventional ideological terms. Rather, these are related to a new and growing ideology called the 'global market', which is nothing but a more virulent form of human greed for profit and power. Once threats to earth's ecosystems accelerate beyond a certain point, they may take a life of their own; accelerating beyond human control toward an uncertain conclusion, possibly including major changes in the earth's life-sustaining capacities. Whereas the earth may adapt itself and take care of itself in some fashion, humans may not be able to withstand or adapt fast enough to these changes. In this event, the cause of human death will not be the forces of nature but a failure of human vision. Ultimately therefore, the world is a total, living system, and human security a function of, and inseparable from, the life of the earth.

### ***Knowledge and production***

The ability of the pre-historic nomadic tribes to gradually transform from hunting-gathering to settled living heralded the first major revolution on earth - that of agriculture or the ability of humans to grow food in one place. The use of metals, iron and copper brought humankind out of the Stone Age. Through a series of such discoveries and inventions, mostly

related to transforming the resources of the earth to productive ends, human civilisations evolved into more complex and creative forms. Empirically-generated knowledge about nature, natural resources and processes of production formed the core of the entire knowledge system of humanity for thousands of years till the advent of modern science in the seventeenth century. In tandem with the growing empirical knowledge, human civilisations also felt the need to devise explanatory systems that incorporate questions regarding values, destiny, duties, morals, and ethics in a variety of belief systems, which vary from the still prevalent primitive animistic belief systems of the indigenous people to the sophisticated set of religions found all over the world. Very often, these belief systems rather than being disjoint and separate from the empirical knowledge about nature and production are intrinsically linked with them providing a complex of holistic knowledge systems. It differs greatly from the modern form where knowledge based on reason and logic is systematically separate from that of beliefs.

Modern knowledge, leading to a variety of technologies to transform the resources of the earth at mind boggling scales and efficiency for productive purposes has accelerated with incredible speed in the aftermath of the Second World War and at the turn of the twenty-first century. We find ourselves in an era where the scales of production have to literally bulldoze in order to open up markets so that the frenzy of production and consumption can be sustained. The environmental, social and cultural impacts of such frenzy are obviously tremendous.

All of a sudden, farming and other similar communities whose engagement with the market has been minimal and who have subsisted through self-reliant and locally-exchanged forms of transaction of essentials have become the targets of a double-headed onslaught. Since they occupy lands abundant with nature's resources – water, forests, and minerals – they must vacate these places so that these natural resources are easily available for the voracious needs of global production such as dams, logging, mines, electricity, roads and so on. At the same time, their own methods of production must be altered to bring them in line with that of expanding markets. The farmer's privileged right to save seeds for the next crop with no market intervention is being furiously challenged through technologies and related legislations that make the use of a seed that can not grow the next year and has to be bought again.

The impact is not only on the community-based self-reliant modes

of production. Since these production systems are intrinsically linked to systems of empirical knowledge and beliefs, their dismantling also has a predatory impact on the related knowledge and belief systems. There is of course a residue of such empirical knowledge that is critically vital for the market-based production systems. The recent trade-related legislative systems have now ensured that such knowledge, morally belonging to the communities that generated it and historically available in the public domain, can also be commodified through the system of monopoly patents; thereby ensuring that systems of knowledge and production are together either dismantled or simply legally stolen for generating profits.

### *Resistance*

The response to such changes worldwide has naturally been varied. There is a growing feeling that traditional sites of middle-class resistance like universities have been weakened. Policy changes are making them increasingly dependent on corporate rather than public funds. Also, the benefits of the neo liberal economy have trickled to the academia through a host of projects and consultancies that is overcoming the will to criticise or resist. The kind of resistance witnessed from such sites in the sixties and seventies has at best turned to passive cynicism.

A newer form of cross-border middle-class resistance has been visible since the WTO protests at Seattle. It was centred on NGO's engaged with a variety of establishment policies and institutions through critical collaboration and/or confrontation. The World Social Forum became its visible manifestation. Time will tell about the impact of such actions.

The actual sites of resistance are less visible. These are the subsistence farmers, agricultural labour, local artisans, weavers, and other small-scale industries, communities of indigenous people, and women who have to ferry water, fuelwood and fodder. The loss of control on natural resources through relentless 'development' that does not benefit them but is crucial to their subsistence and their forced displacement from their livelihood sites, which displaces them from their traditional skills, cultures and social relations pushed a majority of the population in the developing world to the brink. The dreams of increased jobs in the high growth economy are also being shattered. In China, for example, thirteen million people were reported to have been laid off from large factories in 2000.

The directly affected populations have been increasingly getting organised as people's movements all over the world and waging a valiant

battle for their rights and survival. The sites for these resistances are local though they have a variety of support from middle-class persons. The worldwide phenomenon of anti-dam, indigenous persons, rural women, agricultural labour, fisherfolk, and artisan movements are evidence that unlike a majority of the middle-classes, people are not meekly accepting their victim status in the present dispensation but vigorously resisting it. Such resistance is not only reactive. People are also engaged proactively in seeking alternatives through a variety of efforts such as local production, local governance, community money, water harvesting, alternative education, involving large scale community mobilisation. It is more than perhaps the dissenting scholars who are showing a way out of the 'There Is No Alternative to the neo-liberal economy' (TINA) syndrome. Environment is not merely a 'natural resource' for consumption for such populations. Their perception of environment includes it being integral to their knowledge and culture, organic to their entire life-systems.

Tim Ingold in his 'Perception of the Environment' (London: 2000) provides an analysis that goes beyond the limited view of 'natural resource management', and in what follows, we shall examine his insights in some detail since they contain elements for an influential alternative way of looking at the issue.

### **The perception of the environment**

An unbundling of notions of the environment, nature, technology and culture forms the substance of Tim Ingold's work. The book uses data from communities that subsist largely on hunting-gathering techniques to illustrate his thesis for a re-imagining of perceptions regarding the network of relationships humans encounter and create. The focus is on pivotal areas like skills and livelihood techniques, creation of artefacts and tools to problematise contemporary positions on the location of culture, nature and the relationship between people and the environment. It is an argument for a more holistic embedded way of approaching not only the relationships entered into by humans but of the entire territory of societal networks and the position of humans within this matrix.

### ***Culture, nature, environment: towards a revised vocabulary***

The analytical and conceptual separation of arts and humanities from natural sciences is a central concern for Ingold, as also for a large number of intellectuals the world-over. This disconnect would seem to be symptomatic of a larger dissonance, a fragmentation of human ways



of being and more disturbingly, of understanding and defining relationships with non-human species and nature (referred to as environment). This can cause a fundamentally flawed understanding of concepts such as nature, technology and culture, and creates a skewed vision of the rubric of societal relations.

