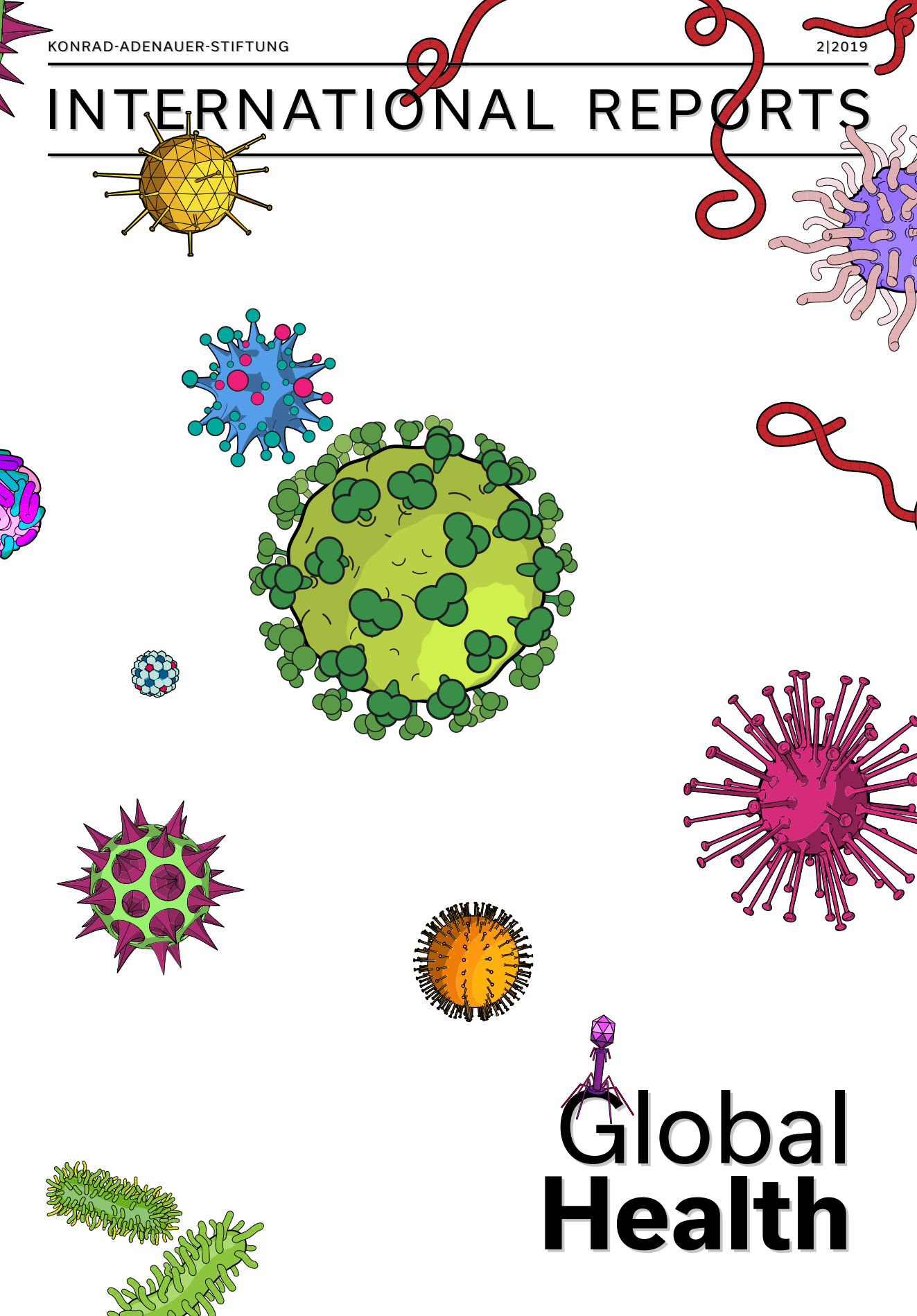


# INTERNATIONAL REPORTS



  
**Global  
Health**



# INTERNATIONAL REPORTS

2 | 2019

## Editorial

Dear Readers,

“Whether for humanitarian, development policy, economic reasons or out of self-interest, it is necessary to contain the spread of diseases. As a community of nations, we have a joint responsibility to do so”, said German Chancellor Angela Merkel in Berlin this May. This is not the only statement demonstrating how the international community of nations increasingly turns its attention to establishing and protecting Global Health architecture, in which Germany plays a central role. This is the emphasis of Ilona Kickbusch’s article in this issue, too. Despite positive developments, it is urgently necessary to invest even more in this field and for Germany’s own activities to be better coordinated. This also calls for joint European commitment, as Daniela Braun points out in her article on the current status of European health security. Only cooperation at the EU level will enable the timely identification and containment of Global Health risks such as pandemics. The previous EU mechanisms are an important step in the right direction, but existing structures need to be progressively consolidated and refined.

Ultimately, the global strengthening of health systems in all countries will pay off, as Christopher Elias argues in the subsequent interview. Governmental and civil society actors must work together with representatives of business to guarantee that developing and emerging countries in particular enjoy basic medical services. Peter Hefele says that the people in these countries are most sensitive to the relationship between climate change and health. Climatic changes have both a direct and indirect impact on human health. Thus, it is important to focus more sharply on a Global Health policy that is resilient in the face of climate change.

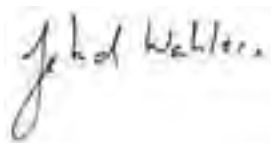
Examining specific developing and emerging countries shows how governmental failure increases the risk of epidemics and pandemics spreading. While the HIV crisis in South Africa seems to be under control despite significant shortcomings and current increases in new infections, as Michaela Braun relates, the Ebola crisis in the Democratic Republic of the Congo, about which Benno MÜchler writes, is more acute than ever. In both cases, governmental failure can be identified as one of the obstacles to successfully combatting these diseases. The international community of nations must draw lessons from this and develop proactive mechanisms that contain local crises and prevent the cross-regional spread of diseases by enhancing structures on the ground.

Veronika Ertl and Martina Kaiser also believe that it is the responsibility of the international community to build and maintain suitable local structures in order to achieve global sustainability goals in the area of health. These goals, which incorporate health as a factor, are especially difficult to achieve in fragile countries characterised by conflict such as Venezuela and Yemen.

In recent years, Germany has assumed international responsibility in the area of Global Health. The Federal Chancellor and her Health Ministers, Hermann Gröhe and Jens Spahn, have greatly increased Germany's commitment in this policy field. There is no doubt that all regions of the world have to overcome different health policy tasks. However, since the world has grown into a lively exchange of people and goods, the consequences of Global Health risks cannot be limited to individual regions. The articles in this issue clearly show that ultimately every country must intensify its cooperation in the health sector. This is the only way to effectively improve the health of all people worldwide. Germany, with its expertise and innovative capabilities, can continue to assume international responsibility that lies in its own interests: Health is an important prerequisite for economic and social development, security, democracy, a life of dignity, and for tackling root causes of migration and flight.

