



News from IEI's Asian Regional Initiative in Bangalore (India) – December 2017

At IEI-Asia, we have been researching ways through which improved energy services can be derived in regions where they are lacking. In some cases, we have undertaken field demonstration – directly, or through or interaction with those involved. As with other activities, for energy generation to be sustainable, resources have to be used efficiently. One set of options that we have explored extensively is the meeting of energy needs from the wastes of economically-viable activities in farming regions.

However, there are hurdles in the path to sustainable such solutions - most importantly, the availability/accessibility of adequate supplies of water -- a scarce unique natural resource. Obviously essential for the survival of humans, animals and plants, water is also needed for energy generation and other productive purposes; there is no alternative for this precious natural resource, so that shortages and worse - dwindling supply, can cripple activities.

But solutions for bolstering water-supply do exist: rejuvenating abandoned/dried deep-wells (discussed in the September'17 newsletter), water-accumulation in ponds dug for the purpose, constructing contour-bunds for arresting run-off, reviving (through de-silting/dredging) ponds/lakes, and so on. These directly enable water-access and also improve groundwater levels.

In this newsletter, we look at **examples of community endeavour for the development and/or re-access of jointly-owned wells and ponds/lakes**, along with related activities (e.g. tree-planting, crop-diversification). Associations of people – established non-governmental organizations and other groups of concerned people -- have been able to successfully accomplish these; their efforts are noteworthy for their contribution to enabling continued access to water.

Jointly-owned wells: For small landowners/farmers who cannot independently afford the cost of a drilling a well, a jointly-owned well is a viable option. For example, in Dhule district in the state of Maharashtra, groups of families are involved in such creation and sharing of wells (Figure 1, courtesy **Deshbandhu and Manju Gupta Foundation**). While located (for best accessibility) on the land of one family, the five-six joint owners treat the well as a shared asset. Formal/legal agreements are signed between representatives of each family in the group; water rights are equal, or proportional to the amounts of land watered, and the crops cultivated are usually similar. (If not new, an existing well could be deepened or else a dry-well could be rejuvenated). The costs are met through a jointly-taken loan. The increased earning from the resulting harvests enables repayment of its share of the loan by each family.



Rejuvenating lakes/tanks: Water bodies that existed in the past have run low due to the accumulation of silt/waste in them and/or the drying of contributing streams. In such cases, joint effort by the villagers through manual effort (often through *shram dhan* or the contribution of free labour) and the use of earth-moving equipment, have been successful in clearing and filling the lakes/tanks. For example, the lake at Sulaga (near Yellur), in Belagavi district of Karnataka state was cleared (Figure 2, courtesy **Pyas Foundation**) and is now gradually filling up. In addition to the work for the lake, there are other contributory efforts such as tree-planting.



There are state- as well as non-governmental options for funding options such activities. In various states of India, there are governmental budget-funded grants and subsidies for facilitating water access for irrigation. For example, the Karnataka State government has the *Krishi Bhagya* (farm welfare) scheme for farmers to develop ponds and also to install micro-irrigation (drip and sprinkler) facilities. Non-governmental organizations also provide loans/grants, depending on their sources of funding.

Our next newsletter (March '18) will look at community efforts for reviving water access in hilly regions.