"These fractures ultimately seem to derive from a single, underlying fault upon which the entire edifice of Western thought and science has been built – namely that which separates the 'two worlds' of humanity and nature. And it also cleaves anthropology into its socio-cultural and biophysical divisions. My aim has always been to bring together these two sides of anthropology", says Ingold. The critical task for this kind of anthropology is thus to understand the reciprocal interplay between the two kinds of systems-social and ecological.

According to Ingold, the traditional anthropological as well as scientific view was to construct the perception of environment as a processing of the world inside peoples heads. It was supposed that the mind got to work on the raw material of experience - sensations of light, sound, pressure etc, and organising it into an internal model which could act as a guide to subsequent action.

As a counter to this, Ingold refers to the work of James Gibson (1979). "Gibson's work was an attempt to throw out the idea that has been with us since the time of Descartes of the person as a distinct organ that is capable of operating upon the bodily data of sense. Perception, Gibson argued, is not the achievement of a mind in a body, but of the organism as a whole in its environment, and is tantamount to the organisms own exploratory movement through the world. If the mind is anywhere, it is not 'inside the head' rather than out there in the world. Rather, it is immanent in the network of sensory pathways that are set up by virtue of the perceivers' immersion in his or her environment. The mind is not limited by the skin." Ingold refers to such an ecological approach to perception as **ecological psychology**.

This discomfort with these dichotomies – between person and organism, society and nature – can be resolved. "Instead of trying to reconstruct the complete human being from two separate but complementary components – biophysical and socio-cultural – held together with a film of psychological cement, we should be trying to find a way of talking about human life that eliminates the need to slice it up into these different layers. The person is the organism, not something added on top.

Understanding persons in this way calls for a kind of relational thinking that goes against the grain of the 'population thinking' that is *de rigueur* in biological sciences since the establishment of the synthesis of Darwinian theory and population genetics. The parallel stream in science would be in the field of developmental biology. The characteristics of organisms, it is argued in this field, are not so much expressed (as blueprints already established by natural selection) as generated in the course of development, arising as emergent properties of the fields of relationship set up through their presence and activity within a particular environment.

Ingold finds a fundamental unity in these two positions – between Gibsonian ecological psychology and developmental biology. He suggests they represent a more valid form of anthropological enquiry with the natural science reasoning to back it.

Both approaches take as their point of departure the developing 'organism-in-its environment', as opposed to self-contained individuals confronting a world 'out there'.

"Crucially, such a synthesis would start from a conception of the human being not as a composite entity made up of separable but complementary parts, such as body, mind and culture, but rather as a singular locus of creative growth within a continually unfolding field of relationships."

There are three main implications of this approach:

1. Much of what we are accustomed to call cultural variation in fact consists of variations of skills. By skills, it does not mean techniques of the body but the capabilities of action and perception of the whole organic being situated in a richly structured environment. As properties of human organisms, skills are thus as much biological as cultural.
2. Skills are not transmitted from generation to generation but are re-grown in each, incorporated into the *modus operandi* of the developing human organism through training and experience in the performance of particular tasks.
3. The study of skill demands a perspective that situates the practitioner in the context of an active engagement with the constituents of his/her surroundings. Ingold refers to this as the 'dwelling perspective' (as opposed to a 'building perspective', which rests on a dichotomy between culture as opposed to materiality).

### *Human-animal relationships and the ecology of life*

Humans are brought into existence as organism-persons within a world that is inhabited by beings of manifold kind – both human and non-human. Therefore, relations among humans, who we are accustomed to calling social, are but a sub-set of ecological relations. Ingold refers to the entire set of these relationships as the **ecology of life** – organism plus environment as an indivisible totality that is a process in real time.

He uses the term **sentient ecology** to describe the kind of knowledge people have of their environment. “It is knowledge not of a formal, authorised kind, transmissible in contexts outside those of its practical application. On the contrary, it is based in feelings, consisting in the skills, sensitivities and orientations that have developed through long experience of conducting ones life in a particular environment. Another word for this kind of sensitivity is **intuition**. It is not contrary to science and ethics or to hardwired imperatives of human nature. On the contrary, it rests in perceptual skills that emerge for each and every being through a process of development in a historically specific environment. These skills provide a necessary grounding for any system of science and ethics that would treat the environment as the object of its concern.

This understanding of skills also serves to foreground their learning through a kind of close attention. This form of attention breaks from the position that allows us to see speech merely as vehicles of symbolic communication, as serving to give outward expression to such internal states as anger, joy, and frustration. Rather, within this paradigm of sentient ecology, sound would be seen to be growing out of our entire being. “The sound is not broken off from your mental state and dispatched like a message in a bottle. When you yell in anger, the yell *is* your anger, it is not a vehicle that carries your anger. There is no sound that is broken away from the tree of life”. (Janacek: 1989, 880)

### *Nature*

A comparison between non-western and western intentional worlds assumes the primacy of the western ontology, with its dichotomy between nature and culture or between physical substance and conceptual form. This is the root of the discomfort and disjuncture – a fundamentally flawed approach to understanding human-environment relations.

One may argue that hunter-gatherers (as representative of non-western thought) do not, as a rule, approach their environment as an

external world of nature that has to be grasped conceptually and appropriated symbolically within the terms of an imposed cultural design. The separation of mind and nature has no place in their thought and practice (by extension, nature and culture are perceived with a similar unity). This ontology of dwelling provides us with a better way of coming to grips with the nature of human existence than the alternative western ontology whose point of departure is that of a mind detached from the world. That has to formulate it to build an intentional world in consciousness prior to any attempt at engagement. "The contrast, I repeat, is not between alternative views of the world; it is rather between two ways of apprehending it, only one of which (the western) may be characterised as the construction of a view, i.e. as a process of mental representation. As for the other, apprehending the world is not a matter of construction but of engagement, not of building but of dwelling, not of making a view *of* the world but of taking up a view *in* it."

