

# UNESCO launches new series with a profile of R&D in Botswana

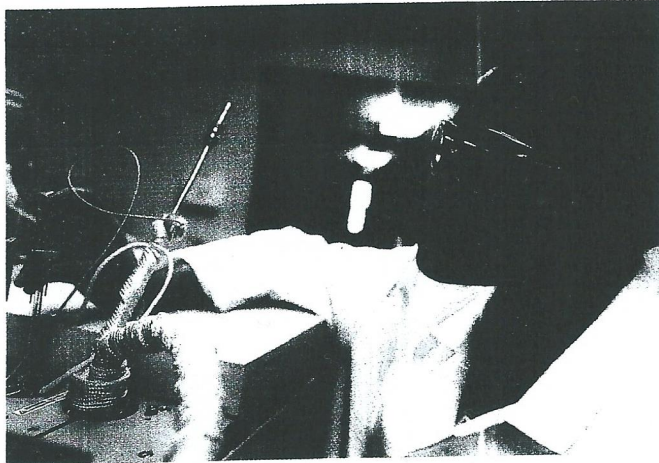
14<sup>th</sup> November 2013, Paris, France

**T**he first volume in UNESCO's new online series of GO→SPIN Country Profiles in Science, Technology and Innovation Policy was launched on 14 November 2013 at UNESCO headquarters. It is dedicated to the research and innovation landscape of Botswana.

The study was launched at a side event of UNESCO's General Conference that was inaugurated by UNESCO Director-General Irina Bokova and moderated by Assistant Director-General for Natural Sciences Gretchen Kalonji. 'All countries are seeking new sources of creativity and innovation, to craft policies that are inclusive, just and sustainable,' observed the Director-General in her opening remarks.

The Director-General then welcomed the Minister of Education and Skills of Botswana, the Honourable Dr Pelonomi Venson-Moitoi.

The Minister thanked UNESCO for the fruitful collaboration on the study, which was financed by the Spanish Agency for International Cooperation and Development (AECID). The Honourable Dr Pelonomi Venson-Moitoi recalled how, in her capacity as Minister of Communication, Science and Technology in 2008, she had requested UNESCO's



assistance in reviewing the country's first *Science and Technology Policy*, dating from 1998. Accompanied by UNESCO, Botswana had published its updated National Policy on Research, Science and Technology in 2011, followed by the Implementation Plan a year later, within a project financed by AECID. Present at the launch, a smiling Vicente Mas Taladriz from AECID reaffirmed his government's support for UNESCO.

The Minister then went on to highlight some of the challenges facing her country. She cited the need to improve both intellectual property protection and the commercialization of products derived from research and development (R&D). She also evoked the funding dilemma of a developing country like Botswana, where the decision to invest in R&D has to be weighed against the need, for example, to build a clinic for people afflicted with HIV and AIDS.

The Minister observed that Botswana had been fortunate. At the time of independence in 1966, it was one of the poorest countries in the world. A year later, diamonds were discovered and had since become a pillar of the economy.

*Mapping Research and Innovation in the Republic of Botswana* reveals that the country has one of the highest levels of income and scientific productivity per capita in sub-Saharan Africa. In an effort to reduce dependence on the mining sector, the government has made diversifying the economy a priority. Conscious that private-sector participation will be critical to the success of this strategy, the government has established the Botswana Innovation Hub.

UNESCO's Global Observatory of Science, Technology and Innovation Policy Instruments (GO→SPIN) was launched in 2012 by UNESCO's

Division of Science Policy and Capacity-building, via a series of workshops in Africa.

GO→SPIN is helping Member States to monitor and evaluate their performance in science, engineering, technology and innovation, via

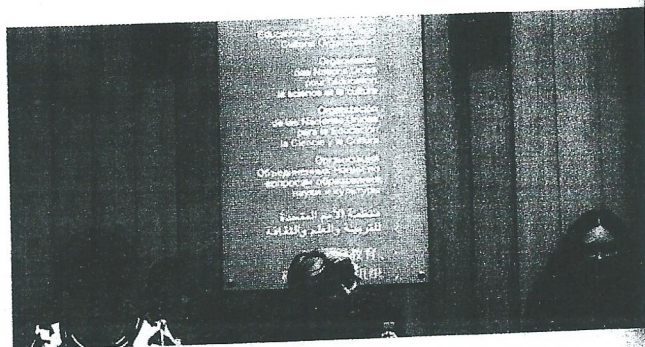
a standard methodology for analysing policies, legal frameworks, operational policy instruments and a series of indicators. The study includes different inventories of the various components of their national innovation system. This monitoring tool

has been designed to help countries reform and upgrade their national science and innovation systems and governance. GO→SPIN should also offer a solid foundation for foresight studies in relevant areas. ■



