

WATER 2000
International Coproduction of Zimbabwe Broadcasting Corporation and
Deutsche Welle Radio
Harare, Zimbabwe
6.11.-26.11.2000

MUSIC: RAINMAKER „LET IT RAIN“, INSTRUMENTAL, FADE UNDER

WALTER MUPFANOCHIYA:

You are listening to Water 2000, an International Radio Coproduction of Zimbabwe Broadcasting Corporation and Deutsche Welle, the German International Radio and TV Station.

MUSIC RAINMAKER „LET IT RAIN“, INSTRUMENTAL

WALTER MUPFANOCHIYA:

Hello, and welcome to Water 2000, I am Walter Mupfanochiya. I will take you on an exploration journey off the trodden tracks of Zimbabwe waters. From a birth of a promising management system – the water catchment councils - and through the South-Eastern semi-arid rural areas of a country - which is landlocked and depends on water harvesting and use of groundwater resources.

MUSIC: SONG AND WOMEN ULULATING

WALTER MUPFANOCHIYA:

Now if you think of water in Zimbabwe what probably comes to mind immediately is the mighty Zambezi River thundering down the Victoria falls – one of the natural wonders of the world in the North-West of Zimbabwe. So Zimbabwe must have water in abundance. Unfortunately, that's not quite the case. In fact water is a scarce commodity in Zimbabwe. It has been described as the „single most important resource for the future“ It flows through the major economic sectors: of agriculture, energy, industry, mining, tourism, and fisheries.

MUSIC FADE UNDER

WALTER MUPFANOCHIYA:

If you look at a map of Zimbabwe there are no natural lakes! So all water has to be stored in artificial lakes or dams. That's why there are over 2000 dams.

At the same time Zimbabwe has an agrarian based economy, and about 40 % of the principle crops are produced under irrigation – that are wheat, cotton, sugar cane, soya beans, tobacco and maize. That's why water is considered top priority. In view of the increasing scarcity of surface and ground water the government of Zimbabwe embarked on a national programme for the development of major water sources.

REPORT 1: WATER REFORM/CATCHMENT COUNCILS

SPEAKER:

After independence many Zimbabweans were fed up with the old water rights, which allowed only a few people to harvest and use water upstream - leaving thousands downstream without adequate water supply. With more and more people pushing into small-scale farming and enterprises which required water, there was a need to manage the limited resource. In 1996, the government of Zimbabwe implemented a national reform of the water sector. Zeb Murungweni who works for the German GTZ within the ministry of Rural Resources and Water development recalls who was involved in the drafting.

TAKE MURUNGWENI (GTZ/MINISTRY OF RURAL RESOURCES AND WATER):

„In 1993 the ministry set up a reviewing committee to look into the inadequacies of the 1976 act and that committee consisted of people in various key government ministries like agriculture, water development, environment combined with farmers, people in the industry, private sector.“

The idea the reformers were eager to put across was that water was a common resource that didn't belong to anybody, and that should be shared equitably. While water for primary use should be free, commercial users of water should pay. As well as polluters. But the stakeholders - like farmers, miners, hotel and hospital managers, schools and industrialists - had to get used to this idea first. Jerry Gotora, chairman of Mazowe catchment council had to push hard.

TAKE JERRY GOTORA (CHAIRMAN OF MAZWOWE CATCHMENT COUNCIL):

„I would encourage and persuade everybody to get committent - both government, the private sector and the private individuals - to want to seriously manage water. Because without water there is no life.“

In memory of the 1991-1994 draught, people realised that water had to be allocated to the environment as well. It soon became clear that today's environmental damage is tomorrow's economic decay. For the first time, water was seen in the context of the hydrological cycle. It is for this reason that as units of water management the catchment areas of the seven major rivers were chosen - instead of political or administrative boundaries. Trying to express the reform they developed a formula called the three E's.

TAKE ZEB MURUNGWENI:

„The three Es form a very solid triangle. Equitable in access, efficient in economic use of water and environmental protection. Using a catchment protection is an ultimate means of ensuring that you have got water now and for the future.“

To test the principles proposed in the new water act, the catchment area of the river Mazowe was chosen as a pilot area. Mazowe river originates in Harare, flows north-east and runs into Mozambique. It covers 21 000 square kilometres. Chairman Jerry Gotora explains.

TAKE JERRY GOTORA:

„The catchment councils are management structures to manage water. We have gone through a reform process in the country where the water management systems and strategies have been decentralised to the stakeholders. And the stakeholders include both the urban people, the commercial users of water and the communal people who use water for basic requirements.“

To encourage rural subsistence farmers to enter income generating farming ventures the government granted them targeted subsidies to buy water permits.