***Man-nature relationships: locating the self and the environment***

Several instances of hunter-gatherer communities in the forest refer to the forest as 'Father' or 'Mother', because it gives them food, warmth, shelter and clothing, just like their parents. Moreover, like their parents, it gives them affection. More generally, this is the notion that the environment gives the wherewithal of life to people, not in return for appropriate conduct, but unconditionally. Among neighbouring populations of cultivators, by contrast, the environment is likened to an ancestor rather than a parent, which yields its bounty only reciprocally, in return for favours rendered. It is this difference in orientation to the environment that most fundamentally distinguishes hunter-gatherers from cultivators, and is upheld even when the former draw (as they often do) from cultivated resources and when the latter, conversely, draw on the 'wild' resources of the forest.

Extended to anthropological conceptions of the economy of knowledge, this explains why hunter-gatherers consider time spent in the forest to be well spent even if it yields little or nothing by way of useful return. There is a concern with the activity itself, since it allows people to keep in touch with the non-human environment and because of this, people know the environment intimately in the way one "knows" close relatives with whom one shares intimate day to day life'. (Bird David: 1992, 39) The cultural intelligence of human beings, thus, does not depend on the western

notion of inter-subjectivity (the constitutive quality of the social domain as against the object world of nature) but on inter-agentivity. To speak of the forest as a parent is not, then, to model object relations in terms of primary inter-subjectivity but to recognise that at root, the constitutive quality of intimate relations with non-human and human components of the environment is one and the same.

*The ontological equivalence of humans and animals in the cree' worldview*

The Cree people, native hunters of north eastern Canada, often engage in hunts for reindeer or caribou. When pursuing the deer, there often comes a critical point when the animal becomes aware of the hunter's presence. "It then does a strange thing. Instead of running away it stands stock still, turns its head and stares you squarely in the face". The Cree explain this by saying that the animal offers itself up, quite intentionally and in a spirit of good will or even love towards the hunter. The bodily substance of the caribou is not taken, it is received. And it is at the moment of encounter, when the animal stands its ground and looks the hunter in the eye, that the offering is made.

Ingold uses this story repeatedly to illustrate several issues regarding man-environment relationships in hunter-gatherer communities, which we shall come to presently. Here, the point being made is that from the Cree perspective, personhood is not the manifest form of humanity; rather the human is one of the many outward forms of personhood. And so when Cree hunters claim that a goose (or a reindeer) is in some sense like a man, far from drawing a figurative parallel across two fundamentally separate domains, they are rather pointing to a the real unity that underwrites the differentiation. "For the Cree, life has a different meaning. The terms *pimaatisiwin* (life) was translated by one Cree man as "continuous birth". To be alive is to be situated within a field of relations which, as it unfolds, actively and ceaselessly brings forms into being; humans as humans, geese as geese etc. Far from revealing forms that are already specified, life is the process of their ongoing generation. Every living being then emerges as a particular, positioned embodiment of this generative potential. Hence personhood, far from being added on to the living organism, is implicated in the very condition of being alive. Organisms are not just *like persons*, *they are persons*.

***Perceiving the landscape: mapping interior spaces***

Ingold refers to an idea among the aboriginal communities of Australia that the landscape was formed, once and for all time, through the activities of beings ancestral to humans as well as other to all other living things who roamed the earth's surface at an era conventionally known as the Dreaming. The action of these powerful beings-human, animal and monster, created the world as it now exists; they gave it outward form and internal structure. Features like mountains and deserts are more than mere marks of these ancestral activities; they rather metamorphosed into the forms of the landscape as they went along. Ever present in these forms, their movements are congealed in perpetuity. This landscape furnishes its inhabitants with all the lineaments of social and personal identity, providing each one with a specific point of origin and destiny.

In the terms of conventional anthropological studies, there is a complete inversion of this worldview. The landscape is perceived as a barren space, a vacuum, on which the aboriginal communities 'map on' their cultural construction. This contradicts the aboriginal ontology, which is premised on the fundamental indissolubility of the connection between people and the landscape. Ingold uses this illustration to demonstrate the inherent difficulties in the conventional tools of analysis that rest on this very separation.

***Building, dwelling, living***

"To move beyond the sterile opposition between the naturalistic view of the landscape as a neutral, external backdrop to human activities, and the culturalistic view that every landscape is a particular cognitive or symbolic ordering of space. I argue that we should adopt, in place of both these views what I have called a 'dwelling perspective', according to which the landscape is constituted as an enduring record of – and testimony to – the lives and works of past generations who have dwelt within it, and in doing so, have left there something of themselves."

We can see how by adopting a dwelling perspective, i.e. by taking the animal-in-its-environment rather than the self-contained individual as our point of departure, it is possible to dissolve the orthodox dichotomies between evolution and history and between biology and culture. For if by evolution we mean differentiation over time in the forms and capacities of organisms, then we would have to admit that changes in the bodily orientations and skills of human beings, in so far as they are historically conditioned by the work of predecessors (along with the enduring

products of that work, such as buildings), must themselves be evolutionary. And if by cultural variation, we mean those differences of embodied knowledge that stem from the diversity of evolved human universals; such variation must be part and parcel of the variation of all living things, which has its source in their enmeshment within an all-encompassing field of relations. It is not necessary then to invoke one kind of theory, of biological history, to account for the transition from nest to hut, and another kind, of cultural history, to account for the transition from hut to skyscraper. For once history is itself recognised as an evolutionary process, the point of origin constituted by the intersection of evolutionary and historical continua disappears, and the search for the first hut-for the beginnings of architecture, history and true humanity-becomes a quest after an illusion.

*The topology of environmentalism: maps as guides to internal states*

Here, Ingold deals with the significance of the image of the globe in the language of contemporary debate about the environment. "While it has long been deployed in geo-political contexts and even longer in astronomy and navigation, my impression is that its use as a characterisation of the environment is rather recent. Phrases like global environmental change are rather paradoxical since the environment, surely is that which surrounds, and can exist, therefore, only in relation to what is surrounded. My idea is that what may be called the global outlook may well tell us something important about the modern conception of the environment as a world which, far from being the ambience of our dwelling, is turned in upon itself, so that we who once stood in its centre become first circumferential and are finally expelled from it altogether". In other words, what is suggested is that the notion of the global environment, far from marking humanity's reintegration into the world, signals the culmination of a process of separation.

Much of the current concern over the global environment has to do with how to manage this earth of ours. That it is ours to manage, however, remains more or less unquestioned. Such management is commonly described in the language of intervention. This implies that human beings can launch their interventions from a platform above the world, as though they could live on or off the environment but are not destined to live *within* it. The point is that the notions of destruction and damage limitation are rooted in the language of intervention i.e. they presume a world already constituted through the action of natural forces, which

then becomes the object of human interest and action. To humans, this world is presented as a spectacle. Indeed, what is most striking about the contemporary discourse of global environmental change is the immensity of the gulf that divides the world as it is lived and experienced by the practitioners of this discourse, and the world of which they speak under the rubric of 'the globe'.

