

Using climate information to protect vulnerable populations in Bangladesh

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As part of the ACToday project, Melody Braun helps to bridge the gap between climate information and vulnerable communities. Credit: Dannie Dinh

While traveling to Europe, Asia, and Africa as a graduate student, Melody Braun saw the effects that climate change was already having on

vulnerable communities, and she realized that she wanted to work closely with these communities. Now she is a senior research staff associate at the International Research Institute for Climate and Society (IRI) at Columbia's Earth Institute. She is also one of the six country leads on a project called Adapting Agriculture to Climate Today, For Tomorrow ([ACToday](#)), which is led by IRI and supported by Columbia World Projects.

Braun is helping local partners in Bangladesh make more [informed decisions](#) by improving their access to and use of climate [information](#). ACToday is introducing [state-of-the-art climate information and prediction tools](#) in five other countries as well: Ethiopia, Senegal, Colombia, Guatemala, and Vietnam. It aims to improve the production, translation, dissemination and use of climate information.

After graduate school and before joining IRI, Braun worked for three years for WorldFish Bangladesh, a research center part of the Consultative Group for International Agriculture Research (CGIAR) that addresses hunger and poverty issues through aquaculture and fisheries.

At IRI, Braun serves as a liaison between climate science and society. We sat down with her to learn how she helps bridge that gap in communities that are vulnerable to [climate change](#). The conversation has been edited and condensed for space and clarity.

Q: How did you get inspired to work in the climate change adaptation sector?

A: During my graduate education, I had the opportunity to go to the United Nations Copenhagen Climate Change Conference in 2009 for a volunteer project. I met with a lot of farmers who had been accredited but could not get inside the conference center because of poor

management and lack of space inside the conference center. They were saying, 'We experience climate change every day in our lives, in our countries, and we are here to talk about it, and they won't let us in.' It raised some questions in my mind. I realized that I should look more into what's happening in these countries. Then, I did my internships on adaptations to climate change in Cambodia and Togo, and wrote a thesis based on Senegal, and from there, I ended up working on adaptation, climate information, and finally climate services.

Q: You've visited the Bangladeshi camps that house Rohingya refugees from Myanmar. How did you make the decision to go to the refugee camps, and why did you think about strengthening the climate services in this sector?

A: When we presented our Bangladesh climate services work in a conference in Dhaka in January 2018, someone said that it would be useful to look into the Rohingya crisis, as there was a whole community of humanitarian workers who were not necessarily aware of where to find the right climate information to address and prepare for situations such as landslides during the monsoon season and flooding during cyclones. I went with my colleague Andrew Kruczkiewicz, to better understand the type of preparedness actions that could be taken, the types of climate information that were used and what could be needed to improve preparedness. I had never been to a refugee camp before; it was definitely a very strong experience.

Q: What was it like in the refugee camp?

A: The mega camp had approximately 600,000 people, which is the biggest refugee camp in the world. It is extremely well-organized.

It's a hilly area, where the trees were cut to make space for the tents. So, the area was extremely vulnerable to potential landslides and flooding. During the rainy season, water quality and sanitation were major issues, since a lot of latrines were not respecting international standards and there was a high risk of latrines contaminating tube wells. The shelters were made of plastic and bamboo, and hence they were not resistant to strong rainfall and winds.

Despite the huge challenges, I have to say I was impressed by how well the crisis was managed. We're talking about one of the fastest growing refugee crises in the world, in one of the most densely populated countries in the world.

Q: Do the staffers in the refugee camps recognize the importance of climate information? What are the barriers that they face in using the climate information?

A: They do, for sure. Climate information is something that would have an impact on all the other sectors, such as food distribution, health care, women. There is a very high demand for accessing and using climate information.

There are a lot of people who are sending climate data to the camp managers, to the organizations working there, and sometimes when it is out of context, it is not necessarily useful. It can be confusing and potentially harmful if it is not used in the right way. So, there is huge concern from the organizations in the camps about the availability of good quality data and how to link the data to specific decisions.

Q: Some climate phenomena, such as El Niño, last for

9-12 months, whereas other processes, such as the Madden-Julian Oscillation, last for shorter time periods. How do you incorporate these different timescales into the climate services that you are developing?

A: That's a good question. What we are trying to do is to identify a range of concrete decisions that are made in different sectors that require climate information or can be improved if people have more access to climate information. From this range of decisions, we are working to identify the decisions that require short-term weather information, and those that require more subseasonal, seasonal or longer term information. Then, we work with the national meteorological service and with other relevant stakeholders on how to best provide this information at different timescales.

Q: While implementing climate services, how do you make sure that the rural communities get complete access to the climate information?

A: We don't work directly with communities, but we work with agencies and partners who do. For example, the Department of Agricultural Extension of the Ministry of Agriculture provides advisories to farmers on a regular basis. By working with them on how to better translate weather and climate information into agricultural decisions, and how to better integrate this information into advisories, you reach farmers in a way that is built into the national system in a sustainable way.

Q: How effective is it to use mobile services for climate information dissemination?

A: We are using mobile phones in some other projects. I think it's good, but it's not a standalone service, as it requires training, and preparation to interpret and use the information. Access is important, but it is not sufficient if people don't know what to do with the information they are receiving. In addition, in Bangladesh mobile phones are mostly used by men, as there is usually one [mobile phone](#) for the whole family, and it's usually the men who have it. Therefore, there is a risk of excluding women. I think it is good to use these strategies, but we need to have complementary strategies so that we can make sure that we are not limiting the access to information for people who cannot afford the service. So, definitely, more and more people are using the mobile phones and apps, there is a lot of potential, but still there is a lot of work to do.

Q: After witnessing the Bangladesh refugee camps, and having worked in multiple projects in the climate adaptation sector, did it change your perspective on how to better implement and use climate services?

A: The experience in the [refugee camps](#) definitely made us realize that the integration of climate information is not systematized in the processes of lot of the organizations. There is definitely an interest, and an awareness, to use climate information, but currently there is no system in place which allows them to do it systematically. If we manage to make the service more systematic, it would allow us to replicate it in other crises in other areas as well.

Through my work at WorldFish and IRI, I see a growing interest and growing opportunities, but also a real need to bridge the gap between [climate](#) science and other sectors—policies, agriculture and development, humanitarian crises.

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