

DRINKING WATER MANAGEMENT

*A RADIO CO-PRODUCTION
BY
BANGLADESH BETAR AND
RADIO DEUTSCHE WELLE*

**PRODUCERS:
MOHAMMAD SHAMSUL HOQUE
AND
CHRISTOPH HASSELBACH**

Programme: Radio co-production

Country: Bangladesh

Name of the serial: Drinking Water Management

Language of the programme: Bengali

Tape no.:

Speed: 7.5 ips

Duration: 29 minutes

Script writer: Mohammad Shamsul Hoque

Translator: Md. Abdul Hoque

Narrator: Mohshina Rahman and Nurul Hasnat Jilan

Announcer:

Producer: Mohammad Shamsul Hoque, Farm Broadcast, Bangladesh Betar

Programme: Radio co-production

Country: Germany

Name of the serial: Drinking Water Management

Language of the programme: English

Tape no.:

Speed: 7.5 ips

Duration: 28.30 minutes

Script writer: Mohammad Shamsul Hoque and Christoph Hasselbach

Translator: Mohammad Shamsul Hoque

Narrator: Saima Ahmed

Announcer:

Producers: Md. Shamsul Hoque, Farm Broadcast, Bangladesh Betar and

Christoph Hasselbach, Radio Deutsche Welle

Opening announcement:

(signature tune, fade in)

Female voice:

Here we present a programme on drinking water management, a co-production between Bangladesh Betar and Deutsche Welle, the German international radio and tv station, produced by Mohammad Shamsul Hoque and Christoph Hasselbach.

(signature tune, fade out)

Main programme:

(sound effect: water)

Female narr.: The poet Samuel Taylor Coleridge wrote:

"Alone , alone all, all alone
Alone on a wide sea !"
There was water everywhere around...

Male narr.: It's true that there is plenty of water on earth of which 97 per cent is sea water. The remaining 3 per cent only is sweet water. Again, just one third of this sweet water is under human control because the rest of it is in the Arctic region. But even this tiny share of sweet water can fulfill the demand of the people of the world.

Female narr.: Waste, contamination and pollution, though, have made it difficult to supply enough clean water everywhere. According to the UN Environment Programme, in developing countries about 25,000 people die every day due to drinking polluted water. The human body consists of about 70 per cent water. Every day the body discharges water. So, people have to drink.

Male narr.: And if this drinking water is unsafe people are sure to become sick.

(change over and sound effects of river water,
traditional Bengali music)

Bangladesh is a land of rivers. In this traditional song the singer describes a crossing of the river Ganges, in Bangladesh known as the Padma, and asks the river: Who has given this beautiful name to you?

(music, bring up again)

Every day the mighty Ganges, the Jamuna, the Meghna and their branches carry a huge amount of water. Moreover, in Bangladesh there are lots of ponds and ditches. In addition to that, every year in Bangladesh it rains heavily.

Female narr.: Statistics show that even in the dry season there is plenty of underground water. During the monsoon the flow of water is 20 times higher than in the dry season. Still there are water problems, as the Chief Engineer of Bangladesh's Public Health Engineering, Alhaj Mohammad Quadir-uz-Zaman, says:

Mr Zaman: Bangladesh is a very populous country. It has about more than 120 million people at the moment. So the challenging task of providing safe drinking water to its vast population is very great. But still then we have at the moment in the rural areas we have one tube-well for 101 people. And in the future we would like to bring this coverage to one tube-well for 50 people. At the moment the urban coverage is about 50 per cent of the people. They are getting the water supply coverage, household coverage. And I would like also to bring this at least to 80 per cent in the next financial year.

Female narr.: The government of Bangladesh, the foreign aid-giving agencies and the NGOs are now dealing with the same problems. Elizabeth Jones, a representative of Water-Aid, describes the challenges:

Ms Jones: I think the main water problem is actually a sanitation problem. The main issue is not necessarily about purely talking about safe water, but talking about safe water, sanitation and hygiene promotion on a more wholistic basis. Clearly Bangladesh has a number of challenges to overcome on safe water. But it also has a lot of challenges to overcome on under-served populations especially in slums of the cities, especially with regard to urban sanitation.