TAKE FARMER ALFRED MUCHACHA (SHONA/VOICE OVER):

„My name is Alfred Muchacha. I come from Pfungme and I represent Pfungme water user board. We have serious water problems. The establishment of subcatchment councils was a welcomed move, because we are now looking forward to good storage of water for

commercial purposes, since we use water for primary use only. And the subcatchment council is looking into how we can have access to dams and wells so that people can farm and irrigate at commercial levels perhaps we'll be able to sell our produce throughout that year."

To manage the catchment councils the government of Zimbabwe has created a semi-autonomous agency or parastatal – the Zimbabwe Water Authority. ZINWA will be responsible for the provision of technical expertise to stakeholders while the Department of Water Resources in the Ministry of Rural Resources and Water Development retains its regulatory powers.

With water becoming scarce commodity it is predicted that drought will occur more frequently in Southern Africa in the future. As a result of this scare other countries in Southern Africa have taken a cue from Zimbabwe and are in the process of implementing similar water reforms.

END OF REPORT 1

WALTER MUPFANOCHIYA:

Despite these reforms the water resources in Zimbabwe are under siege. Population growth has added a new dimension to the demand and availability of water, limiting the country's ability to provide clean drinking water. Especially in the big cities, like Harare. Here, the population grows at a rate of over six percent – that's twice the national growth rate. Due to rural-urban migration water resources face depletion.

REPORT 2: URBAN WATER SUPPLY - A DAY IN THE LIFE OF A WATER CHEMIST AT HARARE WATER TREATMENT PLANT

SOUND EFFECT WATER

SPEAKER:

On our way to Harare's water treatment plant we are speeding across Lake Chivero, one of the two water reservoirs of the capital. It's 14 kilometers long and 8 kilometers wide, holding enough water for the next three years.

SOUND EFFECT WATER

The water of Lake Chivero feels warm, around 22° Celsius, and is bright green, full of microscopic algae. Not at all what you would like to drink, and yet, this water is sucked in at an intake tower in the middle of the lake and pumped to the water treatment plant behind the Lake Chivero dam wall.

On a metal catwalk we are crossing a cascade of pools in which the greenish lake water is treated with chemicals, whirled, and filtered, eventually getting clearer. Before it's piped 35 kilometers to Harare we join Lisben Chipfunde, chief water chemist of the city council of Harare for a last check-up in the lab.

TAKE LISBEN CHIPFUNDE (CHIEF WATER CHEMIST OF CITY COUNCIL OF HARARE):

„Although we are making our levels best to produce water which is within the World Health Organisation guidelines of 1996, but we feel that we could do much more if we had extra equipment. But because of the financial problems that we have we are unable at the present moment to acquire equipment.“

What's needed is equipment to sterilize the water with ozone or UV-radiation to enhance the quality. Mr Chipfunde would also like to get chemicals to test the water for heavy metals since there are several industrial dumps along the river banks of Mukuvisi river, which runs into Lake Chivero. And disposing of industrial wastes into water bodies is far spread, because it is cheap and convenient.

Already the algal blooms indicate that the water is overloaded with nutrients like phosphorous and nitrogen, sulphate, and aluminium. They are carried into the lake with the surface water run-off from farms – mostly fertilizers, herbicides and pesticides- and overloaded sewage works. Once the algal blooms die they threaten to choke Harare's drinking water supply by depleting the water off oxygen. Experts say, it's only a matter of time that the water quality will go down. The treatment plant was built in the fifties, designed to supply water for 800 000 residents. Today, the same plant operates to supply water for two million.

TAKE LISBEN CHIPFUNDE (CHIEF WATER CHEMIST OF CITY COUNCIL OF HARARE):

„Roughly they need about 400 megalitres of water per day, about 160 litres per person is required. But then we have the problem of the rural to urban migration which is happening. And the city is growing very fast.“

If people continue to migrate to the city, Harare will be home to five million residents in 15 years. That means there are three million people more, requiring drinking water and sewage treatment than today.

TAKE LISBEN CHIPFUNDE (CHIEF WATER CHEMIST OF CITY COUNCIL OF HARARE):

„We are actually operating at maximal levels. What we want is a major investment in the upgrading of the waste water treatment works and also an improvement in the way the industries handle their effluent quality.“

Rural-urban migration is not a new phenomon, but is a problem world-wide. It is public knowledge that the city council is heavily burdened by the explosion in water demand. To combat this socio-economic crisis it requires a bigger player.

