

Episode - 47
India Energy Scenario I

The Energy Huts

Dr. Manas Pratim Das

Abstract: The episode deals about the energy scenario of India and various missions to Produce green energy.

[It is late night hours, and a party is going on in this settlement, a bustee, comprising of around fifty sheds. The dwellers earn their livelihood by working at nearby construction sites. Each house is nothing but an assemblage of corrugated sheets of tin, pillars of bamboo and rags. The houses are huddled together, and therefore very little sunlight can penetrate into the living rooms.]

(A man sings and another couple of a man and a woman dances to the tune) Gauri Tera Gaao baraa pyaraa, meinto hgaya maraa...

Baiju: (Trying to accompany the singer as he claps) We shall dance through the whole of the night!

(The dancing couple yells in joy 'Yes, yes, all night!')

Sunita: (Laughing) These people have all gone mad! Won't you have to attend to work tomorrow morning? Or has the contractor declared a holiday?

Sanju: To hell with the contractor! We shall dance all night! (Others laugh loudly at his gesture.)

Lakhan: How will the contractor understand what we have achieved?

Baiju: Yes, what will the bloodsucker understand? We will dance ...

Lakhan: Five of our children passing with first division marks in the secondary examination! Did any of us imagine this success?

Sunita: Gopal, Anju, Naina, Krishan and Sambhu have made us so proud! You are right Lakhan bhaiya, none of us imagined this...

Lakhan: Look at our houses! Is this a place to live? But see how our children toiled day and night in such a situation!

Rajni: (Old lady. Voice trembling) I am so lucky to see this day...

Lakhan: Why mausi, you always keep saying, Oh God, give me death and now what....haan?

Rajni: It's all the wish of the almighty that I am still alive to see our kids succeed in this way!

Anju: But Naani, one more person deserves your thanks for our success.

Sunita: You mean scientist Saab?

Anju: Of course Sunita Chachi! Had he not given us this wonderful solar lamp we would not have been able to study the way did!

Lakhan: Right Anju, right! Scientist Saab is an avatar of the almighty! Without him, we would only have had darkness!

Baiju: You are true Lakhan. Once you enter your room, you have to grope around to find your pitcher and your chappal!

Sunita: I was not at all convinced in the beginning... I thought that the dome with two wings is just a fancy object...it will mean nothing for us if it is fitted on our roof...

Anju: Two wings, ha ha...those are solar panels Chachi! Energy is generated when sunlight falls on those panels.

Baiju: What a magic thing it is!

Anju: No magic Baijuchacha, it is all very clever engineering! The design allows the battery to charge through the panels during the day. At the same time, sunlight is deflected and enters our room through the holes above.

Sunita: We get light both during the day and also at night. Our lives have really changed after scientist Saab gave us this light.

Sanju: Where will you all study now Anju? In the same school?

Anju: No chacha. This municipal school has classes up to ten only. We shall have to take admission in some other school.

Sanju: Oh I see. That means you will need some money. That is again a headache.

Sunita: Can the contractor help with some money for this admission? We shall work for a few hours more to compensate him. It's after all our children's future.

Lakhan: You must be joking Sunita! The fellow does not properly pay us our dues at the end of every week, and you are dreaming of help from him.

Sunita: But some way must be found. But now let us return to our rooms. And Lakhan, don't forget to douse the fire in the middle.

Rajni: Yeah, do that Lakhan. Remember, what happened last year during winter? Someone had left some fire burning near Sunita's hut, and the walls were about to catch fire. Had Sunita not noticed in time, our whole bustee would have been burnt to ashes.

- Lakhan:** I remember clearly. Give me that pot of water Anju.
- Rajni:** Don't spoil too much water you lazy fellow! Last week the supply was very poor. We had to suffer so much!
- Lakhan:** Ok ok, enough! I shall do as you say. Now someone, please take Rajni Chachi to her room or she will just chew away my brain.
- Sunita:** Let's return. We have to attend work tomorrow.

Everyone is still in a celebratory mood as they amble across to their respective rooms.

(End of scene)

[**Next scene.** It is a television studio. The producer Majid is tensed and is pacing up and down the corridor. The anchor Tanaya is getting final touches to her make up. Camera and lights are being moved into position.]