Male narr.: The purpose of the government's national policy for safe water supply and sanitation is to ensure that all people have access to safe water and sanitation services at an affordable cost and to improve the environment. In order to supply safe drinking water the government is now thinking about privatisation, says the Chief Engineer of the Department of Public Health Engineering:

Mr Zaman: We have also been thinking that water is a precious commodity. And somebody has to pay for this utilisation. And based on this, the private suppliers or the private producers of water, private companies, in future might be coming. And there may be a privatisation of the water supply. Of course, how we will do is a matter of discussion and a matter of taking policy by the government.

(change over, sound effect: traffic)

Female narr.: The situation of the urban poor is still bad. Many slum dwellers in Dhaka, for example, are not connected to safe drinking water. In several localities, some people have monopolised the water supply and sell drinking water at horrendous prices to the slum dwellers. Water-Aid has therefore started a programme through the NGO DSK to set up water points to supply safe drinking water at a very low price.

(sound effect: hand pump)

Male narr.: Among the huts of the Tejgoan slum area of Dhaka, DSK has set up one of their water points. It is a fenced-off square with a

hand pump and a big bath tub. Several people, men and women alike, pour water over themselves. Others fill their pitchers with drinking water, and some are washing clothes. There are also some latrines by the side of the compound.

(sound effect: splashing water, washing clothes, pouring water etc.)

DSK's project manager, Akhil Chandra Das, explains why and how this water point was set up:

Mr. Akhil: (in Bengali)...

Voice 1: (translation) In Dhaka City the slum people have been suffering from water problems. To solve these problems DSK, on an experimental basis, started with a tube-well but found that the tube-well was not working properly because the water level is low. So we talked to DWASA, the Dhaka Water Supply and Sewerage Authorities, how water can be supplied in a legal way for these poor people. DWASA agreed on the condition that DSK assures to pay the water bills regularly and the security money. After we received permission from Dhaka City Corporation we set up this water point.

Female narr.: The slum dwellers run the water point themselves with technical support and advice from DSK. Women are strongly involved in the management. One of them is Lipi:

Lipi: (in Bengali)...

Voice 2: (translation) We use water from here. Most of the people here are poor. They used to collect water from distant places. They are not able to buy water at higher prices. So we formed a nine-member women's management committee and a five-member men's committee and set up this water point. Now we supply one pitcher of water for half a taka (that is about one US cent) and for bathing we charge one taka (about two US cents) per person. In this way we are helping the poor people and we

ourselves use this water for drinking, for bathing and for washing clothes and dishes and also for cooking.

Male narr.: Even though the people are poor, DSK thinks it is important to charge them a small amount because the organisation wants to avoid water waste.

(sound effect: washing clothes)

Joytsna is washing clothes.

Joytsna: (in Bengali)...

Voice 3: (translation) We had no facilities of getting water. Now we have them. That's why we are now free from stomach diseases like diarrhoea, dysentery and skin diseases. And there is no problem any more. We are in a good and comfortable position with our children.

(change over and sound effect: rural atmosphere)

Male narr.: In rural areas of Bangladesh, drinking water supply mainly depends on underground water, brought up by tube-wells. In recent years many of the areas of the country's underground water have been found contaminated by arsenic.

Female narr.: Arsenic is a natural substance. Most of Bangladesh is formed by sediment deposits carried by the major rivers from the Himalayas. And certain parts of the Himalayan system contain arsenic rock. Some of the arsenic deposited in Bangladesh is now coming up through the tube-wells. Water expert Dr. Ainun Nishat has been dealing with the subject for a long time:

Dr. Nishat: There is a school saying that it is due to excessive irrigation. There is another school saying that it is occurring naturally. But only in the last 15 to 20 years we have gone for hand tube-wells in a major way. And that is why we are seeing the effect of it. The present statistics show, out of 64 districts of Bangladesh there is arsenic in 59 of them.