END OF REPORT 2

Music fade under

WALTER MUPFANOCHIYA:

Declining tap water quality is a big issue. But what about the many Zimbabweans who don't have access to piped water? The distribution, occurrence and availability of water resources in Zimbabwe is uneven. Rainfall is erratic, with the eastern highlands receiving more rainfall than the southern parts of the country which are semi-arid and are prone to drought.

The majority of the rural people depend on boreholes and wells rather than on natural water sources such as springs. While the drilling of boreholes in urban areas is mostly used to circumvent water rationing measures, and to water lawns and golf courses, in rural areas it is a matter of survival.

REPORT 3: RURAL WATER SUPPLY - FOR DRINKING WATER IN MASVINGO PROVINCE

Sound Effect: Wheel Drive

SPEAKER:

On a bone-shaking ride we are slowly creeping off-road through the semi-arid savannah of the lowveld of Masvingo province in the South.

TAPE NORBERT HONIGMANN (GEOLOGIST, DORSCH CONSULT) WHILE DRIVING:

„We are going now to Mangezi borehole..it’s borehole, about 50 meters deep...“

We have joined Norbert Honigmann, a German geologist, and his colleague Jacob Makore on their daily search for water. Together with the district development fund they drill boreholes - a top priority water and sanitation programme of the government.

The people who suffer most are the women. Because they are, like in the whole of southern Africa, the main managers of environmental resources. So, it is their job to fetch water for their families. With the scarcity of water due to recurrent drought, they are often forced to walk long distances. According to a World Bank estimate, some African women use 40 percent of their daily nutritional intake travelling to collect water.

TAKE WOMAN AT MANGEZI BOREHOLE (SHONA/VOICE OVER):

„We used to walk for three kilometres to fetch water. We would get about three buckets of about 20 litres each for the entire day, because it was far away. And so it was very difficult for us to get adequate water for basic use.“

20 litres of water weigh twenty kilograms, the same as the baggage allowance on most airlines. Constant carrying of such heavy weights, commonly on the head, back or hip, has severe health implications. So backache and joint pains are common with women in the rural areas.

SOUND EFFECT OF BOREHOLE DRILLING, FADE DOWN AND HOLD

Drilling of boreholes in Zimbabwe isn’t easy, says Norbert Honigmann, compared to other African countries.

TAKE NORBERT HONIGMANN (GEOLOGIST, DORSCH CONSULT):

„I mean the granite and the gneiss are very hard. It is not very good for ground water, especially for boreholes. ... The rock itself doesn’t contain any water. We have to look for the fracture zones there we find the water.“

In order to find those fracture zones, he has to get a good overview of the area first, ideally from a plane or from satellite. In his office we bend over huge coloured satellite images and aerial pictures of Masvingo province.

TAKE NORBERT HONIGMANN (GEOLOGIST, DORSCH CONSULT):

„First you see all the river beds, you see some fracture zones here and then you can also locate the villages, then of course we move into the field and we look at the ground, we look at the area and then we decide where to go to have a geophysical investigation, geo-electrical soundings, that's done by the ddf water division here in Masvingo. And they identify finally where we can drill a borehole.“

SOUND EFFECT OF BOREHOLE DRILLING, FADE DOWN AND HOLD

Funded by the German National Credit Institute for Reconstruction, KfW, he supervises the drilling of about 300 boreholes a year, of a depth of 80 metres. If everything goes well, the boreholes can last for generations.

SOUND EFFECT OF PUMP CONSTRUCTION, HOLD UNDER

The key for long-term success is community participation. That means that the local communities are actively involved in the construction and management of the new waterpoints. - In Mangezi about eight men are busy constructing the metal headwork of a pump. The robust hand pump is manufactured in Zimbabwe and fairly easy to put together. That's to ensure it can be maintained easily and spare-parts are also readily available.

SOUND EFFECT

On site, women and children are watching the men's progress from the shade of an acacia tree near by. It is scorching hot and everybody is anxious whether the pump will work and lift water from the ground over 40 meters below. - The men have started pumping.

SOUND EFFECT OF PUMPING, THEN WATER FLUSHING, THEN WOMEN HOWLING

For the villagers the water is a blessing – an escape from poverty. And the elders get to taste the water first.

TAKE ELDEST OF MANGEZI VILLAGE DRINKS WATER:

„It’s very nice, it’s very nice this water“

TAKE WOMAN AT MANGEZI BOREHOLE (SHONA/VOICE OVER):

„We now have enough water for washing and bathing. I am overjoyed by the installation of a new borehole close by. Our kids can now afford to even play soccer and bath regularly.“

TAKE ANOTHER WOMAN AT MANGEZI BOREHOLE (SHONA/VOICE OVER)

„Now that we have a new borehole the water will be used to water our tomatoes and other vegetables which we will in turn sell in order to get a better livelihood.“

MUSIC FADE UNDER

Water is life and the basis for any development. With continuous access to clear drinking water close by, people in Mangezi might even think of building a school or a hospital.