**Statement by Hon. Pelonomi Venson Moitso,  
Minister of Education and Skills Development,  
Republic of Botswana  
Launch of Go-Spin  
14<sup>th</sup> November 2013, Paris, France**

*Honourable Ministers here present,  
His Excellency, the Botswana Ambassador  
to Brussels also accredited to France,  
Mr Samuel Outlule,  
Your Excellencies Heads of Missions,  
The Director General of UNESCO,  
Ms Bokova, and  
Heads of International Organisations,  
The Director; UNESCO Division of Science  
Policy and Capacity Building Ms Lidia Brito,  
Permanent Secretaries here present,  
Representatives of UNESCO Member States,  
Distinguished Delegates, Ladies and gentlemen;*



Hon. Dr Pelonomi Venson-Moitso, UNESCO Director-General and ADGSC at the launch on 14 November 2013.

I join others in congratulating the Government of the Republic of France in hosting the UNESCO Commission for science and technology which among others, shall culminate in the launching of the report on the Botswana's science and technology profile which is a result of the recently undertaken Global Observatory on Science, Technology and Innovation Policy Instruments (GO-SPIN) survey. Let me assure you of my delegation's support as you provide guidance and stewardship to a successful outcome for this forum.

To start with, let me thank the organizers for the invitation to come and speak to you on this very important occasion.

I have been reliably informed that the Global Observatory on Science, Technology and Innovation Policy Instruments (GO-SPIN) platform is a standard survey

tool on science, engineering, technology and innovation (SETI) policy instruments, governing bodies, legal framework and policy. The platform maps out and analyses each of these components to extract both explicit and implicit relationships and their impact on STI productivity and economic growth within member states. In essence this survey presents the national state of the science, engineering, technology and innovation, and if done on a regular basis it can be instrumental in policy and strategic decision making. I am happy to note that the information posted in the GO-SPIN data base and can be accessed openly, which has a potential of increasing visibility of participating countries hence increasing chances for effective strategic international partnerships.

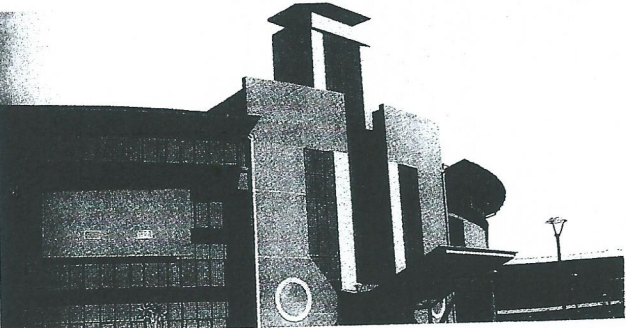
It is our utmost conviction that the analysis of the GO-SPIN survey will provide Botswana with reliable RSTI Indicators.

Botswana has in the past developed RSTI Policies which were never fully implemented due to, among other things, lack of reliable RSTI Indicators. The GO-SPIN Survey therefore came at an opportune time when Botswana is in the implementation process of the Revised RSTI Policy 2011. Our heartfelt gratitude therefore goes to UNESCO on this gesture.

I therefore would like to express my sincere gratitude to UNESCO for having considered Botswana among the first Southern African countries to be included in the GO-SPIN survey. Botswana has in the past received numerous assistance in Research, Science and Technology Innovation (RSTI) activities from UNESCO. In 2008 my Ministry then was privileged to host the first regional workshop on first regional meeting on SADC Regional Science Technology Innovation (STI) Policy Reviews Workshop in September 2008.

structure that is necessary to support our aspiration to become a knowledge and technology driven based economy. My Ministry recently had the honour of hosting the Innovation Africa Summit 2013 in Gaborone. The sentiments that were shared were that education is the tool that countries should use to create long lasting "diamonds". Furthermore, national education systems should be integrated by bringing all the key stakeholders, especially the private sector, on board.

