

An approach better than “Marketing” for water in Sri Lanka,

The Government has once more announced a new Draft National Water Resources Management Policy. The draft originally produced in 2000 was named “National Water Resources Policy and Institutional Arrangements”. Studying the latest draft published in news papers. It is clear that this is a renewed effort to approve a policy in Parliament for privatization and marketing of water as demanded by the WB, IMF, ADB and other international water marketers. There is nothing new.

The changed name is obviously to hide the real intension. This is nothing other than part of the global push by water marketers to convert water into a “commodity”. It is based on the realization by the global businesses that water could easily be the biggest market in the world (estimated to be US \$ 1 trillion). Monsanto in 1999 decided that they should start water businesses since there is a possibility of a global crisis in water in the future and since water was essential for life of all, it could be the biggest and most profit making business. The World Water Commission, initiated and headed by the WB in its report “Water for the 21st Century” stated that “full cost recovery” should be the single most important principle for conservation of water. Water marketing and pricing of water for full cost recovery has been pushed in Sri Lanka by the above agents from early 1980s. The first effort to charge for water in Sri Lanka was in mid 1980s when an attempt was made to introduce a tax on irrigation, in the name of a “Water Tax”. Later the name was changed to “Maintenance and Management charges”

On each of the occasions when legislation was attempted by all governments since then (1980s) there was such public protest that all political parties immediately responded saying that they did not have any intention of water marketing of any kind and that they were opposed to privatization of water. The most recent occasion when this was stated was the “Mahinda Chinthana”.

Addressing a public gathering on the occasion of opening a large water supply scheme in Kandy in Early January 2007, President Mahinda Rajapakse made it very clear that the Government has no intension or plans at all of selling water.

In spite of such denial and such public resistance the policy is back on the agenda, showing that the international water businesses are not willing to give up. The drafts are always prepared by the same agencies such as the Water Secretariat, International Water Management Institute (IWMI) and extremely costly consultants recommended by the international financial institutions designing plans for water marketing globally. The Water Policy drafts formulated since 2000 have been adjusted so many times merely to change words in the document without changing the contents and the implications. These changes are to deceive the people hiding the real intensions of the policy, which is to convert all “water into a commodity” and to hide behind the words “water resources management to prevent water problems and a water crisis” in the future.

In order to avoid such deception it would be useful to look at not only the tremendous experiences in history where Sri Lanka has made unparalleled achievements in ecological

management of water and irrigation. “Sustenance of life” has been the guiding principle and goal and making private profit through any form of selling of water was considered totally unethical and immoral. It was these moral principles that enabled such tremendously valuable technological innovations. “Water was for all life and therefore water was not for profit and sale”

While we make full use of these valuable experiences in history it is also important to see how we could develop approaches to improve our water situation and to solve the problems that have arisen and are likely to arise in the future, under the present conditions.

What is attempted below is to give some ideas about how water could be improved in Sri Lanka without resorting to water marketing. It is first necessary to have a clear understanding of the most important needs that we have in Sri Lanka in relation to the handling and management of water.

Firstly, there is no overall shortage of water in Sri Lanka. Looking at water mapping that has been done for different regions of the world, it is seen that even 25 years from now Sri Lanka will be a country with sufficient water. There are two rainy seasons in almost all parts of the country and even in the areas identified as dry zone the annual rainfall is quite considerable.

However, what we know is that Sri Lanka suffers floods and now more frequent earth slips, during the rainy season and also droughts during the season of no rain in some parts of the country. Damage and crop losses due to lack of water in paddy growing areas is not rare. There are times when fairly serious droughts occur in some regions such as the droughts that affected some time ago in Hambantota. Although the overall annual rainfall has not changed in Sri Lanka for a very long period, it is useful to study if these alternate periods of floods, earth slips and droughts are becoming more frequent in the recent times.

The simple solution in this case is to increase the retention of water that is obtained during the rainy periods to be used during the non rainy periods. How best could this be done? The approach adopted in history was to construct reservoirs and to develop canals for distribution of water thus retained, to other areas. Therefore most people and most planners have generally looked at ways in which more reservoirs and more diversion schemes could be developed. Also, in the early days when we had much more of forest cover it played a very useful role in controlling and retaining water, reducing erosion and softening the aggressive rain fall which increases soil erosion.