By extension, the distinction between local and global perspectives is not one of scale but of kind. The local is not a more limited or narrowly focused apprehension than the global. It is one that rests on altogether different mode of apprehension – one based on practical, perpetual engagement with components of a world that is inhabited or dwelt in, rather than on the detached, disinterested observation of a world that is merely occupied. In the local perspective the world is a sphere.

***Skills and technology: problematising 'simplicity'***

For many centuries, Western thought has been dominated by the idea that the mission of mankind is to achieve mastery over nature. The world of nature is commonly characterised by its opposition to the essential condition of humanity, whose purest expression is taken to be civil society. The meaning of 'technology' as currently understood in the West is firmly fixed within this polarity of society and nature. Thus, society is considered to be the mode of rational beings, nature the external world of things as it appeared to the reasoning subject and technology the means by which a rational understanding of the external world is turned to account for the benefit of society. The evolutionary anthropological view thus posited that the more 'civilised' the society, the more complex its technology, the more complete was its mastery over nature. Conversely, in primitive societies, with 'simple' technologies, control over nature was weak or non-existent. This view is of course dated, yet "despite the anthropological critique of the evolutionist doctrine of technologically driven progress, no one seems to doubt that there is a sphere of capability in every human society that can be identified by the concept of technology and that in hunter-gatherer societies it may be marked by its relative simplicity". The common assumption between both these views (evolutionary and contemporary anthropology) is that the "technology comprises an objective system of relations among things, that is wholly exterior to the social domain of relations among persons. The impact of technology may be positive or neutral but in itself technology has no part in society, it is simply an independent, external factor". It is this conceptual separation



of technology and society that Ingold attempts to challenge. "My thesis in a nutshell is this – in the societies we study, including our own, technical relations are embedded in social relations and can only be understood in this relational matrix, as one aspect of human sociality.

Two further claims follow:

1. What is usually represented as a process of complexification, a development of technology from simple to complex would be better seen as a process of externalising or disembedding a progressive cutting out of the technical from social relations.
2. The modern concept of technology, set up as it is in opposition to society, is a product of this historical process. If that is so, we cannot expect to find a separate sphere corresponding to technology wherever we choose to look.

The central claim thus is that **"there is no such thing as technology in pre-modern societies"**. This does not mean that people in such societies lack tools or skills. Rather, the concept of technology from contemporary Western usage sets out to establish the epistemological conditions for society's control over nature by maximising the distance between them. In hunter-gatherer societies, "through their tools and techniques they seek to minimise this distance, drawing nature into the nexus of social relations, or humanising it". This 'drawing in' has as its objective to establish the conditions not of control but of a kind of mutualism. In this, the tool delivers a force that is personal rather than mechanical. Hence, technical relations far from being separate from social relations are embedded in them.

From their perspective, tools are like words, they mediate relations between humans and the equally purposive non-human agencies with which they perceive themselves as being surrounded. Thus, the tool is a link in a chain of personal rather than mechanical causation, which serves to deliver intentional action and not merely physical or bodily force. In hunting, it is commonly supposed that the animal gives itself to be killed by the hunter who as a recipient occupies the subordinate position in the transaction. The spear, arrow or trap serves as a vehicle for opening or consummating a relationship. If the arrow misses its mark or the trap remains empty, it is inferred that the animal does not as yet intend to enter into a relationship with the hunter by allowing it to be taken<sup>2</sup>. In that way, instruments of hunting serve a similar purpose to the tools of

divination, revealing the otherwise hidden intentions of non-human agents in a world saturated with personal powers of one kind or another. Tools for hunters would be aptly seen as an instrument of revelation”.

Regarding notions of simplicity versus complexity, by comparing Australian Aboriginal and Inuit toolkits, it might seem at first glance that the first is extremely simple and the second rather complex. But a more significant difference is between the economy and versatility of the Australian toolkit and the diversity and specialisation of the Inuit one. Australian aboriginal people have few tools but use them in whatever way they come handy, for manifold purposes that we might never come to think of when we classify the objects by function. Inuit have many tools, some of them - like the harpoon - of great complexity and ingenuity but each is used for a prescribed purpose which governs the manner of its construction. It is only because a peculiar bias leads us to look for technical operations in the properties of the tools themselves, rather than in the know-how of their users, that we are led to conclude that the Inuit are somehow more ‘advanced’ in the technical sphere than the Australian Aborigines. The source of this bias lies in the concept of technology outlined above.

These observations all point towards a single conclusion that to comprehend the technical accomplishments of hunter-gatherers (or of any other people), it is not sufficient just to look at their tools. We have to understand their knowledge. Tools are of no use if you do not know how to work with them; moreover up to a point, the simpler the tools, the more skilled you have to be to be able to work it effectively.

The key to understanding technical know-how means focusing on artifice rather than artefacts, on tool-use as skilled practise rather than the mechanical operation of exterior devices. Artifice here is the personal knowledge, partly intuitive, largely implicit, deeply embedded in experience that one ‘grows into’, which is indistinguishably social and technical.

### ***Artefacts and cultural weaving: culture in the ecology of life***

The construction of artefacts is supposed to be characterised by a transcription of a prior design onto raw material. Ingold argues, “on the contrary, that the forms of artefacts *emerge* through the unfolding of a system of relations comprised by the presence of the artisan in a richly constructed environment that could include other persons, other examples