END OF REPORT 3

MUSIC

WALTER MUPFANOCHIYA:

Other ways to search for hidden groundwater supplies are looking for indicator plants and trees. These are trees - like the Waterberry – that indicate the presence of groundwater, even if the area is dry and burnt. Now, this knowledge of nature’s indicators is commonly used by modern scientists today. Finding groundwater is one practice of the rich heritage of traditional water use and management. Making rain is another practice still in use today. Throughout rural Zimbabwe villagers in times of need consult Mhondoro or Rainmaker to pray for rain. We caught up with Joseph Chinomwe and his wife Rosemary at the Shona village in Great Zimbabwe. Upon request, the Rainmaker and colleagues sang and danced for the rains to fall – and amazingly it did rain!

REPORT 4: RAINMAKING CEREMONY - A DAY IN THE LIFE OF A RAINMAKER IN GREAT ZIMBABWE

DRUMS

TAKE JOSEPH CHINOMWE (RAINMAKER AT GREAT ZIMBABWE, SHONA/VOICE OVER):

„We will be saying when we arrive at a hissing tree „You, cloud, and you, cloud, meet! – when they meet, then it rains. The people who ask for rains are warned of their nature. Whether the rain brings lightening and thunder, especially those with badly constructed houses. At the rainmaking ceremony traditional beer is brewed and when the rains begin to fall then their wish has been fulfilled. People will leave the beer and dash back home, knowing that their plea has been heard. When we sing the rain song, of course it will rain! Why not?“ (..laughter..)

DRUMS

SPEAKER:

With our microphones open we are crouching in the hot sun watching Joseph and his wife Rosemary dancing under an old tree in front of their huts. Two old women in the background play drums, one of them ululating.

DRUMS

We try to be as inconspicuous as possible, because the ancestral spirits are said to be irritated easily, in particular by strangers. But we are lucky, the spirits don't seem to mind our presence. Joseph and Rosemary seem fully absorbed by the rainmaking ceremony. Their faces appear to be ease and with us – but if one takes a closer look the rainmaker and his wife were no longer of this world.

DRUMS

Strips of animal skin swing around them as they dance. We can identify leopard, wild cat, and cow hides. Joseph and Rosemary wear olive green robes, around their calves they have tied Hoshos, calabasses filled with tree seeds. As their naked feet stamp the ground in perfect synchrony the rattles beat a rhythm that makes our feet move.

SONG AND DRUMS

The two rainmakers hold traditional ploughing sticks in their hands, and as if to strengthen certain text passages, they point them uniformly at the sky, then to the ground, indicating a ploughing movement.

SONG AND DRUMS

The fall of the first rains is a significant annual event in the rural communities and is awaited for in earnest. It is traditional Shona knowledge that on the onset of rains the colour of certain leaves will change, as well as the wind direction. But how to make the rain is a knowledge exclusive to rainmakers.

TAKE JOSEPH CHINOMWE (RAINMAKER, SHONA/VOICE OVER):

„There are mermaids which show themselves in dreams sometimes pushing you into the water but if you don't dream about them then it means that there will not be enough rain that year, no matter how much people pray, dance and sing.“

Failing to make rain in years of drought has seen rainmakers threatened and banished by disgruntled villagers. But even in times of drought there are some measures a rainmaker can take.

TAKE JOSEPH CHINOMWE (RAINMAKER, SHONA/VOICE OVER):

„What might have happened is that some people might have hung a bad thing in the tree for instance crocodile skin, then it won't rain. What also can have happened, other people might have hung a dead person's blanket in the tree, and so somebody can dream about it and will eventually move the blanket from the tree and burn it and the rain returns. Once this has happened then people will know that the mermaids have given birth. Also, the rains don't allow burying a baby in an open space, because the baby has no teeth and cannot speak and will not speak. That is why sometimes lightning strikes. These are the incidences that separate us from the rains.“

SONG AND DRUMS

As Joseph and Rosemary start singing the third song called „Oh clouds! Let it rain so we can fill our bellies!“ we are distracted by a splashing sounds – raindrops falling on the trees and on the grass around us... bringing smiles to the rainmakers, and leave us behind all bewildered.

END OF REPORT 4

WALTER MUPFANOCHIYA:

Be it mermaids or climatic factors - the lowveld is periodically affected by severe and prolonged droughts. This may be interrupted by equally devastating floods in some areas. Over the years flooding has been enhanced by soil erosion which again was triggered by destructive land-use.