Tanaya: There were shadows under my eyes in the last show. All my friends have told me that. Put a little more ruse here...yeah, just like that. Where is Babool? I need some more tea.

Babool: Here I am Tanaya madam, at your service. Don't I know that you can't start talking before you gulp down at least four cups of tea? Here is your tea. (Sound of tea being poured.)

Tanaya: Shut up you blabber! Just do your duty.

Babool: What else am I doing. I have already served three cups of tea to producer Saab. He is another peculiar character, madam. Gets so tensed if the artist is even a shade late.

Tanaya: You fool, you will understand nothing! Majid has to shoulder all the responsibilities. If the programme does not go on air, he will have to be answerable.

Babool: By the way, who is the artist today madam? I heard that our great Subir Kumar is going to make an appearance in our show this week!

Tanaya: We shall have a scientist today in our show. No films, no music.

Babool: Oh scientist! I have no faith in them. Absolutely not.

Tanaya: (Giggles as she sips tea) where did you meet a scientist Babool? I have never heard you talking about anything but films and cricket matches!

Babool: You can say whatever you like, but I don't believe that scientists can do anything.

Tanaya: (Laughs loudly this time) what is the issue Babool? Why are you so angry?

Babool: What to say, madam! Two years back they had set up those large black panels in our village and assured us that we shall have free electricity round the clock. But what is the situation now? No light, no fan...nothing. Nothing is working!

Tanaya: Oh, you mean solar power gathering panels? There must have been some malfunction...

(Majid peeps in from the corridor.)

Majid: Our scientist is arriving in a minute Tanaya. Have you gone through the points?

Tanaya: Don't worry Majid. I have rehearsed the questions.

Majid: Remember that we need to give a detailed picture to the viewers. Statistics are fine, but along with that, we shall also go into some personal stories.

Tanaya: Absolutely Majid. I know about the work that he has done in the North East. I shall refer to that.

Majid: And also the conflicts over nuclear power...ah, here comes Dr. Basu! (He moves away to receive the scientist)Welcome sir, I hope you had no trouble on the way.

Basu: Sorry Majid, I am a bit late. I shall tell you about the reason but let us have the recording done first. Is everything ready?

Majid: Absolutely ready sir. Would you like to have a cup of tea before we start?

Basu: I don't mind, provided it does not delay your session further.

Majid: Not at all sir. Hey, Babool brings a cup of tea.

Tanaya: Hello sir! I am Tanaya, and I shall anchor the show today.

Basu: Hello Tanaya! How are you?

Tanaya: I am fine sir but...

Basu: But what?

Tanaya: Our Babool is not at all happy. He says his village is still without electricity even after solar panels were installed there.

Basu: (Thinking for a second) Umm...Babool does have the right to be angry Tanaya. Many of our villages are still without electricity, even though more than seven decades have passed after we gained independence.

Babool: Your tea sir.

Basu: Thanks Babool. Where is your village?

Babool: I come from Andhra sir. My village is in the western part.

Majid: But ...I do not know, I mean I had gone to that part for shooting a documentary, and I found some villages that are enjoying electricity!

Basu: Yes of course. You can not put all the villages in just one bracket. The country as a whole has made great strides in recent years. You will be delighted to know that the World Energy Outlook report of 2018 mentioned that for the first time the total number of people without access to electricity fell below one billion.

Tanaya: Yes, I was looking at some data provided by the government, and it said that a large number of households had been connected to the grid in Uttar Pradesh, Bihar, Madhya Pradesh, Rajasthan, and Jharkhand.

Basu: Dear Majid, your anchor, is very smart! I really appreciate the homework that she has done. But Tanaya, we have to look beyond statistics. We all know that figures on paper or on the computer screen cannot tell the true story of human lives.

Tanaya: You mean to say, sir, that the example of Babool is not an isolated one!

Basu: Precisely so. Electricity can increase productive hours in a household leading to economic well-being. More than that, it makes the use of fuel like kerosene redundant. You know pretty well that burning kerosene has already done irreparable damage to the environment!

Majid: After so many years I think the use of kerosene is also on the decline sir!