of artefacts, a selection of materials and a range of tools and supporting surfaces." Ingold refers to practices observed amongst Telefol<sup>3</sup> girls, who are taught to loop string bags. "Telefol girls develop their looping skills at a time of life when their bodies are also undergoing rapid growth. These skills, then, far from being **added on** to a pre-formed body actually grow with it. In that regard, they are fully part and parcel of the human organism, of its neurology, musculature, even anatomy and **so are as much biological as cultural**. To be sure, the skills are acquired, in the sense that at whatever stage in the life cycle they may be identified, a history of development already lies behind them. The same would have to be said of the knotting and looping skills of weaverbirds or of *any* skill, human or non-human. Moreover, one could also claim such skills are innate, in the sense that so long as the necessary environmental conditions are in place they are more or less bound to develop. All Telefol girls learn to make string bags just as they all learn to walk and speak. All male weaverbirds learn to make nests unless opportunities for practice are artificially removed. Conversely, Telefol boys and female weaverbirds never develop fully blown weaving and looping skills since their respective activities and concerns take them too soon into other fields of practice. "In short, whatever the difference between the two sets of skills, avian and human, it cannot be aligned on the axis of a distinction between the innate and the acquired." A more valid step towards understanding this difference between human and non-human skills would focus on the fact that humans differ from other animals in that they are peculiarly able to treat the manifold threads of experience as material for further acts of weaving and looping, thereby creating intricate patterns of metaphorical connection. This interweaving of experience is generally conducted in the idioms of speech, as in story telling, and the patterns to which it gives rise are equivalent to what anthropologists are accustomed to calling culture. "And if one were to ask where culture lies; the answers would not be in some shadowy domain of symbolic meaning, hovering aloof from the 'hands on' business of practical life, but in the very texture and pattern of the weave itself." The analogy is thus clear – artefacts (and by extension, 'culture/s') grow, like organisms they are generated from the environmentally situated process in which they are located. The forms and capacities of these organisms/artefacts are attributable not to 'genes' or 'the environment' but to the properties of developmental systems, which encompass these variables and more.

### **Politics, essentialism and search for meaningful action**

We now attempt to collate some arguments and positions articulated across the spectrum of literature on the link(s) between environment and culture that can provide motivations and perspectives to practice. It is not meant to be an argument or authoritative labelling of literature. Rather, it is an attempt to demarcate territory, a charting of landmarks and contours in the discourse surrounding (constituting?) this domain. The rationale is essentially a desire to evaluate the usefulness of these theories in terms of the Indian experience, to relate thought to practice in a context that is mostly 'Indian' (itself a nascent and varied category). It is not our intention to create an exhaustive list nor do we claim to create an objective catalogue of ideas. Indeed, one of the motivations is to indicate what we feel are essentially flawed ways of constructing the man-nature-culture link and problematise the assumptions that several popular constructs are based on. Central to this writing is an attempt to establish the importance and omnipresence of the political – the term being used here in the widest possible sense, across various manifestations and contexts.

### ***Ways of seeing/ways of being: theories of the environment and the self***

In current discourse there are two ostensibly opposing viewpoints on describing the relationship between man and nature.

The Litany of Human Excess: A form of neo-environmental determinism that gained prominence during the 1960s held that nature places limits on social development. These 'limits to growth' are manifested in four major areas:

- Natural resources are running out,
- The population is ever growing, leaving less and less to eat,
- Species are becoming extinct in vast numbers: forests are disappearing and fish stocks are collapsing, and
- The planet's air and water are becoming ever more polluted.

Biologist Paul Ehrlich in his book, the Population Bomb(1968), argued that the rapid population growth was running into fixed limits on food and other natural resources, and that it would soon outstrip the earth's 'carrying capacity' for human population. Another prominent publication is the annual report 'The State of the World' brought out by Lester Brown's Worldwatch Institute since 1984. The series attempts to identify the world's

most significant challenges professionally and veraciously. The underlying assumption behind these arguments is that the relationship between nature and society is not amenable to vast industrialised growth and the standards of living in 'developed' parts of the world are unsustainable. In India (and other developing countries), this argument is usually couched in terms of a population explosion gobbling up limited gains from development. A newspaper editorial commenting on the 'crisis' in water availability says: "If the government fails, people have to take the matter in their own hands. Rainwater harvesting is the only solution. There will be an increasing number of riots over water. The choice is between rainwater harvesting and a *parched, violent future*." (Mahapatra: 1999, emphases added) These neo-Malthusian ideas are manifested in the agendas of organisations like Earth First! which argue for 'humane' population control in the developing world. A different stream of thought emphasizes instead the need for a value-based approach to the environment, based on the morality of frugality and 'sustainability'.

### *The skeptical environmentalist*

The central argument is that while there is some environmental stress being caused by human growth, such problems can be tackled or reduced through adequate management.

"First, energy and other natural resources have become more abundant. Second, more food is now produced per head of the world's population than at any time in history. Fewer people are starving. Third, although species are indeed becoming extinct, only about 0.7% of them are expected to disappear in the next 50 years, not 25-50%, as has so often been predicted. And finally, most forms of environmental pollution either appear to have been exaggerated, or are transient – associated with the early phases of industrialisation and therefore best cured not by restricting economic growth, but by accelerating it." (Lomburg: 2001)

Such institutionalized models perceive human interventions as actually being good for the environment as a means of increasing the efficiency and productivity of natural resources and in maintaining the natural balance at an optimal level (for humans) more effectively due to improvements in technology available.

"Of course, rational environmental management and environmental investment are good ideas, but the costs and benefits of such investments

should be compared to those of similar investments in all the other important areas of human endeavour. It may be costly to be overly optimistic, but more costly still to be too pessimistic.” (Lomburg: 2001)

The emphasis is thus on rationality and scientificism, where the environment is treated as another resource to be managed in a productive, sustainable manner.

There are certain interesting points that emerge from this sketchy juxtaposition of views:

- One, that while they are apparently diametrically opposed, they are based on a **single epistemology of nature as resource** – one to be nourished/stewarded or managed wisely, certainly, but a reserve to be extracted and used by humanity for its common good. *The opposition is thus not in the way of seeing the environment, but the manner of its ‘use’ and the limits it can be used to.*
- Two, trouble arises when the environment is ‘exploited’ in a manner unsuited or incompatible with the culture of that country/region. This is evident in Lester Brown’s critique of China replacing the United States as the world’s leading consumer. “Although the United States has long consumed the lion’s share of the world’s resources, this situation is changing fast as the Chinese economy surges ahead, overtaking the United States in the consumption of one resource after another. Among the five basic food, energy, and industrial commodities – grain and meat, oil and coal, and steel -consumption in China has already eclipsed that of the United States in all but oil. Although eating hamburgers is a defining element of the U.S. lifestyle, China’s 2004 intake of 63 million tons of meat has climbed far above the 37 million tons consumed in the United States.” (Brown: 2005) **The central critique is thus of the aping of American lifestyles by the Chinese – the creation of appetites that are alien to their culture are positioned as the cause behind a burgeoning crunching of raw materials and mammoth industrialisation.** This implies several important things, which we shall discuss in more detail later in this paper. Here, we wish to highlight the construction of culture as an entity separate from, though in engagement with, the environment-as-resource, that runs across both paradigms.
- Three, the emphasis on **sustainable development**. The notion of sustainability is central to both doctrines of thought. Despite significant differences in the manner in which this is conceived, and the methods

towards achieving it, it is interesting to note that they concur on the existence of this equilibrium point in using natural resources. Further, they also agree that failure to adopt this goal will be a setback/disaster for all of humanity. Akhil Gupta refers to this as the 'Spaceship Earth' motif i.e. the view that "we are all in this together. (But) who defines what 'this' is? ...The idea that behind the petty regional and national squabbles that beset the earth and the pursuit of narrow economic interests lies the true vision, the real truth that we all share one earth, is thus a call for a larger vision that is itself firmly ensconced in a parochial (West-centric) conception of what constitutes a larger vision." (Gupta:1998)

