

# Abundance in Monsoon and Scarcity in Dry Season— Major Water Management Challenge

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tion, first thing we want is not a repetition of the past failure. This time we want to succeed. And the ball is in National Water Management Plan's court. They have to ensure the maximum. The National Water Management Plan, this WARPO, they will have to ensure the absolute unobstructed free participation of all agencies concerned. They should give them the freedom, to do, or to say, to place whatever they wish to do. It should be debated and there should be a consensus document. So that is the first goal.

**Mahfuz Anam** : We have had in the past problems of two types. One is in the policy formulating stage people were not participating which you seem to have solved. But the other side of the coin is that after a beautiful policy is made it is not implemented. Have you solved the implementation problem?

**Dr. ATM Shamsul Huda** : One reason is people will have to think that it is their product. Previously possibly that was lacking. There was no sense of belonging that I share what they are doing. That we are trying to cover.

Secondly there was also no popular support on two fronts. One at the policy makers level, there was no unanimity. Other was that the people did not know. We didn't care to talk about things with the people. That shortcoming has also been taken care off. This participation thing is a new element. That make us believe that this time this exercise will be successful.

Secondly, our attitude over the years has considerably changed. Now previously we thought, even at government level, that agriculture was the only way to go. It was totally 100 per cent agriculture focused. But now I think we have learnt a lot. There are lots of dialogue, seminars and other information coming to all concerned. While agriculture should be the primary concern, but, there are other concerns like environment, navigation, drinking water, all these. I think all these awareness will help.

Finally about the vision. The institutions are very important. This National Water Policy requires 53 follow-up actions. Against each paragraph we have identified what the follow-up actions are.

**Mahfuz Anam** : Is there any time frame?

**Dr. ATM Shamsul Huda** : No. There is no time frame. But we want to set our own house in order which means the Ministry of Water Resources. In the meantime the cabinet has already approved the revised Act of the BWDB, because the functions of the BWDB have been slashed drastically. We are now sharing activities.

Previously the Water Development Board was the dominant organisation but now many of these functions are either privatised or given to local government. So, the Act has to be changed. And another function has been given over to WARPO. Previously Water Board was responsible for macro-level planning, micro-level planning, big projects, medium projects, everything. It was "the organisation" in the water sector but now has been slashed. Part of it taken over by WARPO, part of it by LGED and part privatised. So we need to change the Act. That we have done.

We are changing the Act of WARPO to meet the criticism that people should not think that WARPO is a baby of the Water Ministry. We want to make it inter-agency and multi-sectoral. So in the Water Board's Board of Directors, there would be people from all the relevant agencies. Previously it was dominated by the Water Ministry. So we have

to change that Act and that is also ready and may be in another 15 to 20 days time it will go to the cabinet for approval.

We have changed the staffing and other things also, both of WARPO and BWDB. The Water Board had a strength of 18032 people, we have reduced it to 8668, just 50 per cent less. But nobody has been retrenched. It is down sizing of organisation. We have done that and now we have to take up 48 other things related to future vision. We will have to make some legislation. I will give you just one example and that is preserving the wetlands. In the Dhaka city all these depressions are being filled up for real state development.

The issue of allocation of water is very important for which we had long debate in National Water Policy. Responsibility of the critical zones during the dry seasons have been given to local government. If there is a very serious crisis of water in certain locality the upazila parishad will take care of it according to the formulation where we have put drinking water as first priority.

**Mahfuz Anam** : In the new order of things, I think WARPO is going to become a very important and vital organisation. So may I ask Dr. Khan to give his vision and in a very short manner. Just give us a direction of the future.

**Tauhidul A Khan** : In one sentence, we will make a balanced, best and optimal use of the water resources available to us for the benefit of all water using sectors.

And we will strictly follow the principles from now on -- "User based, polluter based".

Coming to Mr. Rafiqul Zaman's queries, we have established a contact group with two representatives of higher level from all the agencies who are somehow involved with the water sector. There are about 19 or 21 agencies. And we are in constant touch with them. Whatever we are doing, we are keeping them informed and we are bringing them, we are debating everything. So we are not leaving them aside.

Dr. Rashid Faruque has said that total flood control in this country is neither possible nor desirable and he added that this is what we have learnt from the FAP. No! We had learnt it quite early. It was in the government document "UNDP-Bangladesh Flood Policy Study" that we the Bangladeshis have come to a decision that total control of flood is neither feasible nor desirable.

