

Sustainable Development Script : 20

Conserve Water for Tomorrow

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Cast

Sumit: Student of B.Tech

Aanchal: Sumit's sister . Class 10 student

Dinesh: father about 45 years of age.

Dr Irfan: College Professor 45 years old

Banshidhar: Rajasthani elder. 65 years old (accented pronunciation)

Godavari: Elderly lady of Uttarakhand. (accented pronunciation)

Signature tune: fade out

Anchor (Welcome + Recap + Intro)

Welcome to the Radio serial.... I today's episode we will discuss the different sources of water and their conservation measures. Where did this water come from. And if water is such a plentiful resource why do we need to conserve it? These questions haunt Sumit as he returns to his roots on vacation. Will Sumit find answers to these vexing question? Let's join Sumit and find out.

Signature tune

Scene One

Birds chirping. Bubbling/splashing sounds as a vessel is lowered into a well.

Sounds fade.

Aanchal:

Bhaiya, you keep saying there is global scarcity of water...but look at our well. It is full of water.

Sound of a metal bucket being placed on the floor

Sumit: (with a slight laugh)

It is nice that we are not facing this situation in our village. But this is not the case everywhere.

Aanchal: Yes...we do not lack drinking water. And we even have enough to water our crops.

Sumit: Look, Pitaji is coming. Maybe we have dawdled too long here talking about water.

Footsteps coming closer

Dinesh: What kept you so long. You have spent so much time by the well. Let's go home now.

Footsteps

Dinesh: Have you noted that our well has adequate reserves of water? Are you satisfied now?

Sumit: Yes, Papaji. Our well is well-stocked. But this is not the case at our college hostel. There is a serious shortage of water there. It gets really bad during the summers.

Aanchal: But Bhaiya, you said there is a river that flows by your college. So why should you face water shortage?

Sumit: Oh my! Aanchal if only you could just see the river. Its water is not fit for bathing let alone for drinking.

Aanchal: What do you mean?

Sumit: I mean the river is really polluted. The water is dirty and muddy.

Aanchal: Oh no...why? Why is it like this?

Sumit: This river flows past many cities and town...habitations that include factories and industrial units that throw their trash and discharge their sewage and other effluents into its waters. Now tell me, can you drink such water?

Aanchal: Definitely not! But then where do cities get their water from?

Sumit: Different localities have made different arrangements. But of course not all rivers are so polluted.

Mobile phone ringtone

Dinesh: (**One- sided conversation**) Hello..Namaste Doctor sahib. Yes....yes...of course he will go. No, no we will meet at home. See you in the evening. Sure...Namaste.

Aanchal: Who called, Papaji?

Dinesh: It was Dr Irfan...he is a Professor at the degree college here.

Sumit: He is your friend, isn't he?

Dinesh: Yes, he is. We haven't met for a long time. He said he would drop by in the evening.

Sumit: That's good. Aanchal, he can answer many of your questions too.

Dinesh: That's all right but hurry up a bit. We need to go home and cook lunch as well.

Aanchal (teasingly): Papaji, today you will find out how hard Mummy works at home.

Dinesh: Do you mean to say I relax at office the entire day?

Aanchal (laughing): No, no Papaji I am simply saying you will get to show off your skills in the kitchen too.

Laughter. Footsteps fade

Scene transition music

Cricket match on TV/ Sounds as appropriate/ Doorbell rings

Dinesh: Sumit, turn down the sound...I think there is someone at the door.

Doorbell rings again

Aanchal: I think it is your friend Prof. Irfan.

Sound of door opening.

Aanchal and Sumit: Namaste Uncle. Please come in.

Irfan: Namste Namaste...how are you two?

Dinesh: Come in Doctor sahib. Welcome...welcome. Come take a seat.

Irfan: Enjoying cricket, I see.

Dinesh: Just watching the highlights of the game.

Sounds of the TV fade.

Irfan: I thought I'd drop in since we have not met for a while...so it would be walk for me plus the pleasure of your company.

Dinesh: Yes, that was a good decision. We haven't met for a long time...I just don't find time. Commuting to office takes up so much time...and the kids here wanted to meet you as well.

Irfan: (**surprised**) Meet me?

Dinesh: You do know that Sumit is pursuing B.Tech.

Irfan: Yes...yes.

