

Agriculture: An alternative vision for addressing water issues

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Water as global concern still continues to remain in the domain of specialists, managers and politicians. It's time to break this centralised control and transfer the decision making arrangement to the local bodies. This decision making process can be implemented only when it is accompanied with the intellectual capacity to view the resource as a Common Property that should service the needs of all without injustice to none. Collective action needs to be the key word with local groups federated together for arriving at a shared vision on the social, environmental and commercial objective of water (in that order) to improve its sustainability. The critical element in such a process of empowerment of the stakeholders is in their ability to fully understand the system in all its intricacy. This could also mean participation in all forms of data gathering, scientific assessment and more importantly decision making on the most appropriate choices on its collective use. This approach has relevance in understanding the Climate Change impact on water resources at local levels for devising strategies on adaptation.

In India dominance of private investments in groundwater irrigation naturally has led to its abuse and the big losers have been the smallest and the voiceless stakeholders. To address this problem collectively NGO's and local institutions have come together to track the local water resources behaviour (daily/seasonal,/annual changes, overall status) and Climate Change Impact at micro (community) level and on a regional basin scale (hydrological Unit). The community manages all the technical tasks as well analysis and decision making related to water use. Such approach makes available local level data near real time with solutions for farm level action. Such approach adopted by APFAMGS/SPACC project have helped to generate free and indisputable information on the seriousness of the groundwater crisis and Climate Change leading to behavioural change and translating into small almost invisible changes at the farm level slowly gathering momentum over time to make real impact both on local and regional scale. Community sees this in their own best interest to support implementation of a local level monitoring system managed collectively under the supervision of the local Institution. Over time the community is able to anticipate risks, forecast short term scenarios that helps them protect their investments in farming as well as help them realise the best economic returns. Most importantly such a community led monitoring system helps brings discipline and efficiency in the use of natural resources (water, land, soil, biomass, etc). More importantly community led surveillance helps in educating the farmers on the science of the system in a fashion that they all understand and help promote the necessary curiosity in anticipating man made as well natural crisis, as well as helps them identify redressable solutions on their own. New norms and priorities emerge through discussions and thus emerges local governance related to community behaviour dealing with natural resource management and improving efficiency and managing wastage.

To ensure rightful access to such knowledge informal Farmer Water Schools (FWS) and Climate Change Schools (CCS) have been designed to demystify the science without diluting it. The strength of these schools is that it looks at training as a process towards empowering the learners with new pertinent knowledge and related skills to understand the natural system in its totality and its application in the context of socio-economic realities.

The natural resource boundaries such as watershed, drainage units, emerged as critical units of development and all communities within a natural unit federated together to form strong institutions for promoting collective thinking and developing consensus on co-operative action.

Institutions ensure community overcome selfish interests and work towards common approach of managing the natural resources efficiently adopting common perspective

Access to scientific knowledge helps the community to understand the system and the causative factors of any crisis and the linked economies to the resource. The schools help consolidate understanding on the Common Property Resources (CPR) and the need for collective action. New Learning's help address issues related to Water Sharing, Droughts, Climate Change Impact in a logical fashion that is based on several steps beginning with detailed analysis of community gathered data, apply the data in the evaluation of the natural resource balance, followed by systematic assessment of the nature of the crisis. The greatest contribution of such schools is the equal participation of women who over time got involved in all decision making processes related to natural resource use

Community institutions having all the elements of liberal democracy, are engaged to address the concerns of the most vulnerable sections through local governance which also caters to needs of the bulk users without bypassing the wants of the majority. Institutions use new data, information, knowledge generated locally to understand the system in the neighbourhood as well as regional context and think of management plans that integrated well with upstream and downstream concerns. Institutions create the social conditions for the community to improve its sustainability of natural resources. These local institutions and their federations accommodate the struggles/sufferings/concerns of the ordinary people in their endeavour to produce food for themselves and the nation.

Given the range of natural resource management issues globally it is pertinent to examine the opportunity of directly involving the affected groups in the problem solving process. Most importantly such an approach has to ensure access to knowledge and concepts of the science of the related subjects to the stakeholders in a simple demystified form. Full knowledge of the problem ensures better understanding of all the linked issues thus triggering behavioural change. Creation of a suitable forum/institution for coming together of like minded affected people will help consolidate the concerns of the various stakeholders. Such institutions have to emerge as agents of change as well as emerge as pressure group for recommending appropriate actions/follow-up to the governments/policy planners.