I wish you a stimulating read.

Yours,

A handwritten signature in black ink that reads "Gerhard Wahlers". The signature is written in a cursive style with a large initial 'G'.

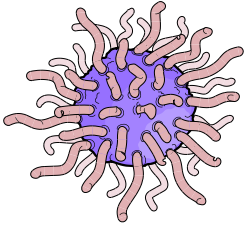
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**Dr. Gerhard Wahlers** is Editor of International Reports, Deputy Secretary General and Head of the Department European and International Cooperation of the Konrad-Adenauer-Stiftung (gerhard.wahlers@kas.de).

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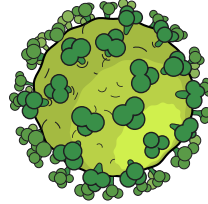
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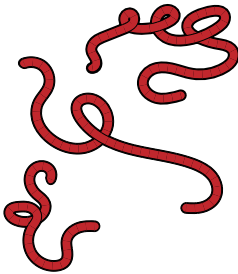
## Coxsackievirus

The coxsackievirus can cause herpangina, hand, foot, and mouth disease (HFMD), Bornholm disease, and respiratory tract diseases. Large HFMD outbreaks occur primarily in the Asia-Pacific region. Since 2009, one to two million cases have been reported each year in China. But the mortality rate is low for this virus. [Source: RKI](#)



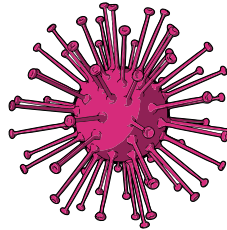
## HIV

The human immunodeficiency virus is responsible for AIDS. In 2017, 1.8 million people were newly infected, and 940,000 died of the disease. Although available antiretroviral treatment does not cure the disease, it does slow the spread of the virus. [Source: WHO](#)



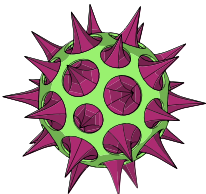
## Ebola virus

The Ebola virus causes Ebola virus disease (EVD). The outbreak of this disease from 2014 to 2016 in West Africa caused more than 11,000 deaths. The virus is currently spreading again. An effective vaccine should be licenced shortly. [Sources: RKI, WHO](#)



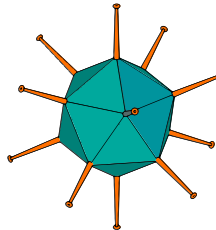
## Epstein-Barr virus

The Epstein-Barr virus can manifest itself as glandular fever and is thought to be carcinogenic. More than 90 per cent of people become infected with this virus during the course of their lives, usually without symptoms or consequences. There is no vaccine so far. [Sources: DZIF, BMBF](#)



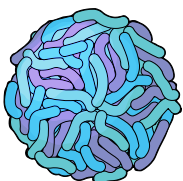
## Varicella-zoster virus

The varicella-zoster virus can cause chickenpox and shingles. Unvaccinated, almost every member of the population will contract chickenpox by middle age. It is estimated that chickenpox kills 4,200 people each year. [Sources: RKI, WHO](#)



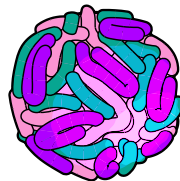
## Adenovirus

The adenovirus is responsible for various diseases, primarily ocular, respiratory, and gastrointestinal infections. Conjunctivitis and corneal inflammation are communicated especially frequently. No precise numbers are available, but the adenovirus appears to be connected with two to five per cent of all respiratory diseases. [Sources: RKI, BZgA, WHO](#)



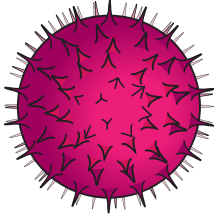
## Zika virus

The Zika virus is usually contracted from mosquitoes, and its symptoms tend to be milder than those of other tropical diseases. It leads to malformations in the brains of unborn children, however. There is no vaccine for the virus so far. [Source: RKI](#)



## Dengue virus

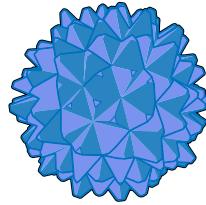
The dengue virus causes dengue fever. It is estimated that 390 million people are infected with it each year, with 96 million cases reaching clinical severity. Worldwide, it causes up to 25,000 deaths annually. [Sources: WHO, World Mosquito Program](#)



## Herpes simplex virus

There are two types of the herpes simplex virus. One causes oral herpes including "cold sores" (HSV-1), and the other causes genital herpes (HSV-2). Worldwide, around 3.7 billion people under 50 are infected with HSV-1.

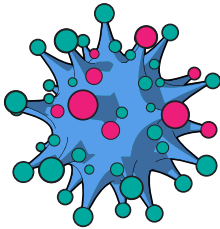
Sources: WHO, BMBF



## Papillomavirus

The human papillomavirus (HPV) can lead to such diseases as cervical cancer. Worldwide, this is the fourth most frequent tumour for women. In 2012, 528,000 women were diagnosed with cervical cancer, and the disease resulted in 266,000 deaths.

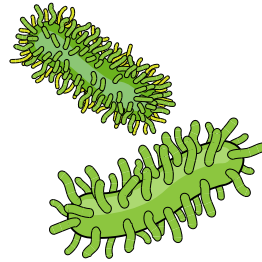
Source: RKI



## Coronavirus

Coronaviridae are a virus family that causes various diseases. Among them are the common cold, SARS, and MERS-CoV. Since MERS-CoV was discovered in 2012, 2,428 infections have been confirmed in laboratories, and it has caused 823 deaths.

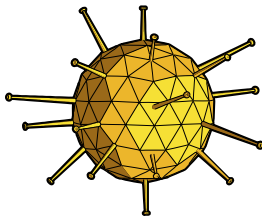
Sources: WHO, BMBF, RKI



## Rabies virus

The rabies virus is deadly if there is no intervention before or immediately after infection. Each year, 59,000 people die because of this virus, most of them in Asia and Africa.

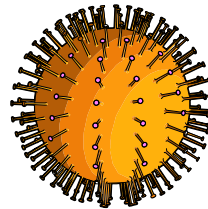
Sources: WHO, RKI



## Nipah virus

The Nipah virus can spread from animals to humans. It causes acute respiratory diseases and deadly encephalitis. From its discovery in 2001 until the end of May 2018, the virus caused 346 infections and 260 deaths.