### *Technocentric and ecocentric environmentalisms*

Cecile Jackson suggests another way of looking at 'environmentalisms' or 'the ideologies and practices which inform and flow from a concern with the environment'. (Jackson:1981)

- Technocentric environmentalism, which is the dominant discourse, holds that environmental problems can be managed with technical means and economic incentives. **"It has no awareness of its own ideological stances nor of the impossibility of neutrality in resource relations"**. While the emphasis on sustainability has served to make policy decisions based on technocentric approaches less technocratic and more participatory, this participation is always assumed to be unproblematic and ungendered. "It fails to see that what may empower poor men may not empower poor women and vice versa".
- Ecocentric environmentalisms are radical, utopian, romantic and characterized by their **bioethical standpoints-that is, nature is valued not only for its usefulness to mankind.**

"Ecocentric environmentalism can be traced to European romanticism of the seventeenth and eighteenth centuries and to nineteenth century American transcendentalism. In this reaction against rationalism and science, alternative knowledge based on feelings, emotions, instincts and morals were revalued."<sup>4</sup> (Jackson: 1994)

A fairly representative view is that of bioregionalism. **"Bioregionalism"** advocates an ecological politics of place. It starts with 'bundles' of materials describing a bioregion and its history/maps, native species lists, ecological studies, histories, stories, poems, and celebrations

of the inhabitants' ways of life. (Merchant: 1992)." Knowing the land, learning the lore, developing the potential, and liberating the self are the tasks of the would-be bioregionalists as seen by Kirkpatrick Sale, one of the leading advocates of this concept.

**Ecofeminism** also forms an important part of this discourse. Broadly speaking, ecofeminists see women as closer to nature than men, they oppose the domination of nature by humanity and insist that nature has no hierarchies which are seen to be derived from hierarchical human societies and imposed upon nature.

For our purposes, it is important to note certain common themes that emerge from an examination of such eco-centric environmentalisms:

1. There is an emphasis on the **connections between man and nature**, beyond the user-resources dichotomy mentioned earlier. The foregrounding of an intrinsic man-nature unity, particularly in pre-industrial or subsistence communities owes much of its prominence in discourse to these currents of thought. This appears to be a radical break with the technocentric emphasis on the environment being used for human progress – in fact it is a reaction to such thought. However, it is important to note that ecocentric selflessness or the principle of nature not being for the use of humans has been a divisive element in ecofeminism, resisted by some to the point of renouncing ecofeminism and embraced by others.
2. **The centrality of myths:** "Earth is a goddess", wrote Xenophon in the fourth century before Christ, "and teaches justice to those who can learn". Justice and compassion and prudence and appropriateness and harmony, all of what were later called the cardinal virtues: "The better she is served", Xenophon taught, "the more good things she gives in return". (Sale:1983) Sale also repeatedly refers to Gaea, Greek goddess of the earth, "mother of all of life and oldest of gods who make and feed and guide all creatures of the earth". These myths are used by ecocentric advocates to prove their 'ancient credentials'. The attempt establish a link with knowledge systems that precede and challenge the rationality of the industrialised era (all the way from its emergence in the Enlightenment). For Vandana Shiva, this unified state of people with nature in pre-colonial India is the feminine principle of 'Prakriti', a living and creative process, the feminine principle form which all life arises. Interestingly, figures like Gandhi and Schumacher, and now Bahugana and Medha Patkar



are also a part of the pantheon of figures invoked to give legitimacy to these arguments. Part of their efficacy in serving as trans-context rallying points for movements and thought is due to the clear link they have managed to establish with an 'authentic, rooted' thread of knowledge.

3. A **valorization of small communities** in underdeveloped nations as the preserves and guardians of this authentic knowledge and holistic lifestyles. For Shiva, women are "natural seed keepers ... the intellectual gene pools of ecological categories of thought and action" (Jackson: 1994), guardians of traditional wisdoms and the secrets of sustainability. A related point is the feminization of nature, as seen in Sale's invocation to Gaea. Women are thus seen as universally more close to nature; the forces of war and destruction as well as environmental degradation are linked to the masculine principle and practices.

By far the most important contribution of these cosmologies has been to establish the legitimacy of conceptualizing the relationship between man, culture and environment in unitary terms rather than dialectic interplay. Without discounting this and other essential contributions, we would like to point out the following:

- An ecocentric perspective does not **inherently carry within it progressive/empathetic attitudes towards marginalised and vulnerable communities** and may in fact lead to preferences for skewed models of/attitudes towards development. For instance, spiritual ecofeminists argue for reducing population because excess numerical growth is seen to magnify environmental degradation and therefore impacts on the non-human community. (Eckersley in Jackson:1994) They also support population control in the Third World and restrictions on migration from the South to the North. These arguments for 'humane birth control' are clearly flawed even seen through a non-feminist lens; they also ignore a debate on sterilization drives in the developing world that have violated the reproductive and human rights of women.
- Naturalizing women, and gender relations, has been seen by western feminists as a means of justifying gender inequality and therefore to be resisted. Ecofeminists, however, rather than resisting the idea that women are linked with nature, celebrate and revalue this linkage. **"Ecofeminist discourses are innocent of gender analysis in**

**which masculinity and femininity are relational, socially constructed, culturally specific and negotiated categories.”**

(Jackson:1994) Women are essentialized as a unitary category, undifferentiated by class/location/age/caste status or even self-interest. They are conceived as virtuous producers in touch with nature through the link of child bearing and nurturing, an imagery laden with biological determinism of an overt kind. The empirical evidence for a view that women are universally closer to nature seems to be limited and is indeed treated as irrelevant by theorists like Shiva.