When the World Bank and the ADB got involved in the processes of planning and economic decision making, what they emphasized was that the infrastructure and the delivery of water was costly, their improvement and maintenance was expensive and therefore the users of such water should pay for these costs. There was another intension in this approach, which was clear from their statements. This was to encourage farmers to shift away from growing low value crops to high value crops.

What are our genuine water needs?

This article is an attempt to identify the genuine water needs, the real problems that we need to solve in relation to water and the type of improvements that we need in the way we handle water. In summary, water plays a major role in sustaining life, life of all living beings, human, animal and plants. Nature, throughout the history of the earth has provided the requirements of all life forms. This was possible since nature had the capacity of regenerating itself.

What we need to do is essentially to restore this capacity of nature to regenerate itself to the maximum possible. How does restoration of the regenerative capacity of nature solve the current needs of the people?

How can this be done in today's conditions? What is the role that water plays and should play in this task?

These are some of the questions that we need to answer.

Today's water needs can also be defined differently.

For instance the present National Water Resources Management Policy talks of the new, emerging needs as allocating water between the competing uses, such as water for irrigation and agriculture, water for industrial needs, urban needs, water for electricity generation and also for recreational needs. Water for ecological and environmental needs is also included in this list, but it comes much lower in the list of priorities. In designing allocation of water it is also said that water in addition to being a human need and having a social value it is now said to have an "economic value". Water thus becomes an economic good. Thus allocation of water should take into consideration the economic efficiency of water use. Thus there is a new competition between ecological needs and economic needs. The big emphasis in the current policy proposal is about allocation of the existing water between these needs and not about improving the quality, quantity and availability of water, looking at "water as a resource" and not at water as a nature's contribution to survival of life. What is important to recognize is that this not only leads to the above conflict of interest, but it also leads to a much more important conflict between the interests and needs of different economic and social classes.

More water being allocated for uses with higher economic value would naturally take more water for those who use water for profit making, while allocating more water for ecological needs would be a way of allocating water more for the sustenance of the lower economic classes or the poorer classes of society. This is because the poorer classes of society in today's conditions will have to depend more on what nature could contribute to their sustenance. Reviving the regenerative capacity of nature is definitely a way of increasing nature's free contribution to the survival needs of those who can not pay in money to meet their food needs, nutritional needs, drinking water needs, health needs and their livelihood needs.

There is an even more important consideration in looking at ways of improving the quantity and quality of water in the country and solving the current and future problems we face in relation to water. The contribution that the poor ordinary rural people can make towards improving water in all its aspects is tremendously higher than any contribution that could be made by foreign or local capital as suggested in the present policy proposals in Sri Lanka and globally.

Let us look at some of the natural advantages that we have in an ecological approach to improvement of water and also at the role that water plays in improving ecology in the country and the ecological contribution to the improvement of lives of the people, the poor particularly and other forms of life.

Natural advantages in Sri Lanka in ecological improvement of water

Sri Lanka and many other tropical countries have good sunlight throughout the year. Sunlight is the only source of free energy (in a situation where energy is becoming an expensive item). It is trees that can absorb sun's energy and convert it to food for trees, animals and humans. In a situation where not only the trees, and animals, but also the poor people are becoming increasingly unable to pay for their food, nutrition and health, it is becoming increasingly important for the poor people to see how they could maximize this source of food and other needs. This is possible by increasing trees to the maximum possible. Having more trees becomes important not only because they can give more food, nutrition and health. They can also give more fresh air since fresh air too is becoming scares (absorbing Carbon di oxide in the environment, which has become a serious danger causing climate change) Having more trees plays an extremely important role in relation to the overall improvement of the availability of water. Forest cover reduces the aggressiveness of rainfall, the speed at which water falls on the soil, reducing erosion of soil. Prevention of soil erosion is seen as an essential aspect of water improvement. Top soil covered with leaves and organic matter makes the soil capable of absorbing more water into the soil and retaining water in the soil. Water thus absorbed and retained in the soil makes water more available, lets out water gradually into the streams and rivers, making water available throughout the year. This reduces the drought losses and the damage caused by floods, silting of water reservoirs, canals and rivers. It also has the possibility of reducing earth slips which are becoming more and more frequent and destructive.