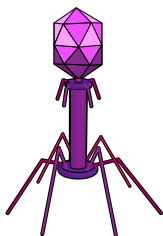
Sources: WHO, RKI



## Influenza A virus

Influenza viruses cause the flu. An Influenza A virus infection can be especially severe. It is estimated that between one and seven million doctor's visits each year are related to influenza. If left untreated, the virus can be deadly: It caused 20,000 deaths in 2013.

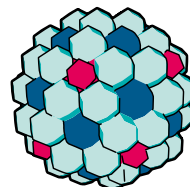
Source: WHO



## Bacteriophage

Bacteriophages are naturally occurring viruses that are traditionally used to combat bacterial infections. As bacteria are becoming increasingly resistant to antibiotics, bacteriophages are an effective alternative.

Sources: RKI, DZIF, DSMZ



## Parvovirus

The parvovirus's pathology is not always clear. The virus can trigger such complaints as rubella and is especially dangerous during pregnancy. For the last few years, the foetal death rate due to this disease has fallen sharply since the parvovirus was identified as the cause.

Source: RKI

# Global Health



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Source: © Wolfgang Rattay, Reuters.

*Interjection*

Global Health

# Germany Has to Invest Even More in Global Health

Ilona Kickbusch

For some time, Germany has been extremely active in the field of Global Health and has contributed greatly to shaping central elements of Global Health structures. Nevertheless, Germany should continue to invest in expanding Global Health infrastructure and coordinate its own activities even more closely than it has in the past.

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Over the last ten years, Germany has played an active role and positioned itself well in the area of Global Health. This became clear from the prioritisation of health during the 2015 German G7 presidency in the aftermath of the Ebola epidemic in West Africa, and during the 2017 German G20 presidency, which witnessed the first meeting of the G20 health ministers. Since then, German assistance to the World Health Organization (WHO), the Global Fund to Fight AIDS, tuberculosis, and malaria, the Gavi Vaccine Alliance, the Coalition for Epidemic Preparedness Innovations (CEPI), and new investments in combatting antimicrobial resistance (AMR) has garnered international recognition and support. These efforts and strong dedication to health as a human right, to environmental protection, education of girls and women, and thanks to its long tradition in the area of social security and enhancing health systems, Germany is already playing an important role in expanding Global Health with a number of international initiatives.

Germany has had a decisive influence on improving health security on a global scale. It is one of the main donors to the WHO Contingency Fund for Emergencies, which was set up to react quickly to health crises. Less well known but just as meaningful is the German contribution to Global Health in the humanitarian area. As a member of the UN Security Council, Germany draws attention to humanitarian health concerns, attacks on medical facilities and medical personnel, and rape in conflict situations. Germany is an important host country for refugees and one of the most important donors to the UN Refugee Agency.

In its coalition agreement, Germany set itself the ambitious goal of ratifying a new strategy for Global Health policy. An international advisory body was established for this purpose and has now (June 2019) presented its recommendations. Over the past few years, Germany has assumed a strong leadership role in Global Health policy. This is crucial at a time when obligations to multilateralism and joint action at a global level are being called into question. The strategic focus should be on forward-looking issues and is to be implemented in a government-wide, multi-sector, interdisciplinary manner. Promoting innovation is especially important, especially with respect to digital transformation and the correlations between the environment, climate, and health (planetary health). In Germany, there is still no recognised specialist discipline or career structure in the area of Global Health. Investment in the expansion of Global Health research is needed in Germany, especially at universities. A Global Health Innovation Institute, connected to existing German centres of excellence at universities or establishments, such as the Leibniz Association, would send a clear signal.

**Despite having taken important steps, Germany needs to invest more in its own Global Health research.**

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To maintain and expand its leadership role, Germany must complement its policy ventures with significant investments if it is to establish sustainable, effective, excellence-based infrastructures for Global Health. Responsibility for this



Investing instead of waiting: In order for Germany to retain its leading role in Global Health, the country's research has to be driven forward. Source: © Ralph Orlowski, Reuters.

lies not only with the government, but also with many other players in Germany, such as the German federal states and German foundations and institutions for funding research. While German funds for financing Global Health abroad and for international organisations have greatly increased in recent years, it is important to continue to fulfil international obligations such as achieving an ODA/BNE rate of 0.7 per cent, of which at least 0.1 per cent must be allocated to the area of health. The Federal Republic should

also commit itself to significantly increasing mandatory WHO contributions.

Germany has initiated a number of important steps for placing Global Health on the political agenda over the long-term. Much has been done, but what has been achieved must be buttressed with sustainable structures and mechanisms. The creation of a parliamentary sub-committee for Global Health, budget increases for Global Health in the Federal Ministries of Health,

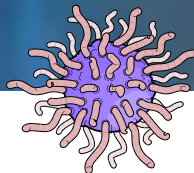


Coordination and coherence continue to pose a major challenge, and the advisory body report contains several proposals on that score. A new strategic coordinating body for Global Health could contribute to ensuring transparency and responsibility. Appointing a Global Health ambassador for Africa might secure the coordination of various Africa strategies relating to Global Health on the part of the German federal government. The body recommends that Germany should continue to consolidate its leadership role in the area of Global Health. A special opportunity to do so is afforded by the upcoming Presidency of the European Union in 2020.

*-translated from German-*

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**Dr. Ilona Kickbusch** is a professor at the Graduate Institute of International and Development Studies in Geneva, where she serves as Director of the Global Health Centre.



Economic Cooperation and Development, and Education and Research, and the establishment of the Global Health Hub Germany, are examples of growing commitment to Global Health and a willingness to anchor that commitment in the German policy landscape. The World Health Summit continuously offers an important, well-respected, international platform for networking.



Source: © Robert Galbraith, Reuters.

[Global Health](#)

# Pandemics: How Well-Prepared Is the EU?

Daniela Braun

Epidemics and pandemics pose a real danger in the highly connected 21<sup>st</sup> century. Densely populated areas like the EU, with lively exchange of goods and services, are especially susceptible to the rapid spread of infectious diseases. The good news is: we can prepare ourselves – but it won't be easy.

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### **Welcome to the Age of Pandemics**

The pathogen that holds the attention of the G20 health ministers during their meeting in Berlin is a new and particularly dangerous one. The virus is spreading rapidly beyond national borders. Health systems are overwhelmed by the rapid rise of infected people and are on the point of collapse, air traffic has been suspended and stock markets are beginning to plummet. The outbreak is dominating headlines worldwide, generating fear and even panic. The emergency exercise scenario simulated by the G20 health ministers in Berlin in 2017 was purely fictional, but by no means unrealistic.