- Similarly, an ahistorical, reductionist, monolithic conception of patriarchy is central to ecofeminist literature. More generally, (men) peasants are seen as undifferentiated, virtuous, and cooperative. (Bernstein: 1990) A key problem here is that these ecocentric approaches fail to recognize either the diversity of lived environmental relations which different women and men experience, or the power structures in society which mediate environmental relations.
- The making of ecomyths which essentialize and romanticize both nature and non-western peoples, especially women, is typical of ecocentrism. The construction of the East as spiritual and ecologically aware is a form of Orientalism whereby agency and rationality are then, dichotomously seen as the preserve of the West. Consider Sale, denouncing the western approach to the environment: “It was not until the development of European science, from about the sixteenth century on that this animistic conception of the earth finally gave way, to be replaced by one supported by the new insights of physics, chemistry, mechanics, astronomy, and mathematics. The new perception held – more than that, in fact it proved – that the earth, the universe, and all within it operated by certain clear and calculable laws and not by the whims of any living, thinking being. The cosmos was in no sense like a purposeful, pulsatory celestial thing but rather, in the Newtonian image, something more like a giant clock. Europe’s scientific revolution – in the triumphant words of the seventeenth-century physicist Robert Hooke – enabled humankind “to discover all the secret workings of nature, almost in the same manner as we do those that are the productions of [human] Art and are managed by Wheels, and Engines, and Springs.” (Sale:1983) As Guha puts it, “Varying images of the East are the raw material for political and cultural battles being played out in the West. They tell us far more about the Western commentator and his desires than about the East.” (Guha in Jackson: 1994)

- **History appears in ecocentric thought in a largely linear, 'before and after' (scientific revolution, colonialism) manner.** Shiva's representation of pre-colonial harmony and equality is highly questionable for both gender relations (Sati in India, domestic slavery in Africa) and environmental relations. For instance, the Sanskrit texts that Shiva uses to construct her feminine principle were authored by high caste Hindu men, a fact that is glossed over in their glorification. Moreover, the idea of 'Indian' is equated quite easily with (upper caste, brahmanical) Hindu ethos in her work. This absence of a material and historical analysis is symptomatic of eco-centric analysis.
- To take some celebrated examples, the Chipko movement is widely invoked as an instance of spontaneous mobilisation by women in defence of the environment. In ecofeminist terms, it emphasizes the holistic understanding of women, the feminist character of the movement and the **altruistic motivations** behind the action. Yet what is underemphasized is an analysis of the material and historical conditions that led Chipko women into environmentally protective behaviour. Analyses like that of Guha's see it as part of a broader current of peasant protest. Chipko women can thus be seen as protecting a conservative moral economy. "Environmental protests by rural women cannot be disembodied from their livelihood systems, for threatened resources mean threatened subsistence. This may well mobilize the women to protest, but since the moral economy itself is imbued with gender inequality such struggles are not *necessarily* progressive for women nor are they driven by environmentalism. (Jackson: 1994)
- Empirical evidence has established that women are as likely to engage in environmentally destructive behaviour as men are, depending on their specific socio-economic situation and the perceived result of the environmentally beneficial behaviour. A study of the Joint Forest Management (JFM) programmes in Jharkhand revealed that women's practices regarding firewood collection were far from sustainable. (Jewitt and Kumar in Stott and Sullivan: 2000) The assumption of virtuous women/peasants can be more realistically replaced by the insight that environmentally destructive behavior is rooted in a desire for improved living standards.
- One example of a **representation of indigenous environmentalisms taken out of context** is the suggestion that menstruation taboos in Orissa are an expression of a unified conception of nature and culture in which the actions of humans must harmonize with the

movements of the sun, of the clouds, with their convergence or separation from the earth. (Marglin in Jackson:1998) The menstruation taboos that require women not to cook or wash or bathe etc. during their period are interpreted by Marglin in an unfounded manner. She emphasizes the release from work for menstruating women, which is misleading, since the work not done by this woman was performed by another non-menstruating woman, not a man. Submission to taboos emanating from a religion formed by elite males is decontextualised and presented as a superior organic unity of humanity with nature.

The common problem, to our minds, across both technocentric and ecocentric environmentalisms is ethnocentrism and essentialism, **as well as a lack of historical and material analysis**. As practitioners engaged in the study of the culture-environment link, it seems essential to us that these fundamentally flawed practices and assumption be factored in and acknowledged to avoid arriving at conclusions that are as myopic as they are untenable.

### ***Culture as power: bringing politics into the environment***

It is relatively easy to establish the link between nature and culture or assert the unity of this realm. It is trickier to bring the political into this equation, other than in the idiom of environmental 'movements' or struggles and state policy /international treaties dealing with the environment. Using arguments drawn from political ecology, with examples from the rain water harvesting (RWH) experience in India, we wish to demonstrate that environment and culture are profoundly political constructs, permeable to power dynamics just like other social entities. It is in this broad sense that we use the term political here.

As an analytical approach, political ecology locates environmental narratives in their political and social contexts. It foregrounds the political dimensions of the human-environment interaction, and demonstrates the extent to which the 'hard science' of the 'environment' is socially constructed and subject to (area-specific) political processes. It thus "starts with the premise that environment change has political sources, conditions and ramifications that impinge on existing socio-economic inequalities and political processes". (Bryant and Bailey: 1997)

Rainwater harvesting is a set of methods used for collecting and storing rainwater from rooftops, land surface or rock catchments. The rainwater collected can be stored for direct use or can be recharged into

the groundwater. The techniques usually found in Asia and Africa arises from practices employed by ancient civilizations within these regions. (CSE: 2003)

The increasing prominence and popularity of RWH in development discourse coincided with widespread concern in the Indian media and 'environmental' networks about the "crisis in groundwater levels". Overexploitation of groundwater resources to meet the needs of a burgeoning population, agriculture and industry was "driving the water table lower". "In several areas in North Gujarat, water is to be got only by digging as deep as 500 -700 feet. How long will even this water last?" In many areas, rechargeable reservoirs of groundwater were pumped dry long ago. Now, water which has collected in the deeper recesses of the earth for hundreds of years is being pumped out. It has a high content of dissolved minerals and is unfit for drinking." (Desai: 1999) This crisis manifested itself in the form of recurrent summer water shortages in cities and "crop failures and agricultural losses" and lack of drinking water in the villages. (Water, Vision 2050: 1999) In effect, it posited the neo-Malthusian concerns of an inherently stable and resilient nature-in-equilibrium being suddenly and damagingly disturbed by human activity due to population growth in the South. (Bradnock in Stott and Sullivan: 2000)

Harvesting rainwater runoff, it was claimed, could provide a clear solution to this crisis by reducing dependence on groundwater for consumption and irrigation needs as well as by recharging groundwater aquifers and reducing seawater ingress in coastal areas. (CSE: 1999) Advocates of the approach stress that it can be empirically proved that India receives enough rain even in the most arid of its villages that if harvested and used, can meet the drinking water and consumption needs of its population throughout the year. (CSE: 2000) Nevertheless, till the early 1990's the approach was largely dismissed by policy makers as 'supplemental' and remained for the most part invisible on planning documents.