Basu: You are right Majid. See, successive governments have been aware of the harmful effects of kerosene. But people will use it if you don't give them an alternative. Our LPG cylinders are the alternative that has largely reduced the use of kerosene in our country. According to the data given by the Petroleum Planning and Analysis Cell, annual kerosene consumption fell by over twenty percent in 2017 alone.

Tanaya: Sir, can we count the LPG coverage in percentage?

Basu: I am so impressed Tanaya. You speak like a pro! No need to blush, I am giving you the figure that you want. In the beginning of 2018, the national LPG coverage was around seventy-two percent. The figure has improved after that.

Majid: Sir, may we move into the studio now?

Basu: Yes of course. Thanks for the tea. I feel refreshed. Let us move.

(Scene change)- We follow Prof Basu to the same old bustee wherefrom we started this story. He has not informed the dwellers of his)

Lakhan: Arre scientist Saab! What a surprise! Why didn't you say that you are coming! I gave you my phone number, no?

Basu: Yes you did Lakhan, but I wanted to give a surprise!

Lakhan: Have you heard about the success of Gopal, Anju, Naina, Krishan, and Sambhu?

Basu: Yes of course and that is why I am here. I have brought some gifts for them. Where are they?

Lakhan: They have gone for tuition, but I believe that they will return soon.

(All the others slowly gather around Basu. Someone brings a stool for Basu to sit.)

Baiju: Please be seated sir. I shall bring some tea for you.

Basu: Don't bother Baiju. I had tea just half an hour ago. I have come to meet the kids.

Sunita: Can you see sir how rooms are lit up! It's your credit only.

Basu: (Laughing) Don't give all the credit to me. In fact, it's a national mission, and I am a part of it.

Sanju: You mean the missionary school, sir? Are they helping you? Yeah, I can understand, it's a big school, big campus!

Basu: No, no Sanju, you are mistaken. I said that it is a mission for the nation! Ah, there comes Anju, Gopal, and all my bright kids!

Kids: Scientist Saab, when did you come?

Anju: Why didn't you inform us before that you are coming?

Basu: Ok ok, I admit that I am guilty but now come here and see whether you like these gifts!

Kids: Yeh, gifts!

Anju: Lives of famous scientists! I love this book. Thank you, scientist Saab!

Basu: You are most welcome!

Sunita: Anju, go inside and keep your gifts in a proper place. What mission were you telling us about scientist Saab?

Basu: It's the National Solar Mission. The mission was launched in 2010 with a target of twenty gigawatts of solar power.

Baiju: Gi...what?

Anju: I shall explain Baijuchacha. Just like you take water by liters, one liter, two liters, similarly, you measure electric power by watt. Gigawatt is just lots of it. About one hundred crores of a watt.

Basu: I can see that kids of this Bustee is really doing well. Anyway, the use of solar power is linked with our effort to resist climate change.

Sanju: Climate change? You are absolutely right scientist Saab! Last two season we had very little rain in our village. I can understand...yes, climate change.

Basu: Scientists warn us not to jump to a conclusion like this Baiju. Having insufficient rains for a couple of years could be a normal variation.

Baiju: So, no change in our village?

Basu: Aha, how to make you understand...see, climate change is not something that one or two villages face. It is affecting all the people around the globe.

Baiju: All the people having poor rains?

Basu: For you, it might be poor rains, for others, it could be successive floods, and for others, it could be frequent cyclones and hurricanes!

Baiju: But our village...

Anju: Chacha, climate change takes place over many many years. But now that is becoming easily noticeable. Scientist Saab is not saying that poor rains at your village is not linked to climate change. But scientists can confirm only after observing the pattern for several years!

Anju: You are right Anju! But what I was trying to clarify is that our solar mission will ensure that we reduce the release of harmful gases into the atmosphere and therefore the atmosphere will not heat up excessively.

Sunita: The solar light that you have given us emits no gas at all. I can understand what you are saying!

Basu: Good! In the Union Budget of 2015, the target was revised to one hundred gigawatts. This will be achieved by the year 2022.

Anju: Isn't that a tough target scientist Saab? I mean, we all are in favor of it but will it be possible to have so much of solar power within this time?