It is erroneous to believe that developing countries with weak health systems and practically non-existent state management are the only ones affected by epidemics. Severe Acute Respiratory Syndrome (SARS) was the first pandemic of the 21<sup>st</sup> century, spreading in 2002/2003 from southern China to the hub of Hong Kong and from there all over the world, causing serious damage in Singapore, Canada, and elsewhere. Flu viruses mutate rapidly and adapt quickly to external circumstances, giving them a high pandemic potential as well and presenting a threat to all countries.

New pathogens are especially good at using strong networking to spread across great distances, inflicting major damage. This is especially true of regions that are strongly interconnected through the exchange of people and goods. "In Europe, the increasing number of airline passengers with larger travel hubs mean that an emerging disease can reach a European city within a matter of hours. We also have a

large population of over 750 million people and densely populated cities," says Prof Máire Connolly, who coordinates the EU PANDEM (Pandemic Risk and Emergency Management) project.<sup>1</sup>

### **Infectious Diseases on the Rise**

In the 1960s and 1970s, the prevailing assumption was that infectious diseases would be defeated in the years to come. After all, medical advances and improved standards of living had suppressed diseases such as smallpox and malaria, which had afflicted humanity for centuries. Today, this optimism has dissipated entirely. Infectious diseases continue to account for very high death rates and cause tremendous damage. They are gaining ground throughout the world, and the threat of a pandemic has risen due to the high degree of global networking and mobility. The WHO declared health emergencies in 2009, 2014, and 2016 because of the spread of swine flu, setbacks in the fight against polio, the Ebola outbreak in West Africa, and, recently, because of the Zika virus.

The return of epidemics is particularly driven by megatrends closely connected to globalisation. The great increase in travel and commerce combined with such factors as urbanisation, climate change, and environmental degradation, means that the risk of epidemics and pandemics has reached unprecedented levels. Climate change, for instance, has led to an increase in mosquitoes that transmit dangerous diseases, so that a greater number of people are exposed to the pathogens that they carry as well as poorly prepared regions also being increasingly affected. Environmental

degradation such as deforestation and human penetration into pristine nature reserves, contributes to higher levels of contact between humans and animals, increasing the incidence of pathogens passing from the animal kingdom to humans. A majority of infectious diseases affecting humans originally derive from animals. Among them are Ebola, Nipah, SARS, HIV, and rabies.

Unfortunately, according to researchers and based on recent events, the danger of a pandemic in the hyper-connected 21<sup>st</sup> century is higher than most other times in human history. The acceleration of underlying trends such as

urbanisation and environmental degradation will serve to further increase pandemics and epidemics. Fortunately, we are well positioned to take precautions to prepare ourselves for epidemics. This does not mean that preparing for epidemics and pandemics is an easy task – quite the contrary: This is one of the greatest challenges of the 21<sup>st</sup> century. Over the past few years, we have gathered and evaluated important experience in how to handle epidemics. Putting these lessons into practice may contribute towards improving such efforts in future.

But what is the current state of preparation for combatting infectious diseases in Europe, a



A global threat: In the hyperconnected 21<sup>st</sup> century, the threat of a pandemic is as high as seldom before.

Source: © Kim Hong-Ji, Reuters.



region that is characterised by dense settlement and a high level of exchange of people and goods?

### **Preparing for Pandemics – One of the Greatest Challenges of the 21<sup>st</sup> Century**

There is no simple answer to this question. Expectation management is greatly needed. Ideally, the international community would successfully identify outbreaks and contain them before they spread across entire regions or several continents. Therefore, each pandemic demonstrates that the correct steps have not been taken in the areas of prevention, early detection, risk assessment, and reaction. Nevertheless even if we enhance each of these levels in the fight against pandemics – something that we must urgently work toward – it is safe to assume that, in future, we will at times face epidemics that spread over great distances. While the level of ambition in the area of combatting epidemics is to prevent outbreaks in the long term, the realistic goal for the foreseeable future will include managing severe epidemics. This is due to the complexity and extent of the task and the countless different disease outbreak scenarios.

For example, methods for successfully combatting an epidemic are specific to the disease in question. Is it a highly lethal flu virus, such as the H5N1 avian influenza virus, or an airborne and thus highly contagious pathogen such as H1N1, also known as swine flu? Is it a retrovirus like HIV or a disease like Zika or malaria that is transmitted by mosquitoes? Or is it a new kind of pathogen for which we are entirely unprepared? Are there effective medicines or vaccines for this pathogen? Could it mutate, and what would the potential implications be? The WHO tries to anticipate such questions by keeping a list of pathogens that it describes as priority; however, the list contains seven diseases plus “Disease X”, which stands for an entirely new pathogen. Successfully combatting an epidemic also depends on the conditions at the place of outbreak. How many health workers are there? What type of training do they have? How well are hospitals equipped? The level of trust in

government and medical institutions can also be decisive in combatting epidemics. All of these factors and many more need to be monitored when an epidemic threatens and experts must react.

### **Various measures can reduce the probability that a pandemic will arise.**

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Furthermore, combatting epidemics cuts across many areas of national and international policy such as agriculture, trade, research, development and security. Especially in the arena of prevention, disease protection should be considered an integral component of development, trade, research, and agricultural policy, since these are areas where measures can be introduced to reduce the incidence of epidemics and pandemics.

#### **Health Crises as a Motor**

As a region with open borders and lively exchange of people and goods, the EU is susceptible to the rapid spread of infectious diseases. Since the 1990s, the EU, and especially the European Commission, has therefore engaged in preparing for pandemics and health risks in various ways.<sup>2</sup> EU activities should therefore be seen as a complement to existing mechanisms. On the one hand, these mechanisms include national pandemic plans, which a 2003 WHO resolution requires each country to prepare, as well as the many international measures implemented by the various sub-organisations of the United Nations, the World Bank, and numerous NGOs, on the other.

The emergence of health risks usually served as a driver for the development and implementation of measures and instruments for protecting against health threats at the EU level. For instance, the BSE epidemic which in the 1990s spread from the United Kingdom to other EU states and had the potential to pass to humans in



the form of Creutzfeldt-Jakob disease, resulted in fierce criticism of the EU's insufficient consumer protection regarding health care. In the aftermath, the independent European Food Safety Authority was founded in 2002.<sup>3</sup> This example shows that effective protection against epidemics affects not only health policy, but also interventions in a number of policy areas – in this specific case, agriculture and consumer protection.