More trees growing giving food, nutrition and other benefits will also make a tremendously valuable contribution in the process of dying and decay. If we reduce and stop the destruction of the capacity of soil and other microbes and earth worms to contribute to this process of decay and digestion, this is the cheapest and the most efficient way of making the soil fertile. This is the cycle that sustains the capacity of nature and the earth to regenerate it self. It is easy to understand that Sri Lanka's natural setting provided and still provides tremendous advantages in utilizing this nature's process of sustaining life.

It can be easily shown that whatever water problems and most of the problems of food, hunger, malnutrition, ill health and poverty, lack of livelihoods are results largely of the process of destruction of this nature's way of providing for life and of sustaining life.

Error in the concept of “non revenue water”

In the present policy proposals for Market led (or demand led water management all the above functions of water are considered to be wastage of water. Even though the policies are not yet legally adopted, for many years (from even before 2000) guided by the ADB and financed by them, certain plans have been implemented where water that does not directly generate revenue has been considered “waste water”. Under the Water Supply and Drainage Board a project has been implemented named “reducing non revenue water project”. This project and plans implemented under this scheme, has been based on the consideration that all water delivered with out cost recovery is considered “non revenue water” or waste water. According to this definition it is said that 52 % of the water in Colombo city is “wasted”. Accordingly almost all public water taps in cities such as Colombo and Negambo have been already closed down. Thus the poor people who can not pay for pipe borne water in their homes have been already deprived of their essential water requirements.

The concept of non revenue water has much broader and much more serious implications. It is in the name of reducing such non revenue or “waste water” that in many places a process of cementing water canals has been started. Conversion of water in all parts of the country from natural water sources into pipe borne water is being carried out under the island wide scheme called “community water supply and sanitation projects”. The objective claimed appears to be noble, which is to provide safe drinking water and sanitation to all people in the country. This is enthusiastically accepted by most rural and semi urban communities for very valid reasons. It is of course very nice to have less contaminated water in the homes as pipe borne water.

The present projects are subsidized by the WB with 80% of the cost of these pipe water schemes being funded by the WB with an out right grant. However, there is a serious danger of the beneficiary people being asked to pay a price at the beginning as their 20% contribution and subsequently for their maintenance. The Community based organizations are asked to take responsibility for maintenance, with some charges already levied either by the CBOs or by the Pradeshiya Sabhas who have taken charge of maintaining. But there is a bigger danger of private water traders being invited to take charge of these water services in the near future. (In fact the Water Services Reform Bill which was brought in during the last UNP regime and rejected by courts since it did not have approval from the Provincial Councils, had plans of privatizing such water services both in urban as well as in rural areas)

If the overall intention is to have full cost recovery and reduce non revenue water, this charging for water services is bound to happen at some point.

In fact it is very clear that all the above functions of water working in nature and the nature's way of enhancing water will take place only with water free in nature and therefore what is necessary is to maximize "non revenue water" or water in nature and not reduce it.

How can we do this?

How do we maximize water retained in its natural form? The way to do this is not by converting water into a "marketed commodity", not by allowing capital to take control over the management and allocation of water. We have to make maximum use of the possibilities that nature provides us.

In the hill country:

Massive deforestation in the hill country, for tea plantations, has resulted in over 150 years of continuous erosion, which may be described as the beginning of the destruction of nature's way of water management. Forest cover reduces the aggressiveness of rainfall and it increases the capacity of soil to absorb and retain water. Erosion resulted in floods and also increased the rapid loss of water that resulted in droughts shortly after the end of the rainy seasons. This was also the beginning of the loss of regenerative ability of the top soil. Another process of destruction of the regenerative ability began with the introduction of the mono-crop tea covering almost the entire hill country. Can we think of restoring the hill country's contribution to the ecological management of water? Privatization of the tea plantations have not resulted in any worthwhile improvement in the needed soil conservation approaches, although soil conservation is said to be the most needed approach in reducing worst form of environmental destruction in the country. Private companies looking for short term profits are not likely to invest in such activity.