Basu: Once again you have impressed me Anju. There is no doubt that it is a very tough target but what choice do we have now but to switch over to non-conventional energy? We also want to put our country ahead of everyone regarding solar power generation.

(Rajani arrives helped by another woman.)

Rajni: I can't move scientist Saab properly but since you have come I asked my daughter to bring me here.

Basu: Oh, why did you take the trouble? I could have gone to your room.

Rajni: Of course you can do that some other day. I have brought some curd for you. I prepared it myself. Please do not say 'no'! We are very poor, but I cannot see you leaving without having something.

Basu: That is lovely. I know the curd will be very tasty!

Rajni: Praise me after you taste it. These days I am not able to do what I want to. My vision is also becoming weak.

Anju: All that means Rajni Dadi is looking forward to lots of appreciation from you! Just 'good' or 'very good' won't do scientist Saab!

Rajni: You naughty little goblin! Always up to some mischief!

(Everyone laughs at the exchange.)

Sunita: Anju, why don't you ask about that coal incident!

Basu: What incident?

Anju: Arre yes scientist Saab. I was watching the news on television in that electronics showroom, and I suddenly saw some photographs of mine in Meghalaya. They were calling it to rat something. I didn't get the term properly. The newsreader said about fifteen people were trapped in that mine.

Basu: It's rat hole mine Anju. The entrance to such mine is very narrow, and once you enter, then there is absolute darkness. Light from outside cannot penetrate into the mine. What you saw is true. Fifteen laborers had been trapped in a mine in a rat hole mine in the Jayantia Hills.

Sunita: That is a dangerous scientist Saab! Why do they work there?

Basu: It's all for survival Sunita. But let me tell you that rat hole mining was banned in 2014. However, it is still practiced in Meghalaya. You will find a good number of such mines in the East Jayantia hills. All of these are privately owned mines.

Anju: Coal is very precious, no scientist Saab?

Basu: You sound almost philosophical! How can you ignore the importance of coal? Our country is the world's third largest coal-producing nation, and again coal provides about sixty percent of our energy needs.

(Rajani suddenly starts to sob. Basu is surprised.)

Basu: What happened Chachi? Is anything wrong? Are you feeling unwell? Sunita, why don't you take her to her room!

Sunita: Don't be upset scientist Saab. Today is Rajni Chachi's son's birthday.

Basu: Oh, I see! That is wonderful. So, where is your son? Ah...I can now understand the mystery behind this curd. (Tastes a little) It's delicious. But why are you crying Chachi? Ok, let me guess...umm...your son must be working somewhere far away, and you are missing her today, right?

(Rajni Chachi cries aloud.)

Basu: I can't understand anything. Have I said something wrong?

Sanju: It is not your fault scientist Saab! It's all our fate! Poor people like us...what can we do...

Basu: (Murmurs) I am really getting confused.

Anju: Let me explain. Rajni dad's only son had gone to work in a coal mine in the south. One day while he was working with three other persons, a large chunk of the roof came off, and all of them were buried...(Anju starts to sob now.)

Basu: (Almost whispers.) I see. He died in the mine!

Baiju: Rajni Chachi's husband could not bear the shock. He had a heart attack on hearing the news and passed away immediately.

Basu: Where are Rajni Chachi's other children?

Sunita: She has one more son and two daughters. All work at another construction site, just like we do. It's about five kilometers from here.

Basu: I do not know how to console Chachi. In fact, I doubt whether there is any way to console a mother who has lost her son.

Anju: Coal is very costly scientist Saab! It takes away lives.

Basu: I can understand your pain Anju. A hazard at the workplace is a serious issue. It can never be ignored. Even your construction sites are not always safe to work.

Sanju: Who knows that better than the way we do, scientist Saab!

Basu: But the mines hold dangers of a different sort altogether. We have laws in place to protect the miners, but we also have owners who choose to ignore safety rules.

(Everyone is silent.)

Basu: It is getting late. I have to go. But today I am leaving you with a heavy heart. I can only hope...I mean it may sound quite awkward at this hour...but I really believe that a day will come when we will meet our energy needs from the blazing sun and moving winds. A day when we will have no martyrs sacrificed at the altar of fossil fuels...sounds bizarre today, I know but still...

(A suitable music to capture the melancholy fades in and rises.)