Q&A

Lidia Brito, Mozambique's former science minister, now heads the science-policy division at the United Nations Educational, Scientific and Cultural Organization (UNESCO) in Paris.

What made you decide to pursue science?

When I was 14 years old, Mozambique became an independent country. It was a life-changing moment that motivated me to contribute by pursuing my interests in chemistry — at the time, I thought in industry. But when I was 15, a teacher shortage led to the closing of the last years of high school in all provinces. I was fortunate to be able to go to a special pre-university school created by the government in Maputo, the capital city. At first I was encouraged to study agricultural sciences, but I did not like that at all because I couldn't see a way to combine it with chemical engineering. In my second year, I jumped at the opportunity to be among the first class of foresters trained in Mozambique under a new forestry degree programme.

Did you immediately follow an academic track?

No. After I finished my undergraduate degree at Eduardo Mondlane University in Maputo, I was recruited to stay and teach there, but I was required to work in forestry before I could begin my academic career. After getting some field experience introducing new sawmilling techniques to improve the quality of wood products, I took some time off for my husband to focus on his career before I finished my MSc in wood sciences and PhD in forest sciences in the United States. I returned to Mozambique and slowly built an academic career conducting research related to biomass production and forestry management.

Did you have a career turning point?

Yes. The turning point in my professional life was developing leadership skills as head of the department of forestry. I learned that to be a good manager I should always approach my goals with a critical eye, I should ask the hard questions to determine whether goals are being reached and, if necessary, redefine a policy mission. That led me to a job as deputy rector of academic affairs at the university and a completely different path.

Why do you think you are effective in policy roles?

I have had the great fortune of having worked with, and learned from, wonderful teams of people. I've combined my life experiences to sharpen a critical eye. Early in my career I did field work with industry while I was still linked to the university doing teaching and research. As a result, I got a more practical understanding of what is at stake at the production level. I developed the capacity to simply ask the right questions, which is very important when you work in policy. In the end, policy-makers must create feedback mechanisms, be open to change and look at things with a critical eye. I took all those lessons with me when, along with colleagues, I helped to establish Mozambique's Ministry of Higher Education, Science and Technology.

What job did you find the most rewarding?

It's difficult to choose. I enjoyed life as an academic working with students, but working in the Mozambique science ministry was very special because it was a new ministry. The team was small but we were able to develop new policies and mobilize resources. It is very gratifying to see that many of our initial projects, such as the establishment of the National Research Fund, a funding agency, and programmes such as the annual innovation competitions or Science Fair, are now flourishing pieces of a much larger ministry.

What research is most needed to inform future science policy?

We need to better understand how policy drives social change. For example, we need to know whether and how certain policies really promote basic values in society, such as equality, inclusivity and access to resources.

What is your top scientific goal at UNESCO?

UNESCO has an important mandate to use its focus on science, communication and culture to offer relevant policy advice. Our challenge is to identify the triggers and drivers of development — for example, education initiatives — that can really make a difference. Clearly, the scientific challenge for UNESCO is to do more research on science-policy development. For example, we were recently involved in a large research project in Turkey and Malta to study the effects of science policies on equality in society. We need to promote more of this kind of 'think tank' approach to science-policy development — preferably through partnerships with organizations that do complementary work such as the United States Agency for International Development.

What was the best piece of advice you were given?

People who are not afraid of thinking differently from the rest are the ones that come up with alternative solutions to old problems. ■

Interview by Virginia Gewin

IN BRIEF

Better prospects

Demand for both permanent and contract researchers is expected to increase this year in the United Kingdom across several sectors that employ scientists, according to a survey of employers. Slough-based recruitment company SRG found that 29.5% of respondents expect to boost numbers of permanent scientific staff in 2010. Fields surveyed included pharmaceuticals and biotechnology, oil and petrochemicals, health care, research institutes and government agencies. About half of the employers in the oil, gas and petrochemicals sector expect to have open permanent research positions, and none is forecasting cutbacks. More than 550 employers completed the survey.

Salary freeze

In 2009, some two-thirds of private and public US universities gave no salary increases to their chief executives, academic deans and other senior executives, and 2.1% cut salaries, according to a survey released on 22 February. The College and University Professional Association for Human Resources, based in Knoxville, Tennessee, polled 1,280 institutions for its *Administrative Compensation Survey Report*. Nevertheless, the median base salary for the chief executive of a doctorate-granting institution was up 7% from 2008 to US$375,000 in 2009. Respondents predicted restricted hiring for the fiscal year 2010, with fewer than 1% expecting "significantly more" positions to be filled.

Wellcome translation

The Wellcome Trust is planning to provide funding for 100 new PhD positions in biomedical translational research in UK and Irish universities. The charitable trust, based in the United Kingdom, aims to create four PhD programmes, each lasting five years and funding five new graduate students per year, for research in areas highlighted by the trust this year as key to its ten-year strategic plan — applying genomics and genetics to understanding disease, brain and mental disorders, infectious disease, ageing and chronic disease, and links among environment, nutrition and health. The closing date for preliminary applications to create and direct one of the four programmes is 11 May and winners will be announced in December.

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