Yet other health crises have also led the EU's decision-makers to recognise how urgent reform steps are in preparation for the impending challenge and that necessary resources must be provided. The Health Security Committee (HSC) was established in the wake of the 2001 anthrax attacks in the US, the European Centre for Disease Prevention and Control (ECDC) was founded after the SARS pandemic of 2002/2003, and, most recently, the European Medical Corps (EMC) was organised in February 2016 after the Ebola crisis of 2014/2015 demonstrated the necessity of a quick reaction force. The European Commission has thus already implemented important measures to counter future health risks more quickly and comprehensively. Below is an overview of some of the EU's instruments and measures, a description of how they work and are equipped, and where further action is needed. The instruments introduced here are a selection of measures with a focus on their importance.

### **The Health Security Committee – Improving Coordination and Advice**

The Health Security Committee (HSC) is the EU's central advisory and coordination body in the area of prevention, preparation, and reaction to cross-border health hazards. It was initiated by the Commission and the member states in the aftermath of the 2001 anthrax attacks in the US and formalised in 2013, following the 2009 H1N1 flu pandemic.<sup>4</sup>

The HSC holds regular meetings in Brussels among representatives from the health ministries of member countries and a few neighbouring



countries as well as (in some cases) from the WHO under the chairmanship of the Commission – specifically, of the relevant Directorate-General.



Infectious diseases are on the rise: In the 1960s and 1970s, it was still believed that infectious diseases could be defeated within the next few years. Today, this kind of optimism has mostly evaporated. [Source: © Thomas Peter, Reuters.](#)

The committee's mandate is focused on the exchange of information and coordination of individual measures with respect to health

threats. Its tasks encompass detecting health risks, quickly transmitting information, and coordinating the reaction among member states, the EU

Directorates-General, and agencies. The committee also collects scientific data for establishing and evaluating risks and specific threats, which it reports to national authorities. The epidemiological data used as the basis for assessing risks primarily come from the European Centre for Disease Prevention and Control (ECDC). The HSC also supports member states in preventing and preparing for health risks by providing scientific and technical expertise and improving emergency planning.

## **The cross-cutting character of health care requires Europe-wide coordination between affected agencies.**

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With the HSC, the European Commission created an important instrument for combatting epidemics in the area of coordination among individual member states at the EU level and providing scientific and technical information. The option of greater coordination among the EU Directorates-General and agencies that work on preventing health hazards in completely different offices within the EU was a necessary step. Improving coordination within the EU should continue to be vigorously pursued and be incorporated in the HSC. This is because efforts at combatting health threats always tend to unravel owing to the cross-sectional character of the area and the fact that it affects numerous different policy areas. Nor should the initial cautious positive evaluation of the committee obscure the fact that it has no authority to make recommendations mandatory. It is merely a coordinating and advisory body and is reliant on member states for cooperation and information sharing.

### **The European Centre for Disease Prevention and Control**

The European Centre for Disease Prevention and Control (ECDC), whose very name is reminiscent of the powerful American CDC (Centers for Disease Control and Prevention)

was founded in 2005 as one of the lessons taken from the 2002/2003 SARS pandemic. The disease, still unknown at that time, spread rapidly from China to Hong Kong and from there all over the world, making it painfully clear to the international community how quickly new, highly contagious diseases can spread unnoticed in the hyper-networked 21<sup>st</sup> century and what damage they can do. In this context, the EU decided to establish its own disease control authority.

The EU agency, headquartered in Stockholm, is responsible for epidemiological monitoring and control of 52 infectious diseases and supports the EU in combatting health risks. As a scientific agency, the Centre provides data to EU decision-makers and member states and carries out risk assessments on the incidence of certain communicable pathogens. The agency also advises institutions on the appropriate countermeasures to be initiated in view of the incidence and spread of a certain infectious disease. The ECDC collects and evaluates the appropriate information by monitoring disease data and using various instruments of epidemic intelligence.

The operational capacities of the EU agency are much weaker when compared to those of the American CDC. For instance, during the Ebola crisis in West Africa, only a limited number of experts from the ECDC were on the ground, and those that were, played no significant role in the countries most affected, while CDC personnel were there in great numbers supporting West African countries to tackle the deadly epidemic. Admittedly, compared to the American disease control agency with its annual budget of around seven billion US dollars (2017) and its 12,000 employees, active in all 50 states and 120 foreign countries, the ECDC with its 290 employees and a budget of 58 million euros (2017), is poorly endowed.<sup>5</sup> It is true that the EU agency cooperates with relevant national agencies, such as the Robert Koch Institute in Germany, to improve European disease protection, but the ECDC's capacities – especially in the area of operational crisis reaction – are much more

limited than those of the Americans. In light of the microbiological threat situation, urgent consideration should be given to upgrading the resources for the ECDC in order to expand it into a powerful disease control agency, with the potential of becoming more active abroad.

### **Early Warning**

In addition to European coordination of reactions to a disease, especially by the HSC, and the provision of epidemiological data by the ECDC, early-warning systems could play an important role in combatting epidemics and pandemics. The digitalisation and availability of many online data sources have resulted in new options for epidemiological monitoring systems that use big data to discover indications of disease outbreaks that have pandemic potential. There are thus various monitoring and early-warning systems at both national and international levels operated by the WHO, individual governments and NGOs or research platforms. Among the best-known international early-warning systems are the Global Public Health Intelligence Network (GPHIN), established in 1997, and the Global Outbreak Alert and Response Network (GOARN), to whose data the EU also has access.<sup>6</sup>

### **Early-warning systems must always be used in conjunction with a relevant risk analysis and a suitable reaction.**

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The EU also operates its own early-warning systems such as the EU Early Warning and Rapid Response System (EWRS). This system is essentially an IT platform via which the ECDC or individual member states can indicate a threat – a dangerous biological situation that may affect the entire EU. This platform provides a great deal of information about the pathogen from a number of systems. EWRS connects employees with health agencies in member states and allows them to exchange information about the pathogen.<sup>7</sup>

Furthermore, the EU has developed the Medical Intelligence System (MediSys). MediSys searches news articles in the internet for abnormalities, classifies them according to various categories, and uses an algorithm to generate notifications pertaining to potential health risks.<sup>8</sup>

Hence, the various early-warning systems equip the European Commission with a great deal of information about epidemics and pandemics that may develop. Although these systems represent an important component of disease protection, the massive expansion of early-warning systems over the past few years have not prevented severe disease outbreaks and it is questionable whether additional systems will add any value. Much more decisive, although admittedly more difficult, is the performance of appropriate risk assessments on whose basis suitable containment measures are initiated. If such assessments are not performed, the best early-warning system will be powerless against the spread of an epidemic or pandemic. The 2014/2015 West Africa Ebola epidemic makes this particularly clear: While the mysterious disease that spread in Guinea from December 2013 was identified as the Zaire strain of Ebola (the most deadly) as early as March 2014, a public health emergency was not declared until August, and most of the large amounts of international aid arrived from September onward. This gave the epidemic a six-month head start. Early-warning systems are one thing, but appropriate risk assessments resulting in suitable reactions and the quick provision of resources are another.