Now about living with the floods is a debatable item. Lot of people are not in total agreement to live with the floods. Because with economic development more and more things are becoming vulnerable to floods. We must do something for certain degree of protection against the flood damages. I am not talking about total flood control. What I am talking about is controlling flood.

Questions have been asked about how to take the water from the rivers? What we plan to do is create infrastructural facilities to take the water to the water deficit areas or take the water where the ground water is not in an usable condition in terms of quality aspects. That would need certain major investment. We are right now using water mostly by extracting ground water through shallow tubewells, deep tubewells, etc., etc. The initial investment cost is less compared to surface water but if we consider it over a period of 30 or 40 years the running, operation and maintenance cost will definitely be higher from those of the surface water projects.

The present available surface water in the rivers would be sufficient to meet the reasonable demands for the present time. But in the future demands would

definitely increase and at that time the present available amount will not be sufficient.

So we need augmentation of the surface water resource. There may be two ways of augmentation. One, we have augmentation for which the solution lies outside our country.

As for the issue of conservation inside the country, rainwater harvesting is the answer. Rain water harvesting is not a new concept in this country. In the south, you see hundreds and thousands of ponds because those areas are saline affected and people conserve the water in the ponds. There are other ways and LGED is constructing rubber dams.

**Mahfuz Anam** : Do you think WARPO is going to take some special steps for this rain water conservation?

**Mr. Touhidul A Khan** : Definitely. But I am telling you the fact that it does not have a very bright prospect in our country.

The terrain is absolutely flat. Look at the total number of people in our country. Their demand for agriculture purpose is huge. This flat country can't hold that water. Whatever we do,

rainwater harvesting is particularly for domestic use and local use. But for that we will have to use all the natural depressions, all the ponds, streams, canals, etc.

So, for the conservation of rain-water in the natural depressions in our country we will have to take adequate measures so that the water is not lost through seepage and there should be regulatory use.

**Mahfuz Anam** : I request Dr. Zahirul Karim of the BARC to give us his vision.

**Dr. Zahirul Karim** : I shall make two different statements because I was tempted to tell about ground water while you were concluding.

The MPO report long before put the debate on groundwater recharge and the estimate. And it has been several times in the table with different consultancy reports, but with no new data.

Somebody has cooked in one way and somebody in the other. Now the debate would remain and this would be very unfortunate for the agriculture sector and the rural water supply because the groundwater will remain as the engine for both.

And the debate must end.

The difficulty we find is that the MPO report of early 80s heavily depend on assumptions and scenarios but not on the actual measurements or on actual data.

But this is the time that we have to come to a conclusion with the recharge figure and drawing data from the Water Development Board because they have got it.

The WDB has got many wells where they have measured data and we have those in our computer and WARPO also has them. So we have data that could be now refined and there is wealth of data. This should be done through a study which is very important as a national document.

As for the arsenic, the plan does not take up arsenic and the limit set for arsenic in the irrigation water is considerably large.

Therefore arsenic for public health creates lot of problems and it is in the shallow aquifer. According to the data available to us, arsenic doesn't pose any threat to the expansion from the deeper aquifer on the

agriculture. But I don't rule out that arsenic may be a threat. What we would like to suggest is that there should be much more monitoring, threshold level should be defined. This is a very important task.

The urgency is that we have to increase productivity per unit of water. Because agriculture being the major user and this could be done in a number of ways.

Our future direction should be that we do not put all the water for rice only. We have to restructure based on the land and the crop economy. There should be lot of motivational and professional activities because within the existing area of rice we can double the rice production through the technologies and management opportunities.

The technologies exist and the only thing is that the yield gap situation must be minimised.

**Mahfuz Anam** : With the current level of irrigation you have technology which can double the rice production if we can make efficient use of water?

**Dr. Zahirul Karim** : It is not only water technology. We have a package of technologies. Let me give you one example. In case of

modern rice, the average national yield is 2.86 ton, but you can take the demonstration that on the farmer's field with a better management it's over four tons.

Mr. Rashid Faruque's point on West Bengal agriculture that he has made in an illustration a few days back said that the productivity there is increasing and it is not because of panchayat, it is because of more information available and practised at the farm at the grassroots level. It is not with new technology because technology dimension between here and West Bengal is not different. The potential is there and this could be done.

