

Climate Change Adaptation- Disaster Risk Reduction and Catchment Conservation.

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Source area protection was a key element in ensuring the availability of adequate and sustainable water resources for livelihood needs in ancient times and an integral component in Sri Lanka's ancient hydraulic civilization dating over 2500 years. Gradual encroachment into the hill country catchments due to plantation agriculture and increasing population pressures in catchments of other river basins leading to encroachments and degradation due to deforestation compounded by political compulsions and lack of integrated planning, management and regulation of the natural resources/water sector has exacerbated the consequences resulting in many closed basins due to lack of perennial water flow. Floods, droughts and now landslides are of increasing concern with the impacts of climate change resulting in heavy social and economic costs with the increasing frequency of water related disasters. A single intense rainfall event and rivers are in spate with the heavy runoff carrying loads of silt as reflected in the muddy waters an indicator of increasingly eroded and degraded catchments.

Though integrated catchment management is part of integrated water resources management or IWRM now increasingly accepted by all to overcome the quantity/quality divide as well as increasing competing uses and population and livelihood shifts, our colonial inherited administrative and at most sub sector /sector based initiatives as responses have not been successful. Even in the water sector with a Comprehensive Water Resources Policy in place more than a decade old (albeit yet in limbo) there has been no forward movement on a Comprehensive Water Law and with 51 acts regulating water are in an enforcement log jam overwhelmed by the political dimension leaving the sector to be driven by a set of ideological assumptions and red herrings that merely help sustain the status quo by arousing the public. Unfortunately to date we have still not articulated at least the principles on which water will be governed so that periodic policies for use and management could follow. Poor or lack of enforcement of complementary acts such as the Soil Conservation Act and regular ad hoc land regularization has further compounded the issues. A new Soil Conservation Act is in the offing and likely take some time to say the least but events could far overrun the processes. Water and land governance that had semblance of at least a sector approach till the new millennium is now handled piecemeal both in relation to the political and administrative dimensions making regulation and enforcement take back seat. Technical agencies preoccupied with development have little interest in strengthening the regulatory frameworks or enforcement capacity with the little efforts often preempted by political compulsions. Some event driven issues have however resulted in environmental issues receiving the much needed attention and attempts to control and mitigate pollution are receiving political attention at the highest level. It is also significant to highlight the increasingly important and active role that institutions such as NBRO play with respect to vulnerably mapping and forecasts of landslides far above requirements of their dedicated mandate.

Models of River Basin Organizations (RBO) and especially River Basin Management (RBM) are have been touted as panacea for basin level integrated water management notwithstanding the fact that rivers bisect basins and form the basis of administrative and political delimitation and in many cases social divides that to overcome would seem extremely costly and disruptive especially in a country like Sri Lanka. On the other hand Integrated River Basin Planning (RBP) and related share agreements on allocations/ uses have potential for reducing demand based conflicts of competing uses and users allowing for ecosystem conservation including adequate base flows as well.

An excellent initiative a few years back by the National Water Supply and Drainage Board (NWSDB) on basin level water resources inventory and planning was restricted to some efforts in Uva and did not follow through.

Nevertheless, certain selective RBM principles of management have certain advantages and need consideration for application in any RBP initiative undertaken. Some comprehensive basin studies have been undertaken in a few basins and a more integrated effort to assess and map basin water resources is currently being undertaken under the Climate Improvement Resilience Project (CRIP) of the Ministry of Irrigation and Water Resources where 10 major basins are under study. Hopefully, climate change will help drive much needed policy and institutional changes.

There have been several other initiatives after the integrated water sector efforts of the 1990's failed. Another sector based comprehensive initiative by the land sector in 2014 on the National Policy on Protection and Conservation of Water Sources with participation of other sectors has been formulated and can have major impact if rigorously implemented with the required resources, backstopping and political commitment. Some positive movement is seen in the water sector such as amendments to the Irrigation Ordinance and Flood Protection Act which could reinforce efforts in adaptation and mitigation. Also the drinking water sector have on selected basis (eg Kelani, Gin Ganga) initiated developing water safety plans with donor support an outcome WHO recommendations. This can provide positive input into overall basin water use but synergies will likely come only if coupled with an integrated catchment and basin allocation and management mechanisms.

Climate Change is here to stay and ever reducing short cycles of floods droughts and landslides of increasing intensity have made Sri Lanka a continuing disaster prone country. The human, social and economic costs are unacceptable and are having severe negative impact all round. Frequent disaster events have now overtaken the pace of the planning processes and a war footing mode seems essential in coping and developing community resilience above and beyond the mostly infrastructure based resilience efforts being undertaken in most sectors. Donors too seem to prefer to support the latter rather than the former as progress evaluation is much easier and resources flow into agencies.

Effective management of water resources requires assessment of use and user pressures at an appropriate scale-large enough to take and operationalize all relevant information ,but small enough to ensure that people who live in the area can easily relate to the catchment that may be part of the basin or sub basin. Integrated Catchment Management of at least selective catchments in the first instance seems critical if loss of life, property and livelihoods are to be reduced and safeguarded with communities not having to be constantly moving to and fro from relief camps. With most vulnerable sites identified (NBRO), concerted efforts and resources need to be applied along with communities as partners. Increasingly Corporates are realizing their responsibilities to society and many are now are actively involved in Disaster Risk Reduction (DRR) activities under their CSR commitments many with medium term interventions. Opportunities for public/private initiatives at these local levels seem increasingly possible. While such initiatives go ahead negative environmental behavior in parallel is still taking place. For example in recurring landslide areas such as Aranayake regular heavy logging is still taking place without any concomitant replanting or reforestation in place due to loopholes in administrative rules and regulations that enable such logging to be legitimate. With Commitment to SDG especially considering 6, 13 and 15 it is time to give teeth to the promises made in our National Adaptation Plans (NAP) and more recently on the Nationally Determined Contributions (NDC) required in the Paris Agreement that we signed sooner than later. It may be opportune to focus more on the upstream rather than only the downstream and disaster relief responses as at present.

With increasingly frequent recurring cycles of floods, droughts and landslides not only in Sri Lanka but also in South Asia and elsewhere the humanitarian aspect of disaster response by developed countries and donors are taxed to the limit and signs of relief fatigue are apparent. It's for the policymakers and politicians to realize that humanitarian aid for disasters are drying up and there is need to treat floods, droughts and landslides as a development issue in Sri Lanka and quickly move away from the politically attractive relief disbursements to development initiatives aimed at adaptation and mitigation.