Dinesh: He is here on vacation. Today, Aanchal and Sumit were discussing about water. I said it would be better if they posed their questions to you.

Irfan: (slight laugh): It is good that the young generation is showing interest in such issues. So, Ok kids tell me...what is it that you want to know?

Aanchal: Uncle, Bhaiya was saying that the river near his college is so dirty that its water is unfit for consumption. How do people there meet their needs if they cannot use the river water?

Irfan: In short I can say that there are many techniques to purify dirty water and to make it fit for use.

Aanchal: And what would be your longer answer?

Irfan: You have to be very patient if you want my longer answer because as a prelude you will have to hear about the different sources of water.

Aanchal: The oceans are the largest reservoirs of water, aren't they?

Sumit (a little tersely): Let Uncle finish speaking.

Irfan: Well the oceans may be the largest reservoirs of water but you know well enough just how useful its salty waters are in everyday life.

Aanchal: Yes Uncle. You are right. The salty water is of little use to us.

Irfan: Look broadly speaking there are two main sources of water...the first is water that flows on the surface of the soil...and the second that is located underground....we call this ground water.

Sumit: Rain qualifies as an important source of water, doesn't it?

Irfan: Yes absolutely. And rain is such a unique resource that it rejuvenates both surface water as well as ground water. Rain replenishes ground water. Remember that in India those areas that are rich in water resource are areas where (on an average) it rains about 100 cm.

Sumit: Uncle so I think the two sources of water are first the water that we see flowing and second, those that gush out from the depths of the earth.

Irfan: Correct. And the needs of about 70 per cent of the people are met by ground water. Of course in addition to these two sources...we have the melt waters from glaciers, water from seasonal rivers, hill streams both small and large, lakes, ponds, johars, babris, and kunds etc.

Aanchal: So we have lots of water, then.

- Irfan:** Not really Aanchal. About 16 per cent of the world's population lives in India. Yet we have just 4 per cent of the world's water resource.
- Dinesh:** The result of population pressure on our water resources is clearly evident. Just look at the rivers with sources in the Himalayan region. In the sparsely populated hilly terrain these rivers remain pristine. Yet how dirty and polluted these become once these enter the plains.
- Aanchal:** But why is this so, Uncle?
- Irfan:** The plains support a high density of people. So all the domestic waste, the sewage even industrial effluents are discharged into the river...and that upsets the health of the water that flows in it!
- Sumit:** This is a serious issue.
- Irfan:** In the relentless race of development we have lost sight of the fact that conservation of natural resources is our responsibility too.
- Dinesh:** And there must also be a limit to our exploitation of natural resources.
- Irfan:** The scarcity of water coupled with increasing demand is putting our water resources under stress. We need to safeguard water sources from pollution. We also need to conserve and store rainwater, plus learn to reuse water if we want to counteract water scarcity.
- Dinesh:** Our country is geographically diverse. That is why there are different types of water resources in different parts of the country. The water resources of the Terai regions of the plains differ from the water resources available in the hills. And the difference is even more stark if we talk about the western most area of Rajasthan.
- Irfan:** Rajasthan reminds me....Sumit, you are on holiday..right?
- Sumit:** Yes Uncle.
- Aanchal:** And I am on holiday too.
- Irfan:** So you can join us at the Jal-Mahotsav festival in my college tomorrow.
- Sumit:** Jal-Mahotsav? The Great Water Festival??
- Irfan:** Yes, it is a 3-day festival in my college. Many people from all over India will be setting up stalls. They will demonstrate the water resources and traditional conservation practices prevalent in their localities.
- Sumit:** This is great. We will definitely come.
- Dinesh:** And I will join you after office. Learning something new is never a bad idea.

Irfan: I will also drop in if I find time in the evening. Maybe we will meet there. However, now I must take your leave.

Dinesh: Please don't leave so soon.

Irfan: I wish I could stay longer but I have to go...maybe we will meet tomorrow.

Dinesh: Ok. Take care. Namaste.

Sumit and Anchal: Bye Uncle.

Irfan: Bye children. See you tomorrow.

Scene transition music.

Scene Three

Crowded venue of Jal Mahotsav. Stalls have been erected. Muted sounds of a crowd. Anchal and Sumit are talking as they walk along.

Aanchal: Bhaiya, This is a really nice place.

