Political Perspective of Managing Water Demand

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INTRODUCTION
Demand management is one of two general approaches for the efficient delivery of water services. The traditional supply side approach, on the one hand, is through the construction of physical infrastructures to capture water for direct use. This is the approach favored by most water professionals as it provides a measurable output for the water services delivered.

The demand management approach, on the other hand, looks at changing the demand by changing the ways in which people use water in order to achieve more efficient and cost effective water use. Changes in the attitudes in how water is used can help reduce waste, thus obviating the need for new infrastructures to meet increased demands. In as much as demand management basically involves changes in human practices and behavior in water use, it would best to first examine the overall framework of water resources development and management within which demand management is applied.

The framework for the development and management of a country’s water resources is generally embodied in its water resources policy. In some countries, the national water policy is established in a formal document such as a legislative act or an executive order. In other countries, the water resources policies are piece-meal in character and are scattered in the many pieces of legislations and executive orders of the government.

Regardless of the form, the national policy sets the goals and objectives for water use, protection and conservation. In order to have an integrated framework for national development, however, the water resources policy must mesh with the overall national economic policy and other related national sector policies.

Water resources development and management affects almost every activity within the wider national economy and society, including migration, land use and settlements, economic growth and industrial activity. In a similar manner, developments outside the water sector should be evaluated for possible impacts on the water resource. The globally recognized approach to reconcile the issues of water, land and the environment, with the concerns of all stakeholders is integrated water resources management (IWRM). It may be noted that demand management works best in an IWRM framework that looks at all sectors of the national economy and makes proper links between policy instruments and impacts.

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Management of water resources requires an understanding of the nature and scope of the problem to be managed. One of the management instruments used in the implementation of IWRM is concerned with water resources assessment.

The assessment provides a holistic view of the water resources situation and its response to the activities of water users. Evaluation of the availability and quality of water resources is relatively straightforward. The demands for water use, however, will vary depending on the approach used for the efficient delivery of water services.

This brief note discusses the political perspectives on managing water demand as differentiated from the “traditional” perspectives of changing the practices and behaviors of the users for water supply, sanitation, irrigation, industry, etc. Political perspectives as seen in this note would include the national policies of governments as well as the actions of politicians or what has sometimes been called “political interference.” The focus in this note would be on the national policies on food production and water pricing, and political patronage at the project level.

FOOD PRODUCTION STRATEGY
The water resources assessment of a country would indicate the availability and quality of water in relation to the requirements of water for people, for food, for the environment, for industry and for other uses. When undertaken on the level of river basins, the assessment would indicate the basins that are water-rich and those that are under water stress. While demand management may be applied at any level, its impacts are effectively felt in the river basins that are under water stress.

Agriculture for food production is the largest user of water in Asia as well as in many developing countries. This situation is not expected to change in the immediate future. Thus any savings in water for agriculture through more efficient irrigation systems, better water management practices, improved crop varieties, etc., would result in substantial amounts of water that may be available for other uses.

An “externality” that has to be considered in the foregoing traditional methods of analysis in the assessment of water resources is the national policy on food production. This policy impacts not only on the water demand for agriculture, for people, and for the environment, but also on the other aspects of the national economy.

For countries that would adopt a policy of 100 percent self-sufficiency in food, massive capital investments may be required for irrigation and other infrastructures. In these countries, additional investments in the agriculture sector must take into consideration the financial needs of the other sectors of the national economy.

The policy on 100% self-sufficiency in food would also mean large withdrawals of in water for agriculture that can only be met in water-rich basins without unduly affecting the use of water for other needs. In basins where the availability of water resources is limited, water for the environment usually takes a lower priority to that of water for agriculture in order to meet the target of 100% self-sufficiency in food.
Some countries have opted to adopt food security as a national policy. In effect this means that food production is targeted to be less than that needed for 100% self-sufficiency. Importations of food will make up the shortfall in food production to meet the total food requirements of the country. As a consequence, the corresponding demand of water for agriculture would be considerably less than that required for 100% self-sufficiency.

A major reason of adopting food security as a national policy is that the countries have found out that it is more cost effective to import the additional food requirements rather than investing in the additional infrastructures needed for attaining 100% self-sufficiency in food. National security considerations, however, indicate that relying on importations of food requirements should be limited.

Malaysia, for instance, has targeted its food production at about 70% self-sufficiency. Other countries have relied on market forces and the seasonal availability of water resources to determine the level of importations.

There are some countries, however, that have embarked on an export program of food to increase the income of the farmers and thus contribute to an increase in the national economy. Thailand and Vietnam are the two major exporters of rice in Southeast Asia. Needless to say, there is a corresponding increase in the demand of water for agriculture in these countries as well the need for more agricultural lands to support the export program of food.

It is the duty of water professionals to assess the effects of the various modes of food production strategy on water, land, and the environment and its impact on health, poverty, leisure, and other sectors of the national economy. The assessment may then be presented to all stakeholders - the decision-makers, the water users and the general public - for their collective action.

**WATER PRICING STRATEGY**

As a general principle in water resources development and management, the delivery of water services will be provided on the basis of recovery of full costs - operation, maintenance, depreciation, and investment in enhanced services. Pricing of water and water services provides incentives to consumers and all water users to use water carefully, efficiently and safely. It is a very common tool to recover costs, to provide the right incentives to users, and to protect the environment. The polluter pays principle provides a disincentive for the release of polluted wastewater.

While water as an economic good is a universally accepted principle, the manner of cost recovery for the delivery of water services varies not only within each country but also worldwide. In the Philippines, the current practice for cost recovery varies for the different services of water delivered. For hydropower and for urban water supply, services are provided on the basis of recovery of full costs. In the case of rural water
supply and irrigation, only the costs of operation and maintenance are recovered. For flood control and mitigation, the Government bears all costs.

Water pricing is a highly sensitive political issue in many developing countries that have relied on governments to subsidize part if not most of all the costs of water service delivery. Any attempt to change the current practice will meet with vigorous objections from the general public. It will take some time and a massive public awareness program to change behavior in the efficient use of water through the pricing mechanism.

POLITICAL PATRONAGE AT THE PROJECT LEVEL
The programming and planning of water resources development projects is based on among other things, the needs of the country in relation to its available water, land, and socio-economic resources. In the choice of location-specific projects, however, the economic principle of comparative advantage is not always being adhered to. This is where political patronage plays a major role in the choice of projects to be undertaken in politically advantageous areas.

It may well be that the projects chosen in this manner may have lower priorities when based on purely “technical criteria.” It must be realized by the water professionals, however, that the “political criteria” is just as significant as all other criteria and should always be taken into consideration. To make the most out of the realistic situation, the water professionals should exert more efforts on the demand management measures in order for them to be effective under conditions of political patronage.

Water pricing as an instrument for the efficient use of water resources would be difficult to enforce in projects chosen on the basis of political patronage. The political sponsors for such projects would be the first to object to raise prices. This would imply that subsidies would have to be provided for these projects to be viable. It would be to the benefit for all concerned if the subsidies were displayed in a transparent manner. Measures may then be taken to cope up with the undesirable effects of the subsidies.

CONCLUSIONS
This brief note has focused on the food production strategy, the water pricing strategy, and political patronage at the project level, in looking at the political perspective on managing water demand. The effects on managing water demands under the three scenarios have been presented.

The challenge is for water professionals to exert more efforts at changing the behavior of all water users in using water more effectively, efficiently, and in a sustainable manner under a realistic political regime.