

It began with Rio. At the 1992 United Nations Earth Summit in Rio de Janeiro in Brazil, 171 countries came together to hammer out global rules to slow down climate change and halt the loss of biodiversity. Then, as now, international meetings on environmental issues see developed countries pitched against developing ones. At such meetings it is all too easy for jaded commentators, and even participants, to conclude that little of consequence would result. Yet they can inspire individuals to take actions that have a lasting effect.

“Rio was a real turning point,” says Saleemul Huq, plant biologist and founder of the Bangladesh Centre for Advanced Studies in Dhaka, and now head of the climate change group at the International Institute for Environment and Development in London. “The Rio meeting acted as a wake-up call to developing countries that we needed to raise our game.”

During the heady days leading up to Rio, scientists and government officials from developing countries witnessed first-hand the power of scientific research in helping to inform and change policies. They saw, for example, how the talks on climate change needed a consensus, not just from politicians, but also from scientists. And they discovered that delegates from richer countries had access to environmental expertise from government, industry and academia.

Huq recalls that before Rio, environmental problems were viewed as a direct result of pollution. And because Bangladesh had little industrial pollution in those days, he was told by politicians and policymakers: “Why the need for environmental policy research?” That started to change, he says, with the floods of 1987–88 when they learned that natural causes alone had not caused the flooding. This led to a big debate about possible causes, including deforestation, and ultimately the human activities discussed at Rio.

Rio was also a turning point for biologist Cristián Samper, founder of the Alexander von Humboldt Biological Resources Research Institute in Bogotá, Colombia. “Rio is why we decided to establish a new national institute as a joint venture between the government, universities, non-governmental groups and the private sector,” he explains. The Humboldt institute was set up in 1995 to foster scientific research in support of environmental policy.

Today, these and other institutes owe their

existence to fiercely driven individuals — each fired-up with a desire to harness the best available knowledge to solve their countries’ environment and development problems. The success stories include Huq’s centre in Dhaka, Samper’s institute in Bogotá, the African Centre for Technology Studies (ACTS) in Nairobi, Kenya, and the Sustainable Development Policy Institute (SDPI) in Islamabad, Pakistan.

The founders of these four institutes were all young — from 29 to 43 years in age. But they weren’t idealistic hotheads unprepared for the realities of building independent science-policy institutes in Africa, Asia and Latin America. They had all received postgraduate education in the United Kingdom or the United States. They were also well-connected at home and abroad, and had good access to funding.

They also needed resilience in the face of scepticism from international donors, from bureaucrats unable to see how good science could make for better policy and from scientific peers who were fearful of politics (especially those living in dictatorial regimes). Two decades later, their institutes are still in business — although, in every case, the founders have moved on to high-status positions elsewhere. As a model of sustainable development the attendees at Rio could hardly have wished for more.

Launch fund

The Rio meeting was also a major event in the life of Kenyan-born Calestous Juma, now a professor at Harvard University’s John F. Kennedy School of Government in Cambridge. Back then, he was working as an adviser to the team drafting the text for the United Nations convention on biodiversity. He saw first-hand the interplay of science and politics as nations argued, horse-traded and made compromises to agree a final text in Rio. The experience reinforced his wish for Africa to join other countries in making policies on the basis of evidence.

After gaining a PhD in science policy at the University of Sussex, UK, Juma had returned to Kenya in 1987, when the country was under the one-party rule of President Daniel Arap Moi. “The original idea was to work with existing centres,” Juma recalls, “but this turned out to be too difficult.” He was forced to create a new

institution to enable true cross-disciplinary policy research.

Today, that institution — ACTS — is one of Africa’s leading research institutions and a source of independent advice to governments and international institutions on biotechnology and agriculture. But 20 years ago, scepticism among international donors meant that the centre began life in its founder’s spare bedroom.

