

25th Annual session of the CSTD

Presentation of STIP Review of Botswana and Study on Innovation and Entrepreneurship of Angola

1 April 2022

Excellencies, ladies and gentlemen,

Before going into the presentation of the preliminary findings of the two projects on STI policy currently under implementation by the secretariat in Angola and Botswana, I would like to thank His Excellency, Mr. Felix Mutati, Minister of Technology and Science of Zambia for his words in the launch of the STIP Review that we completed last year in his country, and also for the excellent support that our team is receiving from his Ministry in the implementation of a current project on technology assessment.

STI Policy Review of Botswana

This Review is implemented in collaboration with the Ministry of Tertiary Education Research Science and Technology. We thank the Ministry for their support and in particular the Department for Research Science and Technology (DRST).

Due to the COVID-19 pandemic UNCTAD was forced to adopt a novel approach from its traditional methodology. The review has been undertaken fully by virtual means to date. The traditional multistakeholder approach has been retained, with wide stakeholder participation, this time using digital platforms. This created challenges and delays due to connectivity issues.

We have integrated an STI foresight into the STIP review process, in line with requests from the CSTD and the revised methodology for STIP reviews.

The review process is at an advanced stage in terms of both the STIP review report and the foresight exercise. I will report on some of the preliminary findings.

The STIP review argues that harnessing STI is critical for the transformation of Botswana that is envisioned in its highest level policy documents, Vision 2036 and the 11th National Development Plan (NDP 11). The transformation of Botswana into a high-income country with dynamic export capacity, rapid job creation and greater diversification which reduces social inequality and addresses pressing environmental challenges requires the effective application of knowledge and innovation in Botswana.

To achieve this transformative change, we suggest that several things need to happen.

The institutional governance of STI needs to be strengthened to ensure there is an effective and adequately resourced body to coordinate STI nationally.

The policy focus should also shift to achieve greater balance among the three elements of STI policy - R&D, technology and innovation - with a view to tying them together to promote innovation in the country to reach economic, social and environmental targets. The balance is more heavy on research at the moment.

There needs to be better coordination in the national system of innovation, which is currently highly fragmented, with many silos, in particular within the R&D system. Related to this, Botswana would benefit from establishing clear priorities for STI. This is particularly important given the country's limited financial, human and institutional resources available.

On the issue of establishing priorities I would like to refer to the foresight exercise being undertaken as part of the review.

The foresight exercise is expected to stimulate discussions in Botswana on establishing national priorities for R&D and technology, and directionality for innovation efforts. It should also help inform human resource needs in line with Botswana's 2036 transformation agenda.

We have completed several foresight activities, including three foresight workshops in Botswana. There was good discussion among key stakeholders which, hopefully, will spearhead an ongoing process of discussion in the STI community in Botswana on the STI priorities for the future. There is still more to do before the foresight exercise is completed. But we hope that foresight will become a policy tool that can be adopted for wider use in STI policy planning. A key finding of the foresight process so far is that the current STI trajectory will not lead to the "thriving" scenario that is Botswana's preferred future as expressed by stakeholders during the foresight discussions. This accords with the findings of the STIP review.

The level of investment in STI needs to rise, ideally through higher investment by both the public and private sectors. Gross expenditure on R&D remains low relative to GDP. Engagement of the private sector in STI should be strengthened. This has presented a challenge, due to weak linkages between industry and research and inherent weaknesses in much of the private sector. More active use of available policy instruments will be needed to support innovation by firms.

Implementation of the 2011 Research Science Technology and Innovation (RSTI) Policy has not been complete, and improved implementation is needed. Several measures identified in it remain important to achieve progress but have not been implemented. At the same time the policy would benefit from updating.

There are several other areas that require attention, including building institutional capacity, improving monitoring and evaluation,

harnessing digitalization and frontier technologies and leveraging fully international partnerships.

In a number of these areas Botswana is taking action, with recent initiatives on improving R&D management, strengthening the skills base for research, promoting digitalization and digital innovation, establishing an M&E framework, establishing a policy on private sector engagement and expanding international partnerships. These are positive developments, but they need to be properly resourced and include measures to ensure that progress is made in implementation. Implementation of STI measures overall has been moving too slowly in the past two decades. The confluence of growing challenges globally, regionally and at the national level is evolving quickly and means that the rate of progress will need to accelerate. The Covid19 pandemic has only added additional challenges that require rapid action.

We look forward to a fuller discussion of the review at the CSTD after it has been completed, along with the finalization of the related STI foresight exercise.

We thank His Excellency Mr. Douglas Letsholathebe for the good collaboration with his Ministry and look forward to continued collaboration with the Government of Botswana. We remain ready to continue providing support on STI policy for promoting the transformation of Botswana and reaching its sustainable development goals.

Now I would like to present to you the findings of the **Study on Innovation and Entrepreneurship of Angola**

UNCTAD undertook this study at the request of the UNDP and the Ministry of Higher Education and Science, Technology and Innovation.

Like in the case of Botswana COVID-19 forces us to change our usual process and to rely extensively on online interviews with representatives of the various actors of the national innovation system of Angola. The study is being finalized and we look forward to its full presentation at the next CSTD.

We found that Angola has made a lot of progress in setting the national innovation system and that now it could concentrate in making it more ‘fit for purpose’.

In this regard, we would like to highlight three findings that resonate with the situation of many other member countries of the CSTD.

First, similar to our findings in other countries, there is a need to change the strategic orientation on STI from an emphasis on science to an emphasis on technology and innovation for economic diversification and for impact on other economic, social and environmental targets. This requires coordination mechanism across government agencies and between them and the private sector, as well as building an environment that fully supports the domestic entrepreneurial ecosystem.

Second, the national innovation system has developed rather broadly and without depth. It covers many relatively small and disconnected projects and programmes with low resources to reach the impactful results. Demands are huge and resources are limited and the pressures to distribute resources widely are difficult to oppose. For the national innovation system to drive technological change, it is important to prioritize towards the areas that will make a significant difference in terms of their inclusive and sustainable growth and development impact.

Third, Angola will need to increase its short and long-term finance for the national innovation system. In the short-run a higher budget allocation for certain elements must be put in place. Working more with international partners and donor countries may also bring some additional funding. However, the real expansion of finance for STI must come from the private sector through higher investments in R&D and innovation by large firms and through the banking system abandoning its conservative lending practices. A rapidly expanding economy and manufacturing industry would contribute largely to this goal.

We thank Her Excellency Ms. Maria do Rosario Bragança Sambo, Minister of Higher Education, Science, Technology and Innovation for the support that her ministry is providing for the implementation of this project.

Thank you for your attention.