Sumit: Yes definitely. Look at the many stalls that have been erected here. Look...look at that. It is a small model of a river. How beautiful!

Aanchal: And see there...it is the model of a woman drawing water from a well. It is just a clay doll but so lifelike that you almost expect her to speak.

Sumit: There are many things that we may explore here...look...a stall from Rajasthan. Let's go there first.

Aanchal: Ok.

Sounds of footsteps/Folk music of Rajasthan...comes closer.

Sumit: Wow. What lovely models of the traditional water resources of Rajasthan.

Aanchal: Bhaiya, let us go and chat with the elderly gentleman there....see...he is wearing a big turban.

Sumit: Namaste Babaji. How are you?

Banshidhar: I am fine, thank you.

Sumit: I am Sumit. This is my sister, Aanchal. May we talk with you about the water resources of Rajasthan.

Banshidhar: Why not? Come, sit down here.

Aanchal: Babaji, I would like to know about the water resources of Rajasthan.

Banshidhar: You know that it rains very little in Rajasthan and we have few perennial rivers. In the western part of Rajasthan there has always been an acute shortage of water. So, it was always necessary for us to conserve what little water we had.

Aanchal: So what did you do?

Banshidhar: Ponds and tanks have been dug in Rajasthan since ancient times. These were places where rain water could be stored. Community participation ensured that these water bodies were maintained properly. Unfortunately some of these have now become extinct because of population pressure.

Sumit: But there are some lakes in Rajasthan, aren't there?

Banshidhar: True. In the context of water resources and their conservation, the importance of the lakes cannot be denied. Some of these lakes are hundreds of years old. Ancient kings and rich merchants had ordered the excavation of these lakes. The water of these lakes is used for irrigation and sometimes, for drinking also.

Sumit: Rajasthan has some beautiful stepwells too.

Banshidhar: Yes. Most of these stepwells were built adjoin places of worship. Of course there are small rain-fed ponds called pokharis scattered across the region. Some of these pokharis are also called Nadis and rainwater collects in these. And do you know...these ponds and lakes that saved the lives of our ancestors are still instrumental in saving ours!

Aanchal: Babaji, I feel that though our forefathers mastered the art of conserving water, these days no one is bothered about the need to save water.

Banshidhar: No, no child. That is not the case. Haven't you heard about Rajendra Singh?

Sumit: Rajendra Singh? Is he the one they call Waterman of India?

Banshidhar: Yes son, the same. He used Johars to bring water to the parched areas of Rajasthan. His team built Johars across thousands of villages. Some of these villages had been deserted because of the terrible shortage of water. Today you will see green crops in areas where farmers had given up all hope.

Aanchal: This is exemplary work.

Banshidhar: And the best part was that he used simple traditional techniques that had been perfected by our forefathers. It is just that the fast pace of modern life had led to their obliteration.

Sumit: This must have benefitted many villages!

Banshidhar: Of course! They got water for irrigation. The ground water table rose. And it also positively impacted other sources of water too...and in Rajasthan I can tell you this confidently...in Rajasthan many people...and organizations are actively involved in this crusade of conservation of water.

Aanchal: Thank you Babaji, for telling so many things.

Sumit: To tell the truth, Rajasthan...which faces such water scarcity, has a lot to teach us about community participation in water conservation. But we must take your leave. We want to visit other stalls too. Namaste.

Banshidhar: God bless you. Good bye.

Folk music of Rajasthan...fades out. Sounds of the crowd at Jal Mahotsav.

Aanchal: Bhaiya, we have used up so much time at just one stall!

Sumit: Look ...look Aanchal... it is Irfan Uncle and he is coming towards us.

Footsteps come close

Sumit and Aanchal: Namaste Uncle.

Irfan: How are you two? How are you liking the Jal Mahotsav?

Aanchal: It is great, Uncle.

Irfan: Let me join you.

Aanchal: That would be marvellous...there are so many stalls here.

Sumit: Indeed Aanchal... and what lovely music is being played over there.

Aanchal: Yes..yes let's go there.

Footsteps. Folk music of Uttarakhand...comes close.

Sumit: Aha...so this stall is from Uttarakhand. Look what a beautiful model they have made of the River Ganga as it emerges from the Himalayan heights.

Aanchal: This state is blessed with plentiful water. Why would it need to conserve water?