The launch funds came from the remainder of Juma’s PhD scholarship, a US\$2,500 donation from the Mennonite community of Nairobi and a \$50,000 grant from the Ford

Foundation. “The Mennonites were my first real sponsors,” says Juma. “They have a reputation for being against the modern world, but what they oppose is consumption and they value innovation and creativity.” Reasons enough, it seems, to support ACTS.

“Almost everyone else said that the idea would not fly,” he recalls. I was told that policymakers don’t read anything, so there was no reason to write for them. I was also told that there was no precedent for what I was doing in Kenya and that the political atmosphere at the time was too hostile — that I could go to prison, even.”

His disappointment at the hands of international agencies was shared by other founders. In Bangladesh, Huq says that the agencies would have been more receptive if they had said: ‘We want to provide running water in rural villages.’ “They were less interested in helping developing countries to think for themselves,” explains Huq. The prevailing practice at the time was that donors would hire expensive consultants to set the research framework. “Our job as scientists in developing countries would have been to implement their vision,” he says.

Huq was fortunate in that one of his earliest supporters was his PhD supervisor, the ecologist Gordon Conway, now chief scientific adviser at Britain’s Department for International Development. With Conway behind the idea, Huq was able to secure the backing of the Ford Foundation.

Today, the Bangladesh centre is one of Asia’s leading environmental policy think-tanks, advising governments and corporations on sustainable development, but Huq

“The Rio meeting acted as a wake-up call to developing countries.” — Saleemul Huq

The road from Rio

Are think-tanks staffed by scientists a luxury that only rich nations can afford? **Ehsan Masood** meets the founders of four institutes that set out to help poorer nations to think for themselves.



says that he will never forget the uncertainty of those early days. "We had 40 or 50 families who depended on us. Sometimes I would sit in the office late into the night figuring out how people would be paid."

Former US economics professor, Tariq Banuri, found it easier to attract the attention of foreign donors. As founding director of Pakistan's Sustainable Development Policy Institute (SDPI), he says, "The vision was to create a trans-disciplinary research institution that was close to policy. In the late 1980s, such an institution would have been rare even in the developed West." But he was able to secure the backing of the governments of Canada, Norway and Switzerland, in part because the 1992 launch coincided with Pakistani thinking on an environment action plan. This helped to reassure donors that the SDPI would have some support from the state and was less of a freelance operation.

Banuri also had the backing of Aban Kabraji, a Pakistani conservationist who is a senior executive with the World Conservation Union (IUCN) and a well-respected figure. "We did have a funding shortfall for a six-month period, during which many of us worked unpaid, but that was not to be repeated," Banuri recalls.

Academic freedom

But friends in high places cannot alter one reality on the ground: a shallow pool of research talent in developing nations. Policy institutions need researchers who have an unusual blend of skills: in-depth knowledge of one or more scientific disciplines, along with knowledge or experience of how this applies in the policy arena.

Developed countries have many opportunities for academics to hone such skills. But in the developing world, public universities have less experience of working with governments, of collaborating across disciplines or of working with other non-academic institutions. It

CALESTOUS JUMA

Founder, African Centre for Technology Studies

Born: Port Victoria, Kenya, 1953
PhD: University of Sussex, UK (Science policy), 1987
Centre founded: Kenya, 1988
Current job: Professor of international development at Harvard University

What was the best advice you were given?

I went to see Maurice Strong (founding Executive Director of the United Nations Environment Programme) and told him that I wanted to start small and scale-up later. He told me that things that start small always stay that way. "Don't be afraid of having a big vision," he said.

Would you do it all again?

I am in the process of creating a college in my home-town of Lake Victoria. The idea is to use the best available knowledge to create sustainable-development solutions for the area's people and ecology. I am too old to run it, but will act as a mentor to whoever takes it on.



is because of this that most of the founders decided to operate independently of public universities.

In Pakistan, Banuri explains, "university staff were poorly paid and seemed unhappy and depressed. This was not the kind of environment I wanted for something new and innovative." Banuri also wanted the freedom that independence from the state provides. This freedom proved crucial in the case of a 2002 research project to survey public attitudes to Pakistan's nuclear development. "This project is unlikely to have happened had SDPI been linked to a public university," says project leader Haider Nizamani of the University of British Columbia. The survey's findings are due to be published in early 2008.