A proper assessment of the land in the hill country that is left uncultivated due to land being unproductive should be made. The potential improvement not only in soil conservation, but also in the overall productivity by introducing small scale ecological agriculture approaches such as agro-forestry should be made. Converting unproductive tea plantations into more damaging forms of monocultures such as potato farming would worsen the situation.

Diversified ecological agriculture, on relatively small plots, to achieve results as close to agro forests as possible, could give much better results, not only in terms of soil conservation, but also in increasing food availability and nutrition. Non chemical farming in the hill country is an essential part of reducing the damage caused by the heavy chemical inputs, which pollutes the water throughout the country. The best agents for brining about this massive transformation are the presently under paid plantation workers and the impoverished rural farmers in the hill country villages.

The possibility of giving ownership of land to such people, the plantation workers and the hill country villagers, with proper guidance and assistance in utilizing such ecological agriculture should be seriously considered. Such a process will have tremendous

additional social, economic and ecological benefits. With the present trend of the plantation economy becoming weak, unable to give a decent living wage and working conditions to the plantation population, a gradual process of transforming plantation agriculture into such diversified ecological agriculture requires serious consideration. The direct benefits to such people in terms of improving their social status, food and nutrition, economy and livelihoods should obtain the highest priority while the overall benefits to the economy of the country and ecological improvement should not obtain less importance. There are other important considerations such as the use of unproductive land for production of green energy (using dendro), potential for combining animal husbandry, improvement in health from improvement in the quality of food and water that should obtain attention. Such an approach also has the potential to reduce the emerging problems in the plantations such as growing unemployment, generation of attractive livelihood opportunities for the large and increasing number of plantation youth who are not absorbed into the present plantation industry.

There is need for proper scientific research on the potential for converting land in the hill country into such ecological agriculture and the diverse benefits of such a transformation. What is relevant for the purpose of this article is to see the benefits of such an approach in the overall improvement in water, its quality and quantitative aspects. Such research should look into the availability of presently uncultivated land, possibilities of converting such land into relatively small scale land holdings to be given to plantation families and rural villagers, potential improvement in the overall productivity, how such an approach would enhance the quality and quantity of water and the overall health benefits. Providing the plantation people with a more dignified life with possibilities of self improvement is also a concern that should be given priority.

Providing educational opportunities and practical training to the plantation and rural youth to be effective agents of such a transformation would be a tremendous contribution to their need to have attractive livelihoods. Initiative institutions of higher education, such as universities, that specialize on such a field is a worthwhile idea, considering the fact that there is a serious discrepancy in such opportunities for plantation youth.

In other rural agricultural areas:

While deforestation and introduction of mono crop tea plantations in the hill country was the starting point in the destruction of nature's regenerative ability island wide, the other plantation monocultures added to the damage. Major damage was done with the introduction of chemical input dependent agriculture in all parts of the country, which came largely with the "green revolution" in mid 1960s. It started with the conversion of paddy into new high yielding varieties, requiring chemical fertilizers, pesticides and weedicides. Crop diversity that existed with traditional agriculture that provided greater food security and food sovereignty was gradually replaced with market oriented mono cropping. All these factors contributed to the loss of the natural regenerative capacity of the soil and of nature. Large and inconsiderate clearing of forest cover to expand irrigated agricultural settlements for purposes of self sufficiency in rice, was another factor that contributed to the loss of forest cover and loss of diversity.

What is relevant for the issue discussed is the massive damage done to the loss of soil fertility and the weakening of the ability of soil to absorb and retain water and the loss of quality of water due to chemical pollution. How do we bring back these qualities? How do we improve the ability of soil to absorb and retain water? How do we reduce erosion and destruction of top soil? And finally how do we solve the massive problem of chemical contamination of water caused by what is promoted as modern, scientific agriculture? Unless we solve this problem of massive chemical contamination of water through such external input dependent agriculture the efforts to provide real “safe drinking water” to all can not be met as proposed by the presently implemented process of converting natural water sources into pipe borne water supply systems, alone.

