

Testing climate and agriculture policy against future scenarios

Decision makers strengthen national plans by envisioning multiple possible futures.

Picture Bangladesh in 2050. The low-lying coast is pounded by rising seas and storms even worse than scientists predicted early in the century. Millions flee to overcrowded cities. The growing urban population overwhelms energy, water and sanitation services. A small, privileged elite controls all natural resources, dominates business and drives a boom in expensive private health clinics and security services. The gap between rich and poor keeps growing.

Now picture a different future. Long considered one of the most vulnerable countries in a warming world, Bangladesh also had a head start in building resilience from the bottom up. By 2050, after difficult structural reforms, democratic and efficient governance systems are in place. Communities shape climate-smart policies and hold the government accountable. The industry and service sectors lead the economy, and a solid base of infrastructure, knowledge and regional trade relations sets the stage for ongoing sustainable development.

Both futures are plausible and both should drive policy making, according to Bangladesh's national Planning Commission. In 2014, planners from the commission met with the UN Development Program, the Dhaka-based International Centre for Climate Change and Development (ICCCAD)

and other country experts to create a set of four such narratives, guided by the Future Scenarios team from the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) and the University of Oxford. The group jointly brainstormed policy strategies that could promote brighter futures while avoiding potential nightmares — and discussed how to incorporate those interventions into the government's 5-year development plan for 2016-2020.

The Future Scenarios team has organized similar processes around the world. "The value of the method is that it goes beyond trying to forecast one idea of the future," says Joost Vervoort, lead scenarios researcher at CCAFS. "It's really opening up people's ideas about what could happen. And it's a way of bringing in many diverse perspectives and allowing them to talk to each other."

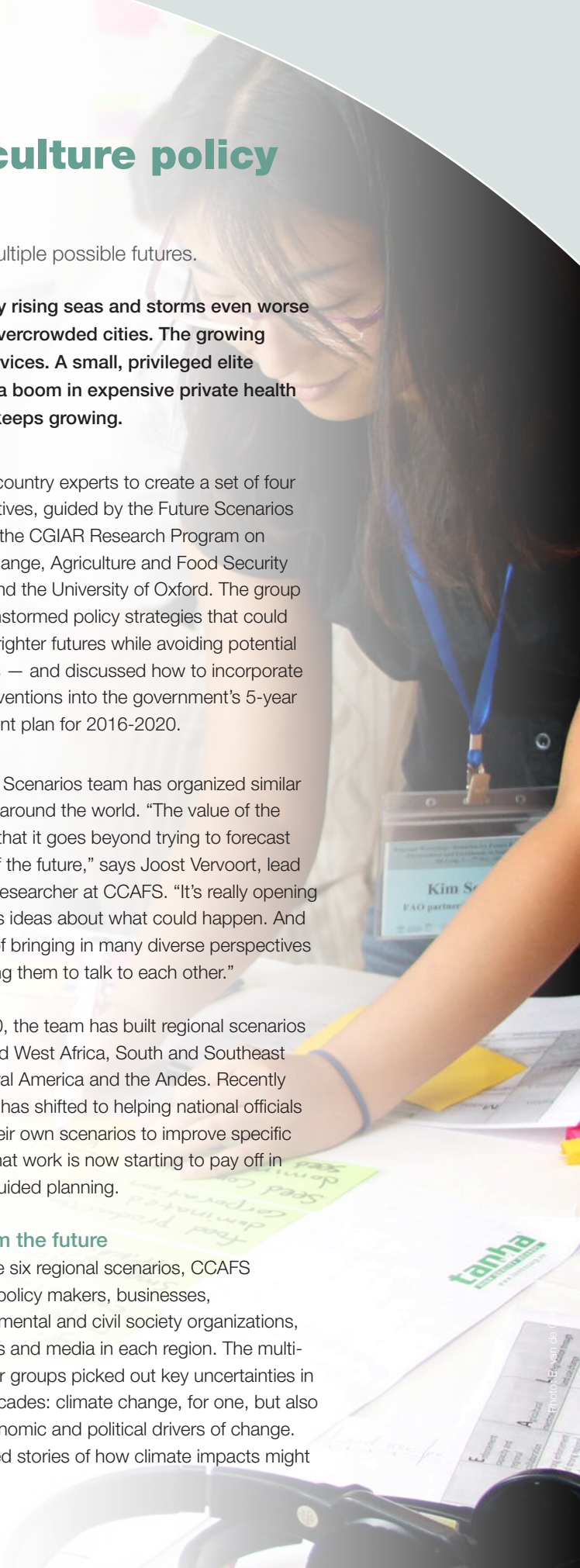
Since 2010, the team has built regional scenarios for East and West Africa, South and Southeast Asia, Central America and the Andes. Recently their focus has shifted to helping national officials develop their own scenarios to improve specific policies. That work is now starting to pay off in scenario-guided planning.