However, Banuri now thinks that, with hindsight, the decision to go independent was perhaps a mistake. "It would have been better for us to find a university, draw on its resources, but also help to build its capacity." Without building policy-research capacity in universities, his thinking goes, independent institutions will have less talent to draw on.

Huq agrees that being based in a university would have been better in the long run. The Bangladesh education system never used to produce independent thinkers: "You could get a masters' degree by memorizing a textbook." But he adds that "things have changed in the past few years as Bangladesh higher education has opened up to private competition, which is raising the quality of graduates."

Instant impact

Once up and running, all four institutions found themselves much in demand from policymakers. As there is much less competition for the ear of politicians in these regions than in the developed world, the work of new institutions gets noticed and can have an impact more quickly. "The Humboldt Institute became a major force in science and environmental policy in Colombia in just a couple of years," Samper recalls. "We helped to create the country's first environmental act and had the environment minister chair our board." In Nairobi, ACTS helped to draft Kenya's first industrial-property law in 1989, leading to the creation of the country's patent office. And in Dhaka, the Bangladesh centre helped to create a new environment ministry for the country and to write the country's first environmental action plan.

But Sunita Narain, who heads the Centre for Science and Environment in Delhi, cautions that having close ties to government carries risks as well as rewards. Her centre has a policy of not doing contract-research for anyone, and has taken a more activist role. Because India has long had a more stable democracy, unlike the other four countries, think-tanks that combine policy and research are more common. Still, she says it is crucial for all institutions in the developing world to evolve in response to changing times. Now that environmental

CRISTIÁN SAMPER

Founder, Alexander von Humboldt Institute

Born: San José, Costa Rica, 1965
PhD: Harvard University (Biology), 1992
Institute founded: Bogotá, Colombia, 1995
Current job: Acting Secretary, Smithsonian Institution

What was the hardest part?

Overcoming the apprehensions of universities. Some felt that there was no need for another research institution. We had to explain this was not designed to duplicate work, but serve as a boundary institution between science and



policy. The solution was to establish the institute as an umbrella organization and invite the universities to become members.

What is the worst mistake a founder can make?

Too many founders hang on for too long and never let go. The real test of a founder is whether they can let go and have laid the foundations for an institution to thrive without them. I have always tried to move on when things are going very well, but that is often when you are having the most fun.

issues have become mainstream, for example, think-tanks need to find a niche to maintain their impact.

International partners, too, bring some risks. Each of the founders wanted international contacts but without turning their institution into a contract-research centre for rich clients. For this reason, both the Bangladesh and Pakistan centres avoided bidding for lucrative overseas government contracts. But this was a form of research they were not always able to avoid, particularly when cash-flow from other projects was tight.

Three of the centres formed a support network with other international partners. In Colombia, Samper says that such collaboration was seen as less of a priority. "I did suggest this to our board, but they took a different view and felt we already had the world's top expertise in Colombia," he says. But he doesn't think the centre's work suffered: "I would say that the best lessons and experience came from other developing countries."

Social scientists have a phrase to describe what happens when the founder of an institution refuses to hand over leadership to a new generation, sometimes in the mistaken belief that the organization will collapse without them. They call it 'founder syndrome'.

TARIQ J. BANURI

Founder, Sustainable Development Policy Institute

Born: Peshawar, Pakistan, 1949
PhD: Harvard University (Economics), 1986
Institute founded: Islamabad, 1992
Current job: Senior Fellow, Stockholm Environment Institute

What would you do differently if given a second chance?

I would have been more 'journalistic'. Think-tanks that take a journalistic approach seem in hindsight to have been more influential. Looking back, I now wish we had found more young people with energy and dynamism who wanted to make a difference. Many of the big names we recruited turned out to be useless, whereas many of the bright young things that we hired are now the stars of tomorrow.

Would you do it all again?