I would argue on one point about improved distribution system because we cannot allow flat irrigation everywhere and when the water crisis is there. We should think that water is scarce. The distribution should be the answer. We should start what is the right distribution system and invest on that.

My last point is on grassroots level implementation. I fully endorse this view because in the past we had several committees at thana and district and from the Council we have a report of few thanas. There are four committees in existence but members do not know which committee is sitting where. I fully agree that until the local level, grassroots level implementation committee works and the participation of the local public representatives is ensured, this will not bring any result nor transfer the benefit to the end-user. This is a long way that we have to work for.

**Malcom Wallace** : Just to reassure the people that they will never die of groundwater issue. WARPO will be publishing a paper in the next few weeks which will be widely circulated and which will set out the best estimate they are able to prepare on ground water resources. The paper will be debated and it is a fundamental building block to start preparing the plan from. I will also just note for reader's interest that I think we did mention in the beginning that over the next few months WARPO will be producing a series of topic papers covering some of the basic, setting issues, looking at the range of options and finally looking at strategic alternatives.

These papers will be going into the public domain. They will be available on the WARPO web site. They will be widely circulated and there will be discussion forum set up on the web site and we would encourage any of our readers to join in that debate and we will certainly be taking heed of the comments and feedback that we get.

Coming back to your question of vision. From my perspective it's the vision for a plan that indeed does have consensus and is implemented. Unless both of those were achieved then in some measure we would have failed. We need a plan that reasonably and over a period of time would remove water as a constraint in this country to social and economic growth.

We want a plan that provides a balanced field of environment and fundamental one. If we were sitting round this table in 10 years time and we look back and they say did you take a right decision in the plan and I hope the answer for that would be 'yes'.

**Dr. Faruque** : To the question whether we are in crisis or not, I would say for scarcity conditions we are not at crisis at this point. But on flood conditions we can be in crisis. As it was in last year. Under Dr Shamsul Huda's leadership a lot of initiatives have been taken as he outlined. And those are very positive beginnings. But I anticipate some roadblocks. Some of the roadblocks are actually inherent

in our system. Making a good plan is just a right beginning but implementation needs some institution. Again it is reassuring to hear the WARPO's Director General. He also points out his problems and I still feel unsure about how WARPO will be able to take that lead which is needed to have a multi-sectoral approach.

In our country no organisation has succeeded in taking multi-sectoral approach.

The second thing that concerns me is this plan itself. Hopefully, Malcom keeps assuring us and I am still confident, that when the plan is done, the plan will be something to show what are the options for the resource management for each hydrological zone. If the plan is very clear and indicates what kind of investments are needed and those investments are properly evaluated on the basis of cost-effectiveness, then we are in good shape. Then I think even this flood condition crisis can be avoided, avoided to the extent it is feasible.

So, I look at it with some optimism but I still like to caution that there are possible roadblocks. And we have to keep trying what we can do.

**Mahfuz Anam** : Before closing I would like to say that one dimension to all our national problems is time. Unfortunately at the end of the 20th century with the population that we have, with the given land area in which we live, I think we don't have much time. We have to solve a lot of problems and we have to solve them in a hurry.