Female narr.: Arsenic in drinking water is invisible and does not smell, and the symptoms - white pigments on parts of the skin - become apparent only after years of consumption. Therefore, arsenic poisoning is often detected only when it has reached a dangerous stage.

Mr Khaleque: (in Bengali) ...

Voice 4: (translation) I come from Kashinathpur of Pabna district. I had built a new house. I had sunk a tube-well ten years ago. My wife died of drinking water from the arsenic contaminated tube-well. The whole family is affected by arsenic. It is a great loss to me. And I have spent a lot of money.

Female narr.: Abdul Khaleque and his 11 year-old daughter Asma are being treated in Dhaka Community Hospital. But how did they get to this hospital from far-away Pabna district? The attending doctor in the hospital, Mr. Shibtossh Roy, explains:

Dr. Roy: (in Bengali)...

Voice 5: (translation) We have been identifying arsenic affected patients in villages since 1996. The patients told me they had drunk the water which they were advised to drink 30 years ago. Because of drinking that water they became ill. They asked: "Now, what will you do for us?" Facing this question we feel responsible for them. I found this girl two weeks ago. Then I asked her father to take her to Dhaka Community Hospital where we are now trying to give her proper treatment in whatever possible way.

Female narr.: But what can the doctors actually do once a person is affected by arsenic? Prof. Dr. Quazi Quamruzzaman, chairman of the Dhaka Community Hospital:

Prof. Zaman: First thing should be to stop drinking arsenic water. And then we found many of the people who got small lesions already in the skin, with proper nutrition, proper management, they feel

better and get better. Yes, some form of treatment can be done. But we are not very sure that is going to cure them. But the present information says, in the long run, one in ten will develop cancer. For the time being you can make them feel better.

(change over: music)

Female narr.: The government and aid organisations have already started to screen the tube-wells all over the country - a tremendous job, given the fact that there are millions of tube-wells in Bangladesh. Those which have tested positive for arsenic are painted red, the safe ones are painted green. The trouble is these shallow tube-wells were sunk into the ground in a major programme precisely in order to get clean water. Because traditionally, people in Bangladesh used surface water which was not clean either. It took the government and aid organisations years to change people's ways. Dr. Mohammad Abdus Salam of Dhaka's ICDDR (International Centre for Diarrhoeal Diseases Research, Bangladesh) Hospital points out what is at stake:

Dr Salam: One of the source where you can get micro-biologically non-contaminated water is water that is down in the earth. And one of the programme that was devised for supply of micro-biologically safe water to prevent diarrhoeal diseases is shallow tube-wells. There has been a programme where the World Health Organisation, UNICEF and the Government of Bangladesh all took part to sink millions of tube-wells because there was a habit of this population to drink pond water, river water. And they are likely to be contaminated by the pathogenes or the germs that cause diarrhoea and other diseases. So while that problem has been solved to a certain extent we may say the problem now is these tube-wells. The water coming from these tube-wells can be contaminated with arsenic particularly - the tube-wells that are sunk in millions, shallow tube-wells. With the deep tube-wells you don't have this problem. Now we are in a deal about what to do. We have already advised, encouraged the people to use tube-well water, and that may cause, throughout the country the problem of

chronic arsenochosis. So, now it's a difficult situation.

Female narr.: But there *are* solutions. One is to sink tube-wells deeper into the ground where there is an arsenic-free layer. But that is relatively expensive and takes time. People need safe water *now*. There are ways of water treatment, though. In recent years scientists and companies have put a lot of effort into the development of these methods. Water expert Dr. Ainun Nishat again:

Dr Nishat: There have been 14 to 15 models so far. And many commercial companies are coming out with their solutions. Then, what sort of technology should we use? Should we go for rain-water harvesting? We must remember, it has limitations with respect to availability of the water. We could go for dug-wells. We could go for some sort of filtration method.

(sound effect: water from tube-well)

Male narr.: These methods are now in operation in some parts of the country, for example in Nilkandi, a village southeast of Dhaka. In this village there are 46 tube-wells. All but one are contaminated. Nilkandi has already 63 arsenic affected inhabitants.