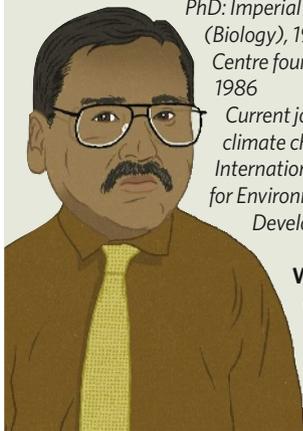
Probably not. I have had offers to return to Pakistan, but my priorities are now more international, especially global climate change and helping to ensure that developing countries get a fair deal.



SALEEMUL HUQ

Founder, Bangladesh Centre for Advanced Studies

Born: Karachi, Pakistan, 1952
PhD: Imperial College, UK (Biology), 1978
Centre founded: Dhaka, 1986
Current job: Head, climate change group, International Institute for Environment and Development, London



What were you doing in 1986?

I had returned to Bangladesh to become an assistant

professor at the University of Dhaka. It didn't suit me at all. It was bureaucratic: promotions were based on length of service, and the environment did not reward excellence or good ideas. So I got together with others who had also obtained PhDs abroad and we set up the Bangladesh Centre for Advanced Studies.

Would you do it all again?

Yes. In fact, I am planning to return to Bangladesh to establish an International Centre for Climate Change Adaptation and Mitigation, which will be based at one of the new private universities. Bangladesh is well placed to lead the developing world in responding to climate change. This will be my next challenge.

In the developing world, one of the most notorious examples of founder syndrome is that of the late Thomas Odhiambo, founding director of the International Centre for Insect Physiology and Ecology in Nairobi. Odhiambo, a charismatic figure, friend and adviser to generals and presidents, led the institution from 1970 until 1994 when he was forced out by the institution's donors and by its governing body. Odhiambo was determined that the centre should follow his vision. But the donors had other ideas and, today, the centre's website carries no reference to its founder.

Letting go

Mindful of the dangers of clinging on, three of the founders established limits to their terms as directors. And all four organized the recruitment of a successor and then cleared their desks when their time was up. "I was determined to avoid a situation where the founder sticks to his creation like a leech and refuses to let go," Banuri says. He adds, "I wouldn't have minded an offer to sit on the board after I left, but I felt board members were too afraid that I would try to continue to run the organization."

Banuri and Juma have since opted to return to working at the coal-face of research and are no longer responsible for the day-to-day administration of a large institution. By contrast, Samper and Huq are still active in the running of large organizations or collaborations. Huq remains non-executive chair of the board of the Bangladesh centre, and Samper is the acting head of the Smithsonian Institution in Washington DC. These different choices are perhaps explained by the contrasting styles of the founders. Both Banuri and Juma hold strong opinions and are not afraid to share

them, whereas Samper and Huq would prefer to build a consensus.

The founders offer similarly contrasting advice to anyone wanting to follow in their footsteps. As Juma puts it: "If you have a good idea, don't consult too many people, as they will try to put you off." Samper, though, says it is important to: "take your time to build a vision, focus on a few priorities and have the buy-in of key stakeholders." He recalls that the best advice came from his father, who founded several agricultural research institutions in Latin America. "He said I should set a clear vision, hire a really good team and make sure I step down at the right time. The last of these is one of the hardest things, but I think it is crucial."

Not surprisingly, given their successful career paths since leaving the running of their institutes to others, each of the founders feels the experience was worthwhile, and will admit to few if any regrets. Some even say that they would be willing to start over again, in an advisory role if not an executive one. As mentor for his next project, Juma believes in finding donors who see the value of learning from mistakes: "This is critical for any new institution," he says, "but in the eyes of a donor, mistakes are to be punished."

And the most important lesson to pass on? There are no guarantees. In the same way that a research funding council cannot walk into a lab and demand the results of an experiment before it has even started, founding a new institute is a process of exploration without a certain outcome. In this sense, says Juma, "International development is much like basic research."

Ehsan Masood writes about science in developing countries.

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