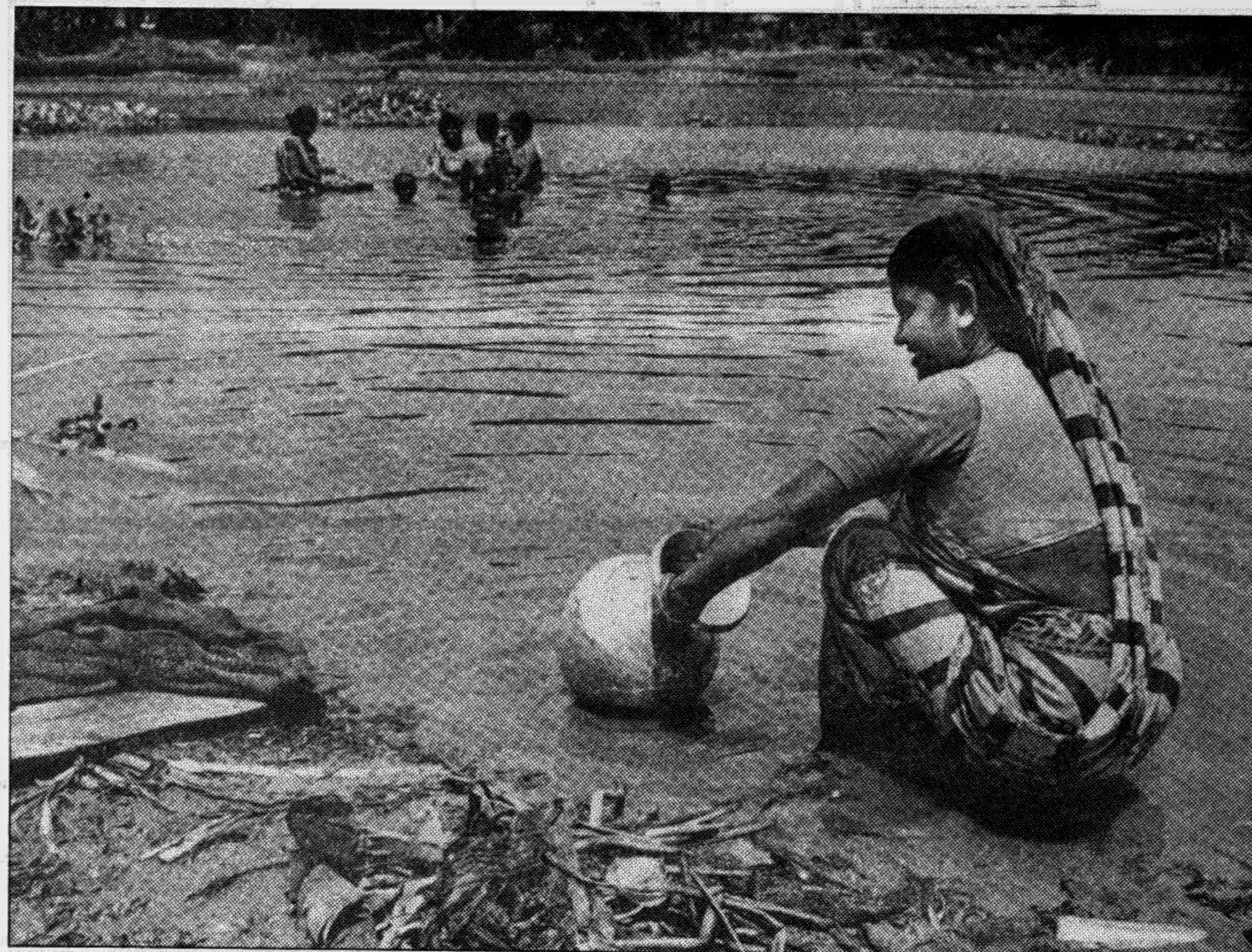
As the Secretary said in the beginning, our two biggest resources are land and water. Unfortunately we have not had, so far, a single example of a very efficiently managed resource. I have heard so much about human resource development. We eulogise our talent, our people. People are our best resource, children are our future and then you see nothing is being done about it. So I must say that whatever I heard I am enthused by it. But simultaneously the tremendous sense of scepticism exists. Still I am an eternal optimist, so I will try and keep my scepticism in control and let my optimism fly with all of yours, because after all this is our country and we have to build it.

My feeling is that in Bangladesh we have this habit of taking grand plans, trying to do a lot of things and end up doing nothing. Or end up doing things in an isolated manner. I will feel much more comfortable in knowing that some smaller things are being tried and they are being successfully implemented.

What this country needs is demonstration of success. You cannot imagine how much stronger one small example of success is compared to thousand words of rhetoric and claims and plans and visions.

Now in the case of water, I think we have had a collective experience. We are all coming to the realisation that it has to be managed well otherwise we don't have a future. So, I think there is a justification for optimism. But it has to be simultaneously coupled with the fact that we really have not had that much of an example of a successful, planned implementation.

I am offering all of you the cooperation from the media. If you have problems of implementation, if you have the road blocks, share it with us. So use this cooperation so that we can further strengthen you and so that you can move forward. All of you, I am talking about WARPO, the BARC, the National Water Management Plan, the Surface Water Monitoring Centre. I invite the World Bank to share with us their vision and thereby go forward.



## Needed: Reflection of New Thinking in National Water Management Plan