Here again the large number of small scale farmers in rural areas have much better capacity and possibilities of transforming their agriculture into ecological agriculture, with much more diversity of crops reaching as close as possible to the agro forests model, with a proper combination of large trees and small plants, with short term food crops and multi-year crops, with a combination of crops with food, nutritional and medicinal value. Restoration of the natural recycling of organic matter, the quality of the soil will improve and the need for external fertilizers, pesticides and weedicides could be largely eliminated.

This form of small scale home gardening and ecological paddy farming, using methods such as integrated pest management, the System of Rice Intensification (SRI system) and Nava Kekulama have been applied with considerable success, reducing the need for chemical fertilizers, eliminating the use of pesticides and weedicides and considerable reduction of the need for water. Use of traditional varieties of paddy has given good yields with considerable reduction in cost of production. One very positive advantage in these applications is that they reduce chemical pollution of soil, water, food and environment. Destruction of the microbial activity in soil caused by chemical inputs is one of the major reasons for loss of soil fertility, which also contributes to the reduction of water absorption and retention

Such improvement in the ability of soil to absorb and retain water is one of the best ways in which the drought losses that occur between the rainy seasons could be minimized and the replenishment of water in the wells, the small and large reservoirs could be improved.

With the expansion of villages, opening up of new villages and also large scale expansion of agricultural settlements, the overall forest cover has been reducing. Therefore it is necessary to think of new approaches to recover the overall forest cover and its many advantages, mentioned already. This approach can be to get the forests to encroach into the villages and the human settlements, instead of the villages encroaching into the forests. Diversified ecological home gardening and agro forestry if carried out in clusters of home gardens and villages covering considerable regions is a way of having the effect of forests. These forms of agro ecology can have much bigger overall productivity and efficiency, than any monoculture, dependent on external chemical inputs. Our concern in

this article is contribution to the improvement of water, qualitatively and quantitatively with improved absorption and retention and reduction of erosion and loss of top soil.

Need to research on the potential contribution of ecological agriculture in Sri Lanka

Small scale ecological agriculture is a growing trend in Sri Lanka and in other parts of the world. Investigations made recently by some organizations such as MONAR have shown that this is becoming an attractive approach among many organizations working with rural communities. It's potential in reducing poverty, hunger, and in solving many other problems have not been studied seriously, since the main stream economic thinking and planning have all looked at market led approaches in all these issues. In South Asia and other regions of the third world, where large numbers of the poor are the small and marginal farmers, small scale ecological agriculture is expanding as a means of ensuring their survival, under the growing threat of displacement under globalization. It has the possibility of meeting the challenges of food sovereignty and ecological destruction, even in meeting some of the problems such as climate change.

This approach requires considerable changes in the approach to agriculture and land use. It also has implications on the policies towards land ownership and also in the approaches to processing and marketing, methods of distribution of surplus so that such ecological agriculture will bring results and benefits to the small scale producers and the low income earning consumers.

We will not go into discussing these aspects, due to the limited issue that we are dealing with in this article. What is important in this approach is that it intends to make use of the full potential contribution that the large numbers of people could make in utilizing the nature's contribution towards improving water. The real purpose of water in nature is to meet the survival needs of human and other forms of life and in this approach maximizing the contribution of water to such sustenance of life in all its forms is ensured, before water is diverted for other purposes for profit making.

Since the people, particularly the people who work on land play the most important role in improving water; they will have the right to decide how water should be utilized. If one wants to think about "cost recovery" they will be the people who will have the right to recover costs. This is an approach that is radically different from the proposition to allow cost recovery by those who only deliver water (as done by private water traders and water companies who will be even using infrastructure built by the Governments making use of loans obtained in the name of the people, which the people will have to pay back any way)

By Sarath Fernando
Moderator
MONLAR