

# Earth in crisis: environmental policy in an international context

Bangladesh: the issues

## **Penny Boreham**

Hello, I'm Penny Boreham and I'm here to chair a discussion about some of the important issues arising from the material in the album. I'm joined by Earth in Crisis course team members Dave Humphries and Jessica Budds and we also welcome Mariam Rashid who was involved along with Dave and Jessica in making the film in Bangladesh. She is herself from Bangladesh and is presently researching how communities there are adapting to the effects of climate change in their lives. Hello to you all.

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Hello.

## **Penny Boreham**

Dave, the film made in Bangladesh reveals two frighteningly polarised and extreme situations in the country – one is drought and more in the north and the other in the south is increasing storms, wind and rain which are leading to, amongst other things, increased salt in the water and the film reveals that both situations have become so extreme because of climate change – is that right? And both are devastatingly threatening food security.

### **Dave Humphries**

There's increasing evidence that climate change is leading to a range of environmental effects around the world and these play out in different ways in different parts of the world. Now in Bangladesh the north of the country has become increasingly prone to drought and shortage of clean drinking water. The south of the country is afflicted in a very different way. It's very low-lying and adjacent to the coast and it's prone to flooding. It's always been prone to flooding but what climate change scientists are now finding is that the country is increasingly prone to extreme weather events, such as storms and cyclones. Now part of the problem is that over the long-term throughout this century there will be increased sea level rises in the south of Bangladesh as indeed there'll be in most coastal regions around the world. That's not the problem at the moment. The main problem at the moment is that this increased stormy weather and cyclones is leading the saline frontier, the salty water from the sea, in other words, to encroach inland up rivers. Now what we found when we visited Bangladesh to make this film is that in Khulna district following a storm in 1988 the salty water was pushed in from the sea and when the floodwater subsided the composition of the rivers had changed from freshwater to saline and that's posed a massive threat to the people of this district, they've had to adjust to this change in their environment. Their land has become increasingly saline, they can't grow the crops they used to grow and their water has become more salty and it's not suitable for fresh drinking water. People are now having to walk further to get fresh drinking water and they cannot grow crops such as rice in the fields that they used to able to, they've had to change their farming practices.

#### **Penny Boreham**

We hear and we see terrible images of people having to adapt and change and telling their stories and Mariam – for the purpose of this film one of your roles was to use your experience to identify individuals who could share how climate change how affected their lives at a local level. How hard was this or would you say that absolutely everybody in those areas in the south that Dave was just talking about are affected?

#### **Mariam Rashid**

No, it was very easy to find actually and it was easy to find people whose lives have been affected and really easy to find, you know, community-based organisations who've actually worked with these people on a day-to-day basis in trying to improve their lives and find alternate livelihood methods for them. So we see like people even in 2001 and 2000 had

been affected by climate change. They probably can't tell you the exact science about it if you ask them like what is climate change – they won't be able to tell you. But if you ask them like what are the changes that you are facing – what are the situations that you have gone through, like what do you face now that you didn't face ten years ago – and they will tell you straight away. They'll tell you like their crop production hasn't been good due to saline water, the water in their wells are getting more saline as days go by, they'll tell you like even now when they have like once a year cyclone, maybe in ten years, they're facing like more severe cyclones very frequently maybe – one in every like two, three years' gap, people say like they were like three cropping cycles in a year – now that has shifted and they've actually had to change crops to adapt.

### **Penny Boreham**

Was there any one individual who you would have really liked to have included that showed another aspect than we saw in the film?

#### Mariam Rashid

There are some people who actually have bought up land inland, a bit away from the coast, that wasn't salinised before and they've started shrimp cultivation because that is very profitable and they've actually dug channels to bring in more saline water and sort of flood those fields with saline waters. So the people who actually want to grow rice on their little patches of land have no other choice but to convert to shrimp cultivation because the other surrounding areas have flooded their land with water. The shrimp production was going on in the coast in an intensive way and then some influential people thought they'd make more money out of it by flooding already good farmland that wasn't saline before, but now that has become an increased problem because now they seem like salinity has intruded even further and they are actually losing production because it's becoming more and more saline with each increasing storm surge.

### **Penny Boreham**

So the social effects, the knock-on social effects are enormous – the fact that now because of people moving and trying to sort of, in a way, cash in on the shrimp production, then it's affecting other people. Is this something that is true Jessica generally, of the sort of knock-on social effects of this whole situation?

#### Jessica Budds

I think what we can say is that the poorer people, whose livelihoods are already vulnerable, will become more affected by climate change. For example, people who rely on small farming to bring in money for their families; people who rely on water from small wells rather than household supply - as those sources become fewer and further between, and as they become saline, people have to walk further to obtain water and this, of course, affects predominantly women, who are largely responsible in Bangladesh for collecting drinking water and it's difficult to transport large quantities of water over a large distance, so it's not just the fact that Bibi Jan had to walk three hours to collect water, but the fact that when she got there the amount of water that she could carry was actually quite small and probably not sufficient for her family's entire needs.

## **Penny Boreham**

In terms of adaptation, Mariam and dealing with this salinisation, what do people living in the situation believe the priority is?

### **Mariam Rashid**

They do want the government to do something to help them, but at the same time they're not just stuck in the situation – they are doing whatever they can to help themselves and basically the Union Parishad chairman, which is like actually the lower level of government, they are actually taking an active role in trying to find out adaptation methods and though the people are waiting for something concrete, as in like adaptation policy that is going to help them better their lives, but they are doing what little they can to adapt because in the end you have to survive.

#### **Penny Boreham**

Are there other situations where they've managed to work the situation already without government help?

#### Mariam Rashid

Yes, they have actually and like in the absolute southern part of the country since it's a tidal flood plain it floods and the people in that area for years and years have actually had floating gardens where they grew their vegetables, so if the water rises the garden rises with them. So they have their vegetables, they have rice, they have turmeric and cucumber and all sorts of things planted in this area, so like some non-governmental organisations and community-based organisations have seen it and taken this technology further inland where they are facing more flooding and water-logging now, so people inland are doing that when the floods come in, so they have a source of food, they have a livelihood when they can't farm on their land.

#### **Penny Boreham**

But I suppose in terms of drinking water that's still a problem?

#### **Mariam Rashid**

Yeah, because like the wells are getting more saline and also on the southern coast of Bangladesh we have a problem with arsenic in the water, in the well water, so basically right now water resources are in a very bad state in that area.