And that's what actually happened when floods devastated the south-eastern parts of Zimbabwe. Leaving more than 300 000 people homeless, and without food and safe drinking water. The cause was not man-made, but through a cyclone called Eline.

REPORT 5: CYCLONE ELINE AND ITS DEVASTATING EFFECTS

SOUND OF RAINS, FADE AND HOLD UNDER.....

SPEAKER:

20th of February, year 2000. For three weeks Zimbabwe has received torrential rainfalls.

22nd of February. Wind speed picks up to over 200 km per hour, the rains get even harder. The Save River flows over, flooding villages.

24th of February. Several people drown. The Authorities announce a national emergency.

TAKE ZBC RADIO , NEWS ID

„The News on One.

Here is an important announcement: People are advised to move to higher grounds and remain indoors and make sure that all windows are closed. Avoid carrying heavy baggage. It is advisable to carry light small portable radios for easy communication.

The News on One.“

TAKE MAN AT CHIBUWE VILLAGE (SHONA/VOICE OVER):

„It caught us unexpected. And we could see nothing because of the rains. Some of our crops were still in the fields, it destroyed the plants, the pit latrines, houses fell down.“

The floods built up within hours leaving no time for the authorities to react. After the exceptionally wet rainy season the ground was already clogged with water and the reservoirs were filled to the brim. The water masses were rushing down hill into the low lying areas, flooding everything.

Usually, cyclones die down quickly when they reach land. For that reason, the cyclones that form in the Indian ocean, usually don't have enough energy to cross the mountain range of the Eastern Highlands. In February, too, it first didn't look like cyclone Eline would make it into Zimbabwe. That's why the meteorologists under the Ministry of Transport and Energy informed the public only three days before the cyclone struck.

The warning came too late for many.

Entering Chibuwe village which is about 80 km from Chipinge, one quickly notices uprooted trees, badly damaged roads, fields, bridges and houses with no roof top. Mud marks on the huts at above window level indicate the height of the flood.

TAKE GIRL IN CHIBUWE VILLAGE (SHONA/VOICE OVER):

„Cyclone Eline came and we had to swim in water, even our pots were swept away by water. We had to look for where to lay our heads.“

Ironically the worst implication the floods had, was a lack of drinking water. Chief water engineer with the District Development Fund James Muzambindo explains.

TAKE JAMES MUZAMBINDO (CHIEF WATER ENGINEER WITH DISTRICT DEVELOPMENT FUND):

„The cyclone Eline caused a lot of destruction of water points in four major. In total there were 300 wells and about 500 boreholes which were affected.“

Most wells and boreholes are located in low lying areas which were flooded by water a meter high, contaminating them with sediment, sewage from collapsed latrines and other pollutants.

Dakarai Hliwayo, school master at Chibuwe, remembers what it was like after the cyclone.

TAKE DAKARAI HLIWAYO (SCHOOL MASTER AT CHIBUWE):

„There was a lot of disease outbreak like malaria, dysenterie and so forth, but we haven't recorded any case of cholera.“

The only donor that has come through with funds for the rehabilitation of contaminated water points is UNICEF, the United Nations Childrens Fund. With the actual operations carried out by the District Development Fund UNICEF allocated US \$ 665 per borehole and US \$ 300 per well.

SOUND EFFECT AT THE WELL

Take James Muzambindo (chief water engineer with district development fund):

„We use very powerful engines to water pumps we water all the wells and then we feedback the pumps. For the boreholes we are using drilling rigs to flush out the muddy water.

SOUND EFFECT OF FLUSHING THE BOREHOLES

After the muddy and smelly water is removed from the wells and boreholes, environmental health technicians add chlorine and aluminiumsulphates for disinfection. – However, nine months after the floods most of the contaminated waterpoints have still not been cleaned - due to a shortage of fuel and funds. People are left with the recommendation to boil their water before drinking.

MUSIC

END OF REPORT 5

MUSIC

WALTER MUPFANOCHIYA:

The Department of Civil Protection has kick-started a public awareness campaign in the national papers. Urging the public to take precautions and to be prepared. So look out for heavy rains and strong winds, you might just be another victim.

MUSIC FADE UNDER

WALTER MUPFANOCHIYA:

You have been listening to Water 2000, an International Radio Coproduction of Zimbabwe Broadcasting Corporation and Deutsche Welle, the German International Radio and TV Station. Producers of this programme are Ulrike Hassink and Walter Mupfanochiya. Technical Assistance: Noah Matselele. It's bye for now.

MUSIC