



Deutsche Afrika Stiftung e.V.  
Fondation Allemande pour l'Afrique  
German Africa Foundation

## Summary

# **Pandemic Preparedness – Africa as Pioneer What Germany can learn from African research**

23.11.2022, 18:30 - 20:00 Uhr  
German Bundestag, Berlin

## **Background**

The Corona pandemic posed major challenges to states and societies worldwide, and in some cases revealed enormous deficits in pandemic preparedness and response capabilities. While in Germany there is still hardly any sequencing, research institutions in Africa reacted immediately and used their regional networking, laboratory equipment and know-how from previous pandemics to sequence PCR test samples on a large scale right from the start of the pandemic. The world's first report of a virus variant came from South Africa, and it was also the research teams led by Dr Sikhulile Moyo in Botswana and Prof Tulio de Oliveira in South Africa that sounded the alarm when the so-called Omikron variant emerged.

As climate change progresses, researchers predict a global increase in pandemics, for which states must prepare themselves worldwide.

Against this backdrop, Dr Karamba Diaby, Member of the German Bundestag, in cooperation with the German Africa Foundation and the Friedrich Ebert Foundation, invited to a panel discussion.

## **Highlights**

- The infectious disease laboratories in South Africa and Botswana enable real-time research, which is also at the forefront in a global comparison
- Trust between policy-makers and researchers and direct communication channels are central to a rapid and successful response to pandemics
- Global pandemics require global responses; here, the global sharing of data (case numbers, discoveries of new mutations, research expertise, but also vaccine technology) plays a key role.

## Welcome Remarks

### **Dr Karamba Diaby MP**

Member of the Committees on Foreign Affairs and on Economic Cooperation and Development as well as the Subcommittee on Global Health

## Discussion

### **Prof Dr Christian**

#### **Drosten**

Director of the Institute for Virology, Charité Berlin

### **Dr Wolfram**

#### **Morgenroth-Klein**

Head of the Pandemic Prevention, Pandemic Preparedness and One Health Unit, Federal Ministry for Economic Cooperation and Development

### **Sikhulile Moyo**

Head of the laboratory at the Botswana-Harvard AIDS Institute Partnership and Winner of the German Africa Award 2022

### **Prof Tulio de Oliveira**

Director of the Centre for Epidemic Response and Innovation, Stellenbosch University and Winner of the German Africa Award 2022

## Closing Remarks

### **Henrik Maihack**

Head of Africa Department, Friedrich Ebert Foundation



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### **Cutting-edge virology research from Africa**

The Corona pandemic has shown that successful pandemic control does not require national solutions, but rather supra-regional strategies, emphasised Dr Karamba Diaby. Such a strategy could be observed on the African continent, where not only the African Union (AU) presented a continental strategy right at the beginning of the pandemic, but also research institutions cooperated across countries and exchanged data and information. Prof Tulio de Oliveira from Stellenbosch University in South Africa and his colleague Dr Sikhulile Moyo from the Botswana Harvard AIDS Institute Partnership made a significant contribution to this with their teams. Thanks to more than 20 years of research into infectious diseases such as HIV or malaria and the capacities they have built up as a result, they were able to immediately convert their laboratory systems to genome sequencing of SARS-CoV-2 and to sequence PCR tests on a large scale from the start of the pandemic, Dr Moyo explained. In the meantime, the institutes in Botswana and South Africa would perform real-time sequencing for more than half of the African countries. With the help of the data on the exact composition of the SARS-CoV-2 which was obtained during routine sequencing, research has been able to provide a scientifically sound basis for policy recommendations and decisions in the fight against the pandemic in a very short time. The discovery of the Omicron variant was also due to such routine sequencing, Moyo continued. The evaluation of PCR tests revealed anomalies that had not yet been recorded in any international database. When sharing the data in the regional database, he and his team finally came across similar irregularities reported by Prof de Oliveira's laboratory team, which pointed to a new mutation of the Covid 19 virus. Although the virus variant had been discovered in Southern Africa - precisely because large-scale sequencing had been carried out there from the beginning - Prof de Oliveira added, his research team assumed that it had originated in Western Europe and sharply criticised the reaction of the Global North, which had responded to the discovery of the Omicron variant with travel restrictions and border closures instead of recognition for the research work done.