### **Quick Reaction Force: The European Medical Corps**

The quick provision of personnel and material for combatting a health crisis was one of the most important lessons learnt from the Ebola epidemic. What is more, the European Medical Corps (EMC) was created at the EU level as early as February 2016. The EMC is part of the existing EU European Response Capacity disaster control structure, which in turn is part of the Directorate-General for European Civil Protection and Humanitarian Aid Operations.

The EMC is primarily a pool of equipment and expert teams from the medical and the public health sector that can be deployed quickly. Eleven member states contribute voluntarily to the 17 teams and EMC material. Germany provides experts from the Robert Koch Institute and a mobile laboratory from the Bernhard Nocht Institute for Tropical Medicine.

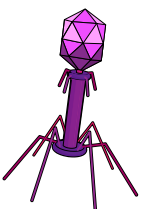
The Medical Corps currently consists of personnel and material that aim at combatting health crises with a variety of contributions. On the one hand, there are emergency teams that consist primarily of medical personnel. They can directly treat diseased individuals in the affected area. Public health experts also ensure that, during a health crisis, the situation on the ground is analysed and appropriate countermeasures are initiated. These teams can offer such things as training in dealing with infected individuals, organise education and vaccination programmes, and provide behaviour recommendations for containing the crisis. Mobile biosafety laboratories can contribute to quickly identifying those who are infected. This makes it possible to isolate and treat these people, hence interrupting further chains of infection. The EMC also has medical evaluation capacity so that, if there is a mass infection, EU citizens, humanitarian aid workers, or medical personnel can be evacuated. For instance, to allow evacuation of infected aid workers during the Ebola epidemic in West Africa, the German federal government provided a converted plane with an isolation unit that could be hermetically closed off. Another part of the EMC is the logistics team and experts who can assume overarching coordination between the EU, affected countries, the United Nations, and other players in a crisis situation.

The EMC public health team has taken part in several missions, including the 2016 Angola yellow fever outbreak. Epidemiologists assessed the situation on the ground, evaluated control measures that had already been implemented, advised and supported the local authorities, and performed risk estimates for the EU. In November 2017, at the request of the WHO a mobile laboratory was sent to Uganda via the EMC mechanism to help local authorities and the WHO, CDC, and MSF combat a Marburg outbreak.<sup>9</sup>

The EMC gives the EU promising, fast, flexible deployment capacity for personnel and material in crisis situations. The first missions appear to have been successful according to many experts. However, a few critical voices fear that the increased efforts to establish measures focused on event-based detection and reaction to severe health crises are causing the EU to lose sight of sustainable, long-term health policy that preferentially uses resources to enhance health systems and means of prevention.

#### **External Dimension: EU Global Health Policy**

A comprehensive disease-control policy is a cross-cutting issue that affects a number of areas of policy, invests in the intertwining of external and internal dimensions, and should always consider prevention. An active health policy and the promotion of Global Health are important steps in combatting pandemics and epidemics. For instance, the EU is a member of the Global Health Security Initiative (GHSI), an informal association of states whose aim it is to minimise health threats. The European Commission, one of the largest development fund donors, also contributes to expanding and strengthening health systems all over the world. As a whole, however, the EU's involvement in Global Health has lagged well behind expectations, and scarcely any overarching strategy is discernible. The EU did ratify a strategy for its foreign health policy in 2010, but in 2019, this is now outdated and has had no permanent impact; leaving the EU far behind its potential. It





Preparation is everything: National and international actors must come together to take preventive measures, encourage early detection, evaluate the risks, and react accordingly in hazardous situations. Source: © Philippe Wojazer, Reuters.

is currently unable to effectively pool the numerous health-related measures performed by various EU players. Doing so would make it better able to act outside its borders. And the fact that large member states pursue their own foreign health policy and do not necessarily coordinate them with the EU, contributes to limiting the EU's role in Global Health policy. For instance, it does not usually manage to speak with one voice within the WHO or other UN organisations.<sup>10</sup>

### **There Are Still Urgent Problems**

How well-prepared are we for a pandemic? As indicated above, expectation management is called for here, since there is no simple answer to this question. What we do know is that the EU has not been passive during past health

crises such as SARS, H1N1, and the Ebola epidemic, but has learnt important lessons and implemented a number of measures. It also finances various organisations and research projects devoted to improving preparation for and reactions to pandemics. What's more, the EU promotes the use of safe vaccines and supports member states in coordination, procurement, research, and innovation.<sup>11</sup> The EU's action plan for combatting antibiotic resistance ratified in June 2017, addressed one of the most ominous developments in the world of microorganisms.<sup>12</sup> Overall, Europe is currently better prepared for a severe epidemic or pandemic than it was just a few years ago. Nevertheless, a comprehensive answer to this question depends greatly on the type of pathogen and the severity of the pandemic scenario.

EU weaknesses in the area of reaction to pandemics are especially great when it comes to coordinating individual EU measures and among member states. While the HSC gives the EU an instrument for improving coordination, it lags behind expectations. There continues to be too little coordination among the EU's many measures and instruments which, as the cross-cutting nature of the issue requires, involve a large number of Directorates-General and agencies. A cross-sector coordination mechanism is urgently needed. It should be integrated into the HSC, where a number of threads already come together. However, other Directorates-General and EU agencies involved in managing pandemics should also be represented.

There is also a fragmented picture with respect to member states – some have adopted far-reaching measures while others are scarcely prepared at all. The varying standards and approaches by the individual states, such as clinical studies and research results, make it very difficult to collect and evaluate data at the EU level; this has implications when preparing for pandemics.<sup>13</sup> There is also urgent need for action in coordination and adaptation, and this should be discussed and pressed forward in the HSC.

The Global Health strategy update as currently implemented by the German federal government, is urgently needed at the EU level. The US's withdrawal from Global Health matters under the current administration marks the absence of what was formerly one of the largest sponsors, and the United Kingdom's exit robs the EU of what was hitherto a strong contribution to the Global Health system, too. The EU should therefore urgently revisit its role and increase the resources it assigns to this area.<sup>14</sup> This is an indispensable step on the road to improved disease prevention policy because, no matter where in the world a disease outbreak occurs, global networking can bring it to Europe sooner or later. In this context, financial and personal resources provided to the ECDC ought to be improved and the mandate expanded to include enhanced monitoring of pathogens

outside EU territory. In addition to this external dimension, the EU should also consider enhancing health systems in member states and contribute to the access of affordable, safe medications. Austerity measures in reaction to the economic and financial crisis have had repercussions on health systems, especially in the countries of Eastern and Southern Europe.<sup>15</sup> Infectious diseases can spread especially quickly in those areas where the health systems are fragile. It is therefore important to equip health systems in such a way that they can treat a large number of patients quickly and safely while protecting their own health care workers.

