

**COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT
(CSTD)**

Geneva, Switzerland

Contribution by

South Africa

to the CSTD call for information sharing on initiatives against COVID-19

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South Africa's Science Technology and Innovation COVID-19 response efforts

South Africa like many nations around the world is affected by the Coronavirus (COVID-19) pandemic. The pandemic is affecting countries in many ways including socially and economically. Science Technology and Innovation (STI) is seen as an answer to reduce the adverse impact of the COVID 19. In response to curb the spread of the virus, the President has declared a state of Disaster and a 21-day lockdown to enforce social distancing and directed that science be at the forefront of the national fight against COVID 19.

South Africa has put in place the following interventions to respond to the COVID-19 and they include and not limited to the following:

1. Prioritised some national research and innovation programmes, mobilized data scientists and made resources available to enable all this.
2. Developed a central database as a means of tracking the effects of the virus and provide appropriate responses to understand the local epidemiology and natural history of the virus.
3. Strengthening 3D printing capabilities to support manufacturing of assistive devices like ventilators.
4. Undertaking online social and perception surveys about the virus to enable the development of appropriate education and information interventions in communities and society.
5. National response efforts which include programmes related to surveillance, diagnostics, therapeutics and vaccine development.
6. The South African Medical Research Council recently established a Genomics Centre to enable affordable whole genome sequencing in Africa to facilitate health innovation.
7. Through national research entities will conduct a study of the medical innovations and systems (including institutions) in response to health impacts – this will cover, science skills and capacity as tool of trading in response to Covid-19 and assess the past disasters as well if needs be.
8. Through the Department of Science and Innovation, established a Research and Innovation Committee on COVID-19 (R&ICC-19). The committee will mobilise funding, prioritise research strategies and create an enabling ethical and regulatory framework to facilitate research. The R&ICC-19 will also provide high level strategic advice on the research and innovation priorities and needs around the COVID-19 response, to the Department of Science and Innovation (DSI), Minister of Higher Education, Science and Innovation, and to provide feedback into the COVID-19 Ministerial Advisory Committee of the Minister of Health.
9. Through the Council for Scientific and Industrial Research, developed an APP called Covi-ID, that aims to develop a privacy-focused "immunity certificate" aimed

- at supporting safe easing of lockdown restrictions in the country. The APP is was launched on 16 April 2020 on Google Appstore. https://youtu.be/3totKQ_BnBc
10. Through ICT, use the mobile data location for the tracing of individuals who came in contact with the infected patients.

Through international partnerships we have done and continue to do the following:

1. In partnership with the European and Developing Countries Clinical Trials Partnership launched a call for proposals to support research activities in sub-Saharan Africa to manage and prevent the spread of COVID-19.
2. Participated in the OECD Survey of STI policy responses to the Covid-19 crisis. This survey seeks to collect information on countries' STI policy responses to the Covid-19 crisis. The aim is to generate a quick overview of what countries are doing, with a view to providing a cross-country information service that STI policy makers can use when designing their own response strategies. <https://stiplab.github.io/Covid19/South%20Africa.html>
3. Participated in the UNESCO Virtual Ministerial Dialogue on COVID- 19 and 'Open Science'. The purpose of the meeting was to provide a platform for a dialogue and share experiences and lessons learnt on how science has informed evidence-based decision making. The ministerial meeting and the associated 'Plea for a global pact for Open Sciences & international scientific collaboration' intends to reaffirm the critical role of science to contain the pandemic and preparedness for the future.
4. Conducted a virtual meeting with our international partners on the role of "science diplomacy in the fight against COVID-19: South Africa's response, Harnessing networks and information. Over 100 international partners participated in the call and shared ideas and good practices on how to use science to respond to COVID 19.
5. In collaboration with the African Union Commission will develop an Africa Joint Continental Strategy for COVID Outbreak. The Strategy seeks to coordinate efforts of Member States, African Union agencies, World Health Organization, and other partners to ensure synergy and minimize duplication. Promote evidence-based public health practice for surveillance, prevention, diagnosis, treatment, and control of COVID-19.
6. Biopharming – partnerships by CSIR and Cape Bio Pharms for Plant-based production of highly potent anti-viral antibodies approach to COVID-19 vaccine development with BAT via their subsidiary Kentucky Bioprocessing (KBP) and Merck (Geneva)
7. Funded companies partnering with SADC countries for diagnostics reagents development (TokaBio, CapeBio) Reducing morbidity and mortality in health care workers exposed to COVID-19 through BCG vaccination

8. Part of the Africa Task Force for Corona Virus (AFTCOR, an Africa-wide collaboration for COVID-19 preparedness and response with a focus on six technical areas namely:
 - Surveillance, including screening at points-of-entry
 - Infection prevention and control in healthcare facilities
 - Clinical management of persons with severe COVID-19 infection
 - Laboratory diagnosis and subtyping Risk communications; and
 - Supply chain and stockpiling medical commodities

Information about any opportunities for collaboration on STI projects related to COVID-19

- Possible virtual meeting with the UNCSTD members to discuss ideas on how STI can be used to respond to the COVID-19
- Proposal for the UNCSTD to be a repository of information on best practices to respond to COVID -19
- Collaboration with UNCSTD to conduct the innovation capacities and capabilities study in the Southern African Development Community (SADC) region. The study will assist the SADC member states to have a database of innovation strength and weaknesses include those in the health sector.
- The agenda for the 23rd session of the UNCSTD to include a discuss on STI intervention to respond to COVID -19.