Female narr.: In order to give arsenic-free water to the villagers NGO Forum has set up four so-called Iron Arsenic Removal Plants or IARPs. From one IARP ten families, one primary school and one mosque are receiving safe water. Zia-ul-Hoque of NGO Forum explains how the plant works:

Mr. Hoque: (in Bengali)...

Voice 6: (translation) We surveyed the village first and found all the tube-wells were arsenic affected. We held a meeting in the village with the inhabitants and formed a committee. The villagers asked us to set up IARPs. We set up four plants. They work like this: The arsenic contaminated water from the tube-well is pumped to a tank, from there to an airtion chamber.

After this the water is iron-free and goes to another tank with broken bricks, charcoal and sand. The water is filtered here and flows to a storage tank where it is then fully iron and arsenic free.

Male narr.: A woman of a near-by house, Mariam, explains why she takes water from the plant:

(sound effect: pouring water)

Mariam: (in Bengali)...

Voice 7: (translation) Because it's safe water. It's free from arsenic. That's why there will be no disease. I cook with the water and drink it, too.

(sound effect: school children)

Male narr.: Children are playing at the nearby school. They also use the water from this plant, as their teacher, Khadija Akhter, advises them to do:

Ms Akhter: (in Bengali)...

Voice 8: (translation) I always talk to them to make them conscious about arsenic. I inform them that if you drink arsenic-free water you will not suffer from diseases. I also advise them to tell their parents to be cautious. As there is an IARP in the nearby house, if you always take water from there you will be free from diseases.

Male narr.: In order to get clean water, NGO Forum also recommends to use a very old, but simple method called rain water harvesting. With this method rain water is collected from the tin roofs of houses and stored in a safety tank. Zia-ul-Hoque again:

Mr. Hoque: (in Bengali)...

Voice 6: (translation) We know in our country during the monsoon it rains for about four to five months a year. During this period, if we can store the rain water in a tank we will be able to use this for the whole year.

Female narr.: The method seems to have solved the arsenic problem for many families. Mohammad Sultan with his family of nine members owns one of the rain water harvesting plants:

Mr Sultan: (in Bengali)...

Voice 9: (translation) We are affected by arsenic. And that's why NGO Forum set up the plant. Since then we have been drinking rain water. And we are getting well again.

(change over: music)

Female narr.: Experience in the various regions of Bangladesh shows that the country still needs to go a long way. Dr. Mohammad Abdus Salam thinks only a concerted effort will achieve the aim of safe drinking water for all:

Dr. Salam: We have to change the behaviour of people and that is very difficult to do. So we have to develop a programme for a behavioral change of people. We will have to get the supply that requires enormous amounts of resources that perhaps the Bangladesh government can't mobilise. So here we need the help of other donor groups, donor countries. So it's only through our concerted efforts, the government, the donor communities and the other interested parties, of course, the scientists, the medical personnel and the social activists, educationists - everybody has to be involved if we really have to address the question of safe drinking water.

Male narr.: The government has taken the initiative to raise public awareness through the media in various ways. For example, there are regular radio spots.

(sound effect: radio spot)

In this radio spot the young man wants to drink water from the tube-well. His grandmother gives it to him. But the young woman warns them. Are they sure the water is safe? The man says: Yes, because it is from the tube-well. Then the young woman says: But that's no guarantee. We have to check the tube-well whether it's safe.

So, a lot of things are already going on in Bangladesh. But it will take much more to achieve the goal to provide safe drinking water for all.

(signature tune, fade in)

Closing announcement:

Female voice: And with that we come to the end of our co-production between Bangladesh Betar and Deutsche Welle, the German international radio and tv station, on drinking water management.

Our narrators: Saima Ahmed and Christoph Hasselbach

Technical assistants:

Mohammad Shafiqul Alam and Mohammad Amirul Islam

Script-writers and producers:

Mohammad Shamsul Hoque and Christoph Hasselbach.

(signature tune, fade out)

END OF PROGRAMME