Tales from the future

To build the six regional scenarios, CCAFS convened policy makers, businesses, nongovernmental and civil society organizations, researchers and media in each region. The multi-stakeholder groups picked out key uncertainties in coming decades: climate change, for one, but also social, economic and political drivers of change. They crafted stories of how climate impacts might

Fast facts

- ▶ With CCAFS support, diverse groups of stakeholders in six regions worldwide have created detailed scenarios picturing a range of possible futures for their regional climate, economy and society.
- ▶ National policy makers are working with CCAFS and the University of Oxford to reimagine the future scenarios in the context of their own countries and policy goals.
- ▶ Seven countries are using scenarios to test and revise major climate and agriculture initiatives.



What's a scenario?

Scenarios are not predictive forecasts. They are imaginative “what if” accounts that help partners acknowledge unknowns and visualize widely different but plausible future worlds.

Scenarios help policy makers ask what needs to happen today to achieve goals in an uncertain future. They can redesign plans to avoid catastrophes and seek “no regrets” options that work regardless of which scenario plays out.

Using scenarios to revise adaptation plans

When agricultural planners from Honduras put their climate adaptation strategy under the lens of future scenarios, they saw gaps they hadn't noticed before. Marieke Veeger, the CCAFS scenarios coordinator for Latin America, reflected on the workshop:

The group came up with several items that had to change in the current strategy, such as the lack of long-term adaptation techniques and focusing too much on the national shrimp industry. It quickly became clear that the strategy had to include other types of livelihoods, such as cattle and poultry businesses. Participants also suggested including territorial planning to guarantee the most fertile lands for agriculture, since several scenarios showed drastic urban expansion. I was really happy to see that the participants, some of whom had led the strategy work themselves, were so open to the suggested changes.

combine with shifts in populations, power structures or financial flows. Then they collaborated with modellers to quantify, model and refine four future scenarios. Food security trends were projected with a model called IMPACT from the International Food Policy Research Institute (IFPRI), while the GLOBIOM model from the International Institute For Applied Systems Analysis (IIASA) added land use patterns. The final stories were told with words, numbers, maps, and in some regions, evocative images or interactive learning tools.

Participants have learned a lot just by developing the regional scenarios together, but CCAFS also wants to see a direct impact on policy. Many decision makers, too, are eager to test their climate policies and food security plans against the scenarios they envisioned. When officials want to future-proof a policy draft, the CCAFS team helps them gather relevant stakeholders and build a new set of customized scenarios. Using the regional stories and models as a starting point, national actors like the Bangladesh Planning Commission can reimagine their country's future in their own terms, and then re-examine plans in that context.

Through this process, scenarios are making a mark on national initiatives in all six regions. Bangladesh's draft 5-year plan — set for a second round of scenario-based review later this year — is one high-level example, along with policies on climate action, adaptation and agriculture in Burkina Faso, Colombia, Honduras, Tanzania and Uganda. An early champion was Cambodia, where officials worked closely with a CCAFS regional coordinator in 2013-2014 to shape a scenario-based Climate Change Priorities Action Plan.

CCAFS is learning from these countries how to translate future scenarios into immediate action. The lessons are highly in demand: almost all 25 nations involved in the regional scenarios are interested in taking the approach further.

Building capacity

As interest mounts worldwide, future scenarios could be ripe for mainstreaming. CCAFS has partnered with Oxfam, the UN Food and Agriculture Organization (FAO) and several other global players to develop scenarios for their programs and spread the methodology. Requests are coming in from governments to train teams in scenario-guided policy making, and over the next two years CCAFS will increasingly invest in these capacity building efforts.

The secret to success, says Vervoort, is making it clear that scenarios are not a conclusion for decision makers to swallow, but a process for them to lead. “Once you communicate that, you see resistance and reservations disappear, and people are really excited about it.”

To find out more about Future Scenarios please visit:

<http://ccafs.cgiar.org/scenarios>

About CCAFS

The CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) is a strategic partnership of CGIAR and Future Earth, led by the International Center for Tropical Agriculture (CIAT). CCAFS brings together the world's best researchers in agricultural science, development research, climate science and earth system science, to identify and address the most important interactions, synergies and tradeoffs between climate change, agriculture and food security. www.ccafs.cgiar.org

CCAFS is supported by CGIAR Fund Donors, Danish International Development Agency (DANIDA), Australian Government Overseas Aid Program (AusAid), Irish Aid, Environment Canada, Ministry of Foreign Affairs for the Netherlands, Swiss Agency for Development and Cooperation (SDC), Instituto de Investigação Científica Tropical (IICT), UK Aid, Government of Russia, The European Union, New Zealand Ministry of Foreign Affairs and Trade, with technical support from the International Fund for Agricultural Development (IFAD).



Photo: P. Vishwanathan / CCAFS