National capacity for RSTI performance is being developed as evidenced by institutions tasked with researching, developing and/or adapting technologies for application in Botswana. Botswana started S&T development as early as the 1960s when the first research institute was established (the now Department of Agricultural Research). Over the decades more institutions were established and policies developed to guide sector initiatives. These include higher education sector institutions (University of Botswana, Botswana International University of Science and Technology and other private universities), and public sector research and technology institutes (including Botswana Institute for Technology and Research Innovation, Botswana Vaccine Institute and the National Food Technology Research Centre (NFTRC), to mention a few. Additionally, government departments also undertake research in their respective areas – such as the Department of Agricultural Research, the Department of Energy Affairs, the Department of Geological Survey and the Department of Water Affairs.



Following this workshop, whose theme was *"improving policy conditions and building mechanisms for innovation"*, Botswana embarked on the review of its 1998 Science and Technology Policy. The revised Policy on Research, Science, Technology and Innovation (RSTI) was completed in 2011. In 2012 my counterpart in the Ministry of Infrastructure Science and Technology launched the RSTI Policy and its Implementation Plan. The RSTI Policy Implementation Plan was formulated with the support of UNESCO. Therefore, the involvement of UNESCO in an effort to transform the RSTI landscape of Botswana, and the African region cannot be over-emphasised.

Botswana as a developing country has a lot at stake in this matter, given that one of the biggest constraints in attracting foreign investment is inadequate ICT infra-

There was however an increasing gap in the coordination of efforts for scientific research and development which rendered the investments unproductive. Hence, the development of the Botswana National Research, Science and Technology Plan (BNRSTP) which presents a strategic framework for the country's prioritisation of research and development areas. The research prioritisation aims to minimise the challenges facing the country, and to leverage areas of its comparative advantage can be said to be one of the strides that Botswana has made in recent years.

The country has also seen the establishment of an Innovation Hub which will focus amongst others, on information and communications technology, mining, energy and biotechnology. The Hub will be in direct competition with similar institutions in other countries and will have to offer a strategic environment, physical infrastructure and the human capital which is at least equal if not better than competing investment destinations elsewhere in the world.



I am also happy to inform you that the establishment of the Botswana International University of Science and Technology under my Ministry which had its first intake in 2012 will also improve Botswana capacity in area of engineering, science and technology which have been very scarce. The establishment of privately owned universities has also contributed immensely to human capacity development in science and technology related fields.

In addition to the developments I have already outlined, Botswana offers a good investment climate due to high diamond revenues realised in the recent past that have allowed large investments in infrastructure development, and education (on average 20% of national budget). These developments have contributed to making the country an attractive global investment location. The recent agreement between Botswana and De Beers to relocate aggregation, selling and marketing of diamonds to Gaborone, Botswana, with the inaugural sales taking place this week will further provide opportunities for downstream activities.

Potential for international collaboration is enhanced by Botswana's membership in regional and international organizations which could facilitate its access to globally

available knowledge and technology. Recently, Botswana joined the African Science and Technology Innovation Indicators (ASTII) Initiative, which is a flagship programme under NEPAD aimed at capacitating African countries to develop RSTI indicators. However, the country also continues to face challenges as follows:

Botswana, however, like other African countries, is also bedevilled by challenges that the Consolidated Plan of Action developed by NEPAD seeks to address. These have been espoused in the Vision 2016, NDP 10 revised 2011 RSTI Policy. The achievement of the Millennium Development Goal's, adopted by the African countries and the international community, will not only require reorientation of development policies and programmes, but most importantly to effectively implement to focus energies on long-term activities that will result in economic change and growth. The challenges facing the majority of the world's population, particularly those in Africa, include, the prevalence of HIV/AIDS, Poverty, high unemployment rates and brain drain. Therefore, Botswana stands to benefit from active participation in the implementation of the Consolidated Action Plan Strategy.

The Botswana Revised RSTI Policy of 2011 calls for a systemic approach to Research Science and Technology Innovation with clear vision, programmes, incentives, measures, roles, targets and monitoring indicators. The implementation plan further advocates for the establishment of mechanisms and structures to coordinate linkages across sectors, set priorities and allocate funding for the policy as well as guidelines for specific programmes that can be adopted.

Finally, Botswana is committed to enhance international and regional strategic collaboration and partnership in research, development and innovation. It is our hope and believe that our continual collaboration with UNESCO and other regional and international organisations will take Botswana a long way in the development of her research and innovation.

I thank you for your attention. ■