

POLICIES FOR IMPROVING WATER GOVERNANCE FOR BETTER LIVELIHOODS – MANAGING WATER FOR GREEN ECONOMY AND GREEN GROWTH – SOUTH ASIAN PERSPECTIVE

By

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There are strong linkages between Integrated Water Resources Management (IWRM) and Green Economy. The Global Water Partnership (GWP), an intergovernmental organization which promotes the concepts of IWRM for coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems. On the other hand, green economy also has overlapping objectives to improve human well-being and to reduce environmental risks and ecological problems. Both concepts i.e. IWRM and Green Economy encompass challenges of common nature, with governance inefficiency and ineffectiveness impairing all challenges to be addressed amicably. The global challenges carry a long list and include:

- **Securing water for people:** One-fifth of the world population is without access to safe drinking water and half of the population is without adequate sanitation. The governance inadequacies and services deficiencies primarily affect the poorest segment of the population of the developing countries.
 - **Securing water for food production:** Population projections indicate that over the next 20 years, food will be required for another 2 to 3 billion people. Water is increasingly seen as a key constraint on food production, on a par with, if not more crucial than, land scarcity. Irrigated agriculture is already responsible for more than 70% of all water withdrawals (more than 90% of all consumptive use of water). Even with an estimated need for an additional 15-20% of irrigation water over the next 25 years - which is probably on the low side – serious conflicts are likely to arise between water for irrigated agriculture and water for other human and ecosystem uses. Difficulties will be exacerbated if individual water-short countries strive for food self-sufficiency rather than achieving food security through trade; by importing food countries can in effect import water from more generously endowed areas (the concept of “virtual water”).
 - **Developing other job creating activities:** All human activities need water and produce waste, but some of them need more water or produce more waste per job than others. This consideration has to be taken into account in economic development strategies, especially in regions with scarce water resources.
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- **Protecting vital ecosystems:** Terrestrial ecosystems in the upstream areas of a basin are important for rainwater infiltration, groundwater recharge and river flow regimes. Aquatic ecosystems produce a range of economic benefits, including such products as timber, fuel-wood and medicinal plants, and they also provide wildlife habitats and spawning grounds. The ecosystems depend on water flows, seasonality and water table fluctuations and have water quality as a fundamental determinant. Land and water resources management must ensure that vital ecosystems are maintained and that adverse effects on other natural resources are considered and where possible ameliorated when development and management decisions are made.
- **Dealing with variability of water in time and space:** Almost all the freshwater available for human use originates from precipitation, which varies immensely over time and space. Most tropical and sub-tropical regions of the world are characterized by huge seasonal and annual variations in rainfall, often compounded by erratic short-term variations. Such variability manifoldly increases the demand for infrastructure development and the need to manage water demand and supply. The challenge in managing variability is clearly greatest in the poorest countries with the least financial and human resources to cope with the problem. The effects of global climate change may add further to this challenge.
- **Managing risks;** Variations in water flows and groundwater recharge, whether of climatic origin or due to land mismanagement, can add to drought and flood events, which can have catastrophic effects in terms of large scale loss of human life and damage to economic, social and environmental systems. Water pollution creates another set of risks, affecting human health, economic development and ecosystem functions.
- **Creating popular awareness and understanding;** Public awareness is needed in order to mobilize effective support for sustainable water management and induce the changes in behaviour and action required to achieve this. Additionally, public awareness and subsequent pressure for action may be vital in fostering the political will to act. The historical development of the environmental “green” movement is an example of how public opinion and pressure has translated into political commitment and action. Time is ripe for a “blue” movement.
- **Forging the political will to act;** In a world of scarce resources – financial as well as natural – political attention and commitment are vital to ensure good decision-making and the necessary investments in the development and management of water resources. Bringing water resources issues to the top of the political agenda is fundamental to the long-term success of sustainable water resources management.

- **Ensuring collaboration across sectors and boundaries;** The traditional sectoral and fragmented approach to water resources management has often led to governing bodies representing conflicting interests. Policy objectives have been set without consideration of the implications for other water users and without consultation across sectoral and institutional boundaries. As a result available financial and physical resources (including water) have not been employed to maximize total social welfare. There is a need to find appropriate ways to co-ordinate policy-making, planning and implementation in an integrated manner across sectoral, institutional and professional boundaries and to take into account the even more complex co-ordination issues arising over the management of international watercourses.