The earliest example of the success of RWH as a multi-pronged development strategy (in popular imagination if not strict chronology) was the Tarun Bharat Sangh's (TBS) work in drought-prone Alwar district of Rajasthan. Starting with a single village in the mid-1980's, the NGO eventually collaborated with communities in 650 villages to repair and rehabilitate traditional water harvesting structures. (Sen: 2002) The

success of these initiatives in providing water for consumption, irrigation, livestock and even regenerating the green cover and river systems in this arid region captured media attention by the 1990's. Headlines hailed the organization's achievements as a 'miracle' and the 'creation of an oasis in the desert'; the villagers engaged in such project were 'miracle water harvesters'.

Interestingly, the Agriculture Ministry had embarked upon an integrated watershed development programme in the early 1980s targeting the rain-fed farming sector much before the media focused on water harvesting. "Twenty years later, a severe drought ravages parts of western and central India, (indicating) there must be something inherently wrong with these water harvesting techniques". (Sharma: 2000) To our minds, there are two crucial differences between the former and the latter. Firstly, the National Dry Farming Project (NDFP) was planned on the basis of technology adopted from the Tennessee Valley Authority (TVA). Sharma (2000) estimates that the programme launched in 4,200 watersheds eventually cost the exchequer nearly 16,000-crores rupees. The TBS however, emphasized the rehabilitation and repair of traditional water harvesting structures, such as johads (dams) and tankas (village tanks). These structures are small, local and cost a pittance to repair and maintain. They are also often intimately linked to ancient village traditions of water harvesting and use. Secondly, as a corollary the TBS also emphasized the importance of local knowledge and local people and integrated a strong element of community-based participation in its projects, which eventually branched into formation of women's self-help collectives and linkages with forestry programmes. (McCully: 2003)

It is very interesting to note that it is precisely these two aspects that are most emphasized in current government documents detailing RWH policies and projects, as opposed to its scientific, empirically determined advantages. The implication here is not that NGO programmes are inherently 'better' than government policies or indeed that NGOs as agents have more moral power emanating from an incorruptible sense of mission. Rather, the indication is towards the tremendous resonance the idiom and images of 'miracle harvesters', villagers as technological agents and 'traditional wisdoms' have for the Indian press and activist/NGO network as well as for foreign NGOs, governments and aid agencies. It thus illustrates the "relationship between popular understanding of the environment, the media need to process these issues as news stories, and wider political responses". (Chapman in Chapman and Thompson: 1995)

The widespread adoption of traditional RWH programmes almost ubiquitously by state development agencies, NGOs and governments was thus motivated by the simultaneous delivery of environmental benefit as well as social development.

Incidentally, the creation of these narratives of 'peoples water movements' also coincided with the global agenda of promoting 'good governance.' (World Bank: 1997) The concept is currently one of the crucial criteria that determine loans and aid packages from the World Bank and IMF (and hence all major multilateral and bilateral aid flows and debt relief from Northern donor agencies and governments). It involves the replacement of the minimalist state with the effective state, i.e. one that attempts to promote decentralization, democracy and participation as well as engages productively with civil society actors/NGOs. The prolific spread of RWH programmes across India owes a great deal to its ability to dovetail into these global concerns, in terms of financial support, strategic partnerships and 'good practice recommendations' by international aid agencies and/or governments.

The emphasis on local knowledge and traditional water management systems also reflects a decision to give priority to those issues that resonate well with first world publics. According to Guha, they draw on the fascination of the "full belly environmentalism" of the North for "aboriginal men in the rainforests of the Amazon" (Guha and Martinez-Alier: 1997); or with the post-material hankering after an unspoilt nature where local practices are romanticized as "templates of sustainability". (Murdoch and Clark cited in Bryant and Bailey: 1997)

Thus, it is clear that environmental 'benefits' are weighed against criteria determined by a myriad of power equations – local, historical and international; the perceived desirability of cultural practices concerning water are extremely open to such political influences. To carry this argument further, these cultural practices, far from being unproblematic, harmonious linkages to nature are themselves embedded with hierarchies of access and sovereignty, which are air brushed by interventions aimed at promoting 'good water practices'. For instance, journalist P. Sainath, in a series of articles on the 'Pani Panchayats' or Water Users Associations in Orissa reveals the farcical nature of such 'participative community based institutions'. "Aunli's Pani Panchayats have never seen an election, to any post whatsoever. The men who control Aunli's water cannot claim to represent any interests but their own. Indeed, it is true of

Pani Panchayats across Orissa". Deconstructing the model 'all women's Panchayat' he claims that the new institutions simply replicate the hierarchies of access that exist in the village. In fact, by vesting control over water within a hegemonic body controlled by the local elite, state policies have further deepened these inequalities, and entirely disenfranchised lower caste and marginal farmers. (Sainath: 2002)

Also profoundly political (albeit in a different sense) is the ability of communities under threat to **build coalitions across geographic boundaries** and demographic groups, centering attention on issues of environment, culture and livelihoods. "A superb example of such coalition building has been provided by the various grassroots groups who fought the World Bank's sponsorship of the Narmada Dam." (Gupta: 1998) Gupta links this coalition building capacity/necessity to the transformations in the nature of sovereignty in the postcolonial condition of the world. "This crisis of sovereignty (can be) understood as in terms of an 'unbundling of the territorial basis of nation states. The new modes of governmentality being instituted to regulate the relationship between people and things on a global scale are operating across this unbundled space, creating novel sites for modes of resistance."

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## Endnotes

- <sup>1</sup> The Cree people live around Muskrat Dam Lake, northern Ontario.
- <sup>2</sup> The Cree story about the Caribou mentioned earlier is an example of this worldview.
- <sup>3</sup> Inhabitants of central New Guinea.
- <sup>4</sup> There is necessarily an arbitrariness about labelling literature and movements; I wish to emphasize here that these categories are not watertight and often influence by each other. There is also a fair degree of overlap between categories of academic work and practice.

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