### **Trust between politics and research as the basis for efficient pandemic control**

All participants in the panel discussion emphasised the importance of trust between politics and research for successful pandemic response. Only if politics and research worked closely together and developed clear, short communication channels could pandemics be responded to quickly and successfully. Here, too, the Covid 19 pandemic had shown how important communication between politics and science, but also with the population, was. In Germany, politicians had inquired with the scientific community, but German scientists could not agree on a common spokesperson. According to Prof Dr. Drosten, this has led to a polarised opinion and, as a result, to a loss of confidence in policy advice from science. In future, it would therefore be important to adapt policy more closely to the structures of science in order to be able to provide successful policy advice. Dr Moyo and Prof de Oliveira explained that one could learn from Botswana and South Africa, for example, where a relationship of trust and short communication channels between politics and science have already been built up over the last few years through close cooperation in the areas of HIV or malaria. This includes, for example, showing politicians the laboratories in person in order to make research transparent and accessible. Furthermore, clear communication about the performance and working methods of research as well as possible limits of political decisions is also central, added Prof de Oliveira.

### **Global sharing of knowledge and data on viruses as a cornerstone of pandemic response**

Not only between science and research must cooperation be improved, but also in regional and international cooperation, Prof de Oliveira and Dr Moyo emphasised. Especially during a pandemic, they



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said, it is crucial to share research findings and data immediately and to act in real time, as this is the only way to successfully contain a pandemic. While the institutes of Prof de Oliveira and Dr Moyo immediately shared their data with the World Health Organisation both regionally and internationally when new virus variants were discovered and, for example, put publications in specialist journals on the back burner, many countries in the Global North refused to share data. Thus, although existing vaccines could be quickly adapted due to the early notification of the Omicron variant, the vaccine technology was not shared with the African states, criticised Prof de Oliveira. Even when his institute applied to become an mRNA hub in Southern Africa, the vaccine manufacturer BioNTech refused to share its technology and know-how. Prof Dr Drosten countered that although many research institutes in Germany and Europe are willing to share their data, data protection in Germany often makes the rapid transfer of data difficult. Nevertheless, other industrialised countries are much more advanced in promoting capacity building than Germany. According to Prof de Oliveira and Dr Moyo, the training of young researchers and the exchange between countries is an important aspect of data sharing and must be promoted more intensively. His institute is already setting a good example, added Prof de Oliveira. A continental exchange programme has already been initiated for the virology department and students from all over Africa are being successfully trained.

### **Pandemic prevention and preparedness**

As a result of climate change, an increase in zoonoses and further global pandemics must be expected worldwide, warned Prof de Oliveira and Dr Moyo. For this reason, it is important to establish an international network based on open data exchange as well as joint exchange and training programmes. It is also crucial to further expand the diagnostic possibilities on the African continent, says Prof Dr Drosten, as many regions do not have well-equipped laboratories. Prof Dr Drosten added that the establishment of large-scale surveillance structures that work in real time plays a key role in the prevention of and rapid response to the outbreak of new pandemics. African countries must also be prepared to invest more in this area. The One Health approach of the German Federal Ministry for Economic Cooperation and Development (BMZ) is also concerned with better preparation for infectious diseases, as well as for diseases caused by climate change, explained Dr Morgenroth-Klein. Here, the aim is to promote a holistic approach that takes into account not only humans but also animals, and to build up a worldwide network to increase the ability to respond to pandemics. The goal is to implement concrete measures within seven days after the discovery of a disease - how this can actually be implemented internationally remains an open question. Another focus of the One Health approach is the education and training of health workers and local capacities. Here, for example, there is close and successful cooperation with the Economic Community of West African States (ECOWAS). The World Bank has also set up a special fund for pandemic prevention. However, Dr Morgenroth-Klein criticised that this fund is currently drastically underfunded: while researchers have calculated that effective pandemic prevention requires a budget of 10.5 billion US dollars, the international community has currently paid in just 1.4 billion US dollars.