To meet all above challenges, effective water governance is essential. Broadly the governance is the exercise of *economic, political and administrative authority to manage a country's affairs at all levels...it comprises the mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences.* (United Nations Development Programme 2001)

Water governance refers to the range of political, social, economic and administrative systems that are in place to develop and manage water resources, and the delivery of water services, at different levels of society. (Global Water Partnership 2002)

Governance matters a great deal for economic, social and environmental outcomes. Some necessary conditions for good governance are inclusiveness, accountability, participation, transparency, predictability and responsiveness. When the governing system does not fulfill these conditions we talk in terms of *poor governance*. Poor governance leads to increased political and social risk, institutional failure and rigidity and a deterioration in the capacity to cope with shared problems. Of course, governance systems should facilitate action and not create an obstacle to development. Getting the right balance is a source of constant debate and an ongoing process that will be continually changing over time. Social analysts have shown that there is a strong causal relationship between better governance and better development outcomes such as higher per capita incomes, lower infant mortality and higher literacy (Kaufmann et al., 1999). Poverty reduction is enhanced by a stable and just social order founded on clear institutional rules and effective and equitable markets. Effective governance is thus essential to poverty reduction and can help the poor to help themselves. Poor governance is a barrier to development and hurts the poor through both economic and non-economic channels, making them more vulnerable and unable to adapt to changes. As a result, markets will be weak and distorted thus holding back growth and employment opportunities. Structural and institutional reforms are needed to turn poor governance into more effective governance, including measures such as creating accountability in the use of public funds, building national capacity for better policy formulation, implementation, and enforcement mechanisms. It includes converting decision-making and implementation into more inclusive processes where civil society and the private sector have clear roles to play with shared responsibilities on the basis of

public-private partnerships. The division of labour between the different actors and the sharing of responsibilities and balancing power relations are all part of the same process, that of defining the governing system (GWP Technical Committee).

These governing principles than would need to be applied for improving water governance for better livelihoods including managing water for green economy and green growth.

Being representative of GWP-South Asia, I would now concentrate on regional issues emanating from Hindu Kush-Himalaya and drowning in Arabian Sea and Bay of Bengal. In global context, South Asia region has begun to lag behind all other regions both in income and in human development levels. Home to 20% of the world population and projected to grow to 1800 million i.e. 25% in 2015 and 2000 millions in 2025. One assessment puts South Asia as fast emerging as the poorest, sensitive and indeed the most deprived region in the world. The per capita GNP is the lowest than any other region. Over 500 million people survive below poverty line. Its share in global income is only 1.3% and has largest share i.e. 44% of the poorest in the world. 234 million without access to safe water and 934 million without basic sanitation – 327 million people in South Asia live without adequate food with 50% of its children under 5 years of age are malnourished and 85% are under weight. South Asia is far behind in the field of education. Its adults literacy rate of 48% lags behind 55% rate achieved in Sub-Saharan Africa and 98% in East Asia i.e. countries within the basin of HKH (exception is Sri Lanka which is outside the basin). Nearly one-half of the world's illiterate population lives in South Asia. Natural disasters in South Asia kill some 500,000 people annually and affect some 7.2 million people. Being an agrarian society, agriculture suffers most in natural disasters. In spite of substantial investment made in the irrigation development in the last four (4) decades, productivity per unit of water and per unit of land is the lowest. Contribution of one cubic meter of water to the regional GDP is also the lowest and is only half of that of the world average. Region has more than 60% of population involved in agricultural activities and uses more than 90% of the available water in agriculture sector. The installed energy capacity averages less than 300 KW per 1000 people as compared to 2 MW in industrialized countries.

The watershed of HKH can play a pivotal role in the economic development of the region as a whole. Million of hectares of agricultural land between the source and its final outfall can change the regional economic face:

- From poorest to rich
- From food deficient to food surplus
- From energy deficient to energy self sufficient
- From malnourished to well-fed children
- From illiterate to literate population

- From unemployment and under-employment to choice employment
- From infrastructure deficient to adequate hydraulic infrastructure to meet development requirement

Water and Energy Potential

South Asia still has tremendous potentials to achieve food, water and energy secured status, provided it addresses its management and governance issues seriously and in a cooperative manner. Region needs to use water resources for development and benefit sharing rather than resource sharing. The region has over 300,000 MW of hydropower potential whereas it has developed only 9% of its resources. Similarly region's food productivity is one of the lowest in the world per unit of water and per unit of land. Simply doubling its productivity for which all potentials in the world are available, South Asia could largely become a food exporting region. Whereas these development potentials exist, it also carries environmental risks and degradation.

To enhance productivity through wider application of chemical fertilizers would reduce soil quality. Urbanization would face problems of congestion, pollution and poorly provisioned services would affect the productivity and health of all but fall particularly on the urban poor. Seeing the magnitude of the problem and the extent of environmental degradation, South Asia needs to move towards green economy for a higher rate of GDP growth, poverty eradication and more job creation.