Sumit: Let's ask them...look there is a lady sitting there...and she even has a pot of water with her...let's go and talk with her.

Sounds of them walking towards the stall.

- Aanchal:** Namaste aunty. I am Aanchal and this is my brother Sumit. We would like to ask you about the water resources of Uttarakhand.
- Godavari:** What can I tell you about our water resources, children. We are facing such water shortages these days.
- Aanchal:** What did you say? Did you say water scarcity?
- Godavari:** Those days are history when the nuala and the dhara in the hills used to be full of water. These days it is a regular skirmish to get even adequate amounts for daily use.
- Aanchal:** What are nuala and dhara?
- Irfan:** Let me explain. About 60 per cent of the population living in the hilly regions depend on these nualas and dhaaras for their needs. **The tiny accumulations of water in rocky surfaces are called dhaara.**
- Aanchal:** And what is a Nuala?
- Irfan:** Nualas are designed to collect water from subterranean seepages or springs. This water accumulates in small pits or kunds that may be 3-4 feet deep. It is enclosed by walls and a roof is built above it. In the mid-Himalayan region you will come across many such Nualas.
- Sumit:** So why should this area have such acute scarcity of water?
- Godavari:** Well, if forests are cut down how can you expect water sources to not dry up? The forests are the source of water, aren't they? The population exploded and forests disappeared as a consequence...and finally it resulted in water scarcity.
- Irfan:** Absolutely correct statement. In the past, the hilly areas were densely forested and the population pressure was low. Thanks to the trees the water was continuously recharged...i.e, the amount used up was replenished soon.
- Aanchal:** What changed?
- Irfan:** Well, the forests started disappearing. The rain water no longer percolated into the ground but swiftly flowed downhill. The groundwater levels began to go down and the era of water scarcity began.
- Godavari:** You are so right Bahi sahib. Around a decade back, the rivulets and streams near my village dried up. Then the villagers planted trees like **Baanj** and rhododendron (Buransh) on elevated areas...thanks to these trees we have water in our village again.
- Irfan:** Did you know Aanchal, that the native trees such as Banj, Buransh and Udis...which are endemic to hilly areas are instrumental in maintaining the groundwater levels.

- Sumit:** This means that irrespective of whether it is the desert region or hilly area, if we do not advance in synergy with nature we will have to face the backlash.
- Godavari:** It will not be just us who will have to face this backlash but generations of humans will have to face it as well.
- Irfan:** Yes, very true. Now, whether you talk about the water resources of the Himalayan regions or the **Baoris** of western Rajasthan, it is clear that our forefathers recognized the importance of water and took good care to ensure the conservation of water resources. We too must do a lot along the same lines.
- Aanchal:** We can't build new **Baoris** now can we?
- Irfan:** Even if we cannot make new **Baoris**, we can all contribute to the conservation of water. We just have to ensure we do not waste water. For example, we should fix leaky taps immediately. We should only use just as much water as we actually need.
- Sumit:** Yes, for example instead of using a hose pipe to clean the car we can use a wet cloth and a mug of water.
- Irfan:** There are many other tiny steps we can take to lessen the impact of water scarcity in the future. In fact, you can see a peculiar attitude about irrigation these days.
- Aanchal:** What sort of peculiarity?
- Irfan:** Well if a farmer has installed a tubewell on his land, he uses it as if he does not owe anyone anything quite forgetting that the groundwater is a resource that belongs to everyone.
- Godavari:** Yes and since this farmer does not have monopoly on the water resource and does not own it, what right does he have to waste it? Look at the people who decimate forests by cutting down trees for firewood...in the end we face water scarcity!
- Sumit:** Auntie we must go now but we enjoyed chatting with you.
- Godavari:** Yes. Goodbye child.

Hill folksong fades/ Footsteps

- Irfan:** Look children, the situation is grave no doubt but we have to take steps to conserve water...it begins with the individual first. Then comes the efforts made by the family and finally, the impetus comes from society.

Aanchal: Yes I agree...and we would definitely not want a World War triggered by the need for water.

Sumit: I am thirsty I wonder if I could get a glass of water from somewhere...

Aanchal: I am thirsty too.

Irfan: (laughs slightly): Ok...Ok but Aanchal don't wage war with your brother over water.

All laugh...laughter fades.