

Parallel session 5: PCST challenges and tools directed to young people

**PROMOTING SCIENCE IN DEVELOPING COUNTRIES – A YOUNG
SCIENTISTS’ INITIATIVE IN MOZAMBIQUE AND ANGOLA**

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Abstract

Science for Development is a grass-root association of young Portuguese and African researchers, working voluntarily to promote internationalisation of scientific activity and the application of science and technology in the developing world. Activities target researchers, through technical workshops aimed at specific local demands, and junior graduates, through discussion-based courses aimed at promoting the scientific activity. We believe that the structure and mode of action of Science for Development represents an alternative to address the needs of science development in poorer countries. Today, initiatives such as this face several challenges: which tools can be developed to broaden our audience in the developing world and engage more people with science? How can the impact of activities be evaluated? How can we ensure their long-term effects?

Key words: Grass roots organization; science; sustainable development

Text

Context

It is increasingly recognized that science and technology are critically important for global sustainable development, and that developing countries can no longer be excluded from this trend. Developing countries have a huge potential in terms of natural resources, traditional knowledge and human potential. It is building on this knowledge and resources potential that a sustainable social and economic development can be ever achieved. Promoting science and technology in the developing world is now a stated objective of UNESCO (1) and, recently, two reports delivered to United Nations Secretary-General Kofi Annan make a strong appeal that developing nations should build up their scientific institutions (for a comment see ref. 2 and ref. 3). As Dr. Mohamed Hassan, president of the Third World Academy of Sciences, puts it, “science alone cannot save Africa, but Africa without science cannot

be saved” (4). It is therefore urgent to strengthen skilled research communities, and make them capable of translating scientific knowledge into technological solutions for social and economical problems.

While governments and international bodies publicly recognize that research should no longer be a luxury of richer countries, it is much less common that structures emerging from civil society attempt to address the same issues. In 2001, a group of Portuguese PhD life science students and Mozambican researchers created the not-for-profit organization Science for Development. This organization aims to support the development of strong and independent thinking scientific communities, able to act responsibly and propose well-adapted solutions to achieve sustainable development. Science for Development acts by promoting scientific careers and improving networks amongst scientific communities, in particular in countries that face language barriers in accessing scientific knowledge (such as in Portuguese speaking countries). All members of the organization have many years of experience in different fields of scientific research and are geographically distributed in five different countries of Europe, Africa and the United States of America and consequently, a broad range of scientific contacts which reflect on the quality of the activities organised.

Programme

Science for Development implements four types of activities:

1. Courses aimed at discussing the scientific activity and the application of science in developing countries. These courses use discussion and problem solving activities to alert university students from different Life Science branches (Medicine, Veterinary Sciences, Agriculture, etc) to the applications of Life Sciences and Biotechnology as ways to solve economical and social problems in developing countries. They provide tools to help to follow a career in science and to access scientific information across the world.
2. Public debates on scientific issues and the impact of science in society with the participation of the general public, governmental entities and NGOs.
3. Advanced technical workshops aimed at responding to specific local demands. These workshops bring together international specialists in a chosen topic, local researchers, and policy makers, and provide an environment for knowledge sharing and the generation of adapted recommendations for the problem under study.
4. An exchange programme that allows short-term training of young scientists and technicians in methodologies not available in their home countries. These are aimed to further increase international cooperation between research institutions.

In all activities Science for Development takes care to ensure that the approach is to stimulate critical thinking and independence, which breaks away from the scholastic attitude common in universities. This aims to develop problem-solving skills, necessary in scientific and technological research. Additionally, all activities aim to promote links between different scientific communities and institutions.

Challenges

Science for Development is now on its third year of activity. Two courses aimed at promoting the scientific activity, a public debate and an advanced workshop on veterinary research tools and approaches have taken place in Mozambique, with encouraging results. We are now extending our activities to Angola, a country recently coming out of a devastating civil war. However, this does not come without difficulties. Despite based on voluntary work and run on a project-basis funding (thus, quite cost-effective), longer-term funding strategies need to be put in place to ensure the durability of the project. Science for Development has been supported in the past by international charities, such as the Calouste Gulbenkian Foundation in Portugal and the Gatsby Foundation in the UK, by the universities and by the Ministries for Science in Portugal and in Mozambique.

Science for Development faces other challenges common to organisations involved in the promotion of science and public engagement with science, such as: Which tools can be developed to broaden our audience in the developing world and engage more young people with science? How can the impact of those tools and activities be evaluated? We are developing a website to be a resource of information and a tool for discussion and networking. This site will also have a pack of practical information on how to access scientific information through the Web, how to get funding, how to write Curricula and motivation letters as we have found this information to be very useful to the participants of our workshops. Evaluation of our activities has been based on summative questionnaires. So far, we have not performed an extensive evaluation of the impact of activities, but in the future we plan to use the website and mailing lists to establish a follow up evaluation process. In addition, we are trying to develop other forms of evaluation.

Science for Development represents an alternative created by young scientists to address the needs of science development in poorer countries. We think this is a model worth of attention and hope to motivate other young scientists to engage in these types of activities.

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