Even though the EU is already doing a great deal to prepare for epidemics and pandemics, there are still some urgent problems. This is no easy task, and it will require a great many resources. But the emergency exercise scenario that the G20 health ministers played out in Berlin in May 2017 is a real one: A pandemic can break out at any time, triggering instability in entire regions. It is important to prepare.

*–translated from German–*

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*Ai: Dr. Elias, you are the president of the Global Development division of the Bill & Melinda Gates Foundation. Can you provide us with an overview of the Foundation's activities – and your division's in particular – in the field of Global Health?*

**Christopher Elias:** The Bill & Melinda Gates Foundation is guided by the belief that every

person should have the opportunity to live a healthy, productive life. To reach this goal, we work in areas of greatest need, where we can make the biggest difference, taking risks others can't or won't and helping to make markets work better for the poor. Our Global Health division covers various areas from discovery and translational sciences to vaccine development and the fight against neglected tropical diseases. Its goal is to develop new health products that could transform the fight against the leading causes of death and disability in low- and middle-income countries. Our Global Development division works with partners around the world to scale up access to existing, high-impact health tools – such as vaccines, drugs, diagnostics, and contraceptive methods – for those who lack access to them. A major focus of this work is to help countries in Africa and Asia build effective primary health care systems. It also drives catalytic progress toward major global goals like polio eradication.

*Ai: With this global perspective in mind, what are in your opinion the most urgent challenges in Global Health?*

**Christopher Elias:** This year alone, five million children are expected to die before their fifth birthday.

And hundreds of millions of others will suffer from diseases and malnutrition that sap them and their communities of their strength and potential. The world has already come up with pretty good solutions to many of these problems, so why do so many still die from preventable diseases? I spend a lot of time at the Gates Foundation working with researchers, civil society representatives, and governments to better understand why tools that work, such as vaccines or anti-malarial bednets, still aren't getting to all the people who need them. Markets rarely work effectively for people living in the world's poorest communities, and so we work to address market failures by investing in new tools to fight infectious disease and the leading causes of maternal and child mortality. We also work with global partners to strengthen health systems and finance the delivery of effective health interventions. These investments provide a huge return on investment by helping millions lead healthier and more productive lives. It is simply unacceptable that a child dies from malaria every two minutes; or that nearly 1,000 young girls and women, primarily in developing countries, are infected with HIV every day. Where you are born should not determine your chances at life. And health systems and economies that serve everyone ultimately benefit the whole world.

*Ai: What does your provision of primary health care and your cooperation with state actors look like?*

**Christopher Elias:** Despite tremendous improvements in Global Health, half of the world's 7.3 billion

people still do not receive essential health services. Closing this gap requires building resilient health systems founded on strong primary health care. Primary health care is the cornerstone of the health system and can meet the vast majority of

people's health needs. It's the trusted place in their communities where people can go for a range of essential health services – from vaccinations, to maternal and newborn care, to family planning.

The Foundation works directly with governments in select countries to help them improve their primary health care systems. For example, we're working with the Ethiopian Ministry of Health to develop dashboards to better visualize data on primary health care systems and use this data to improve decision making.

In other cases, we support governments to leverage the unique strengths of the private sector to deliver care to more people in more places. For example, our investment in Africa Health Markets for Equity helps national purchasing authorities in Ghana and Kenya contract small-scale, private, primary health care clinics to deliver affordable, quality services to people living in poverty.

***Ai:** But you are not only active in stable states. How do political turmoil and precarious security situations affect the Foundation's work on the ground?*

helping to drive economic growth that creates opportunities for people living in poverty. This long-term development work simply is very difficult in the middle of conflict. In such situations, humanitarian organizations often have to focus on providing emergency relief rather than addressing the underlying problems that prevent people in poorer societies from achieving their full potential. To do the latter, you need a degree of stability that doesn't exist in a war zone. Nevertheless, while the link between the security situation of a country or a region inevitably has consequences for what we do, we try to apply a long-term development lens to our work.

**Christopher Elias:** Most of our work is dedicated to improving health, eradicating poverty, and

***Ai:** Could you give us an example?*

**Christopher Elias:** The Gates Foundation spends a lot of time supporting the global commitment to eradicate polio, which is very close to becoming the second ever human disease – after smallpox – that the world will have successfully ended. Of the 125 countries where polio was endemic when the Global Polio Eradication Initiative began, 122 have eliminated the disease. Only three countries are still considered endemic for the disease, and we're only seeing transmission in two – Afghanistan and Pakistan. It's no coincidence that Afghanistan and Pakistan represent the final steps against polio. Both have large regions with hard-to-reach and vulnerable populations, including conflict areas and settings where it is difficult to access children for immunization. Very high population coverage is needed to eliminate polio transmission. Conflict areas are also some of the most likely places for disease outbreaks to erupt and spread, as we've seen with Ebola in the DRC, Guinea, Sierra Leone and Liberia, and with cholera in the Congo basin, Yemen, and the Horn of Africa. The challenge we face is that until a disease can be eliminated from its last stronghold, it can easily escape and make its way back into the world. That's why we say polio anywhere is polio everywhere.



Infant mortality: There are still one million children every year who die of treatable diseases and malnutrition – often due to inadequate health care in their homeland. Source: © Sukree Sukplang, Reuters.

*Ai: Regarding your global partners: The Foundation cooperates intensively with states, first and foremost the United States. Is Washington under the current administration retreating from its leading role in Global Health?*

**Christopher Elias:** For decades the United States has been a leader in the fight against disease and poverty abroad. These efforts save lives; they generate important breakthroughs in science and technology; and American policymakers believe they make the United States more secure by identifying and containing health threats before they become pandemics. Historically, there has been strong bipartisan support in the United States for this work – for instance, PEPFAR (the President’s Emergency Plan for AIDS Relief), was created by President Bush in 2003, and was reauthorized by Congress twice since then, both times with significant majorities. As a strong international ally and partner of the United States, Germany worked with the United States to ensure strong funding for the major Global Health funds that have helped us make so much progress. These include the Global Fund; Gavi, the Vaccine Alliance; and GPEI. Presidential leadership is important, but congressional leadership remains critical as well. We’re hopeful that the President and Congress will continue to see the value in promoting Global Health security as something that is fundamentally in the interest of the United States.

*Ai: So you are not too worried about the tendencies towards “America First” jeopardizing the progress of global initiatives for Global Health?*

**Christopher Elias:** We are very concerned by some of the political decisions that have been taken

under the banner of “America First.” However, there is a reservoir of strong support in the United States among different branches of the government, not to mention from the private sector, civil society and the general public, for Global Health initiatives. That support needs to translate into funding for the institutions that deliver basic health services as well as those advancing medical research, especially into poverty-related diseases. For the most part, it still is. But there is clearly a significant unmet global need.

*Ai: Surely, one should not rely on any single nation to guarantee Global Health security. What role could and should Germany play in this field?*

**Christopher Elias:** More than ever before, German leadership is crucial to the success of this work.

Germany is the fourth-largest donor to the Global Fund historically, and its support has saved millions of lives. Germany’s continued leadership and commitment will also be critical for the Global Polio Eradication Initiative (GPEI), which is launching its 2019 to 2023 strategy this year. Thanks to the GPEI, partners and donors, we have seen a 99 per cent decrease in polio cases globally, and to eradicate this disease for good – and lay the groundwork for a future free of polio – we need the continued support of key donors like Germany.

I am therefore especially grateful for Germany’s incredible leadership on development and health. Through its successful G7 and G20 Presidencies in 2015 and 2017 respectively, Germany brought together the world’s most powerful economies to make new commitments that are ensuring more people have access to basic health interventions and services that keep everyone safer.

Getting results at scale and across borders means both investing in pro-poor research and supporting these strong multilateral organizations that are instrumental in bringing health to the poorest and most vulnerable among us. Germany’s leadership in both areas makes a big difference.

*Ai: The Foundation not only cooperates with governments but also with non-governmental partners and international organizations like the WHO. What is the reasoning behind these partnerships?*

**Christopher Elias:** While governments have the central role in

improving primary health care for their people, donors can also play an important part in driving sustainable progress.

For one, we can help develop the global public goods needed to strengthen primary health care, like better data. Many countries have identified primary health care as an urgent priority, but don’t have the information they need to drive targeted

improvements. That's why the Foundation partnered with the World Bank and World Health Organization to launch the Primary Health Care Performance Initiative (PHCPI), an initiative that works to provide governments with the data, information and support they need to drive evidence-based improvements to primary health care systems. This fall, PHCPI partnered with twelve "trailblazer" governments to develop and launch the first set of "Vital Signs Profiles", a new measurement tool that helps countries better understand, and ultimately improve, primary health care.

A critical moment for sustaining progress in Global Health will come later this year in October, when the Global Fund to Fight AIDS, tuberculosis and malaria will conclude its next fundraising round in Lyon, France. The Global Fund has helped distribute life-saving anti-retroviral therapy, insecticide-treated mosquito nets, diagnostics and other tools that have significantly reduced the burden these diseases place on many of the world's poorest regions. Since the Global Fund was created, the number of people dying from AIDS, tuberculosis and malaria has been cut by a third. However, the new threats presented by growing drug resistance and insecticide resistance mean that we must step up our efforts now, or risk slipping back. This is of the utmost urgency.

Through these and other investments, our aim is to ensure governments have the tools, support and information to drive the changes that will help deliver better health care to their citizens. Ultimately, we envision a world where every person has access to a trusted source of health care in their community – and this begins by working together to strengthen primary health care.

*Ai: Considering all the factors we have discussed, when will this world, where every person has access to a trusted source of health care, become a reality?*

**Christopher Elias:** Well, I wish I had a crystal ball. Back in 2015, every country belonging to the United Nations signed up to deliver on that promise within 15 years. Specifically, they agreed to "ensure healthy lives and promote well-being for all" by 2030. It is an ambitious goal, but an achievable one. We are already well on our way to wiping polio off the face of the earth, a disease that just 30 years ago was affecting around 350,000 people a year. In the last 20 years, childhood deaths have decreased by half. Deaths from malaria and AIDS have also fallen by half since the early 2000s. If we sustain that rate of progress, a world with access to health care for everyone will become a reality sooner than we think.

*The interview was conducted by Samuel Krug.*



[Global Health](#)

# Climate Change and Public Health

Peter Hefele / Louisa Gaus



The world is changing – unsettlingly quickly, and largely as a result of human activity. The effects of climate change can already be felt today, and natural disasters are common events. Climate change greatly affects our health. Accordingly, it is important not only to reduce greenhouse gases, but also to prepare for the weather- and climate change-related consequences, and adapt to them. A climate-resilient health policy will be necessary.

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*“Number of Heat-Related Deaths Rises” – “Asian Tiger Mosquito Advances North”*

The discussion about climate change is no longer simply limited to avoiding climate-damaging greenhouse gases and the sustainable transformation of our societies in a post-fossil fuel age. As the headlines in German newspapers in the summer of 2018, which broke heat records, indicate, German society too must prepare for weather- and climate change-related consequences, which previously belonged to the unpleasant effects of long-distance travels or catastrophe reporting from developing countries.

From a global perspective, the discussion about the massive changes in ecosystems caused by climate change is not new. It is undisputed that the present economic development model used since industrialisation greatly pollutes the air, the seas, and the environment. Scarcely anyone questions the notion that this production and consumption model is not sustainable and, in the long term, will lead to huge losses in biodiversity and rapid warming of the earth’s atmosphere. The complexity of the interrelationships amongst and for the Earth’s ecosystems make the consequences of climate change difficult to assess. Nevertheless, even today, immense effects are noticeable. The increase in natural disasters, heat waves, and irregular precipitation in a great many parts of the world can already be indisputably attributed to the consequences of climate change. While the measures agreed upon to reduce greenhouse gases (mitigation) still remain insufficient, societies all over

the world must also adapt to the huge challenges of dealing with climate change (adaptation). This also includes strengthening the resilience of public infrastructures.

The following overview is therefore intended to raise awareness, especially in Germany, of the fact that critical infrastructures, among them our healthcare system, require preparation for the strains – already discernible today – that the consequences of climate change will bring. A forward-looking and rationally assessing public discussion is urgently needed in Germany too – especially because the country is among the regions of the world which, according to all known scenarios, will (still) remain the least affected by the direct consequences of climate change in the coming decades. However, Germany will be unable to avoid the indirect consequences, nor will it be able to avoid its global responsibilities.

The following analysis is focussed on the international concept of “public health”, because this concept is wider than the German term “*öffentliches Gesundheitswesen*”, and because it better represents the health care system’s links to society as a whole. Furthermore, medium- and long-term climate changes are the focus of this analysis; short-term weather phenomena shall not be considered. And there is one further preliminary observation to be made: adaptations to climate change, particularly changes between warm and cold periods, have significantly advanced the biological and cultural evolution of *Homo sapiens*. However, since the



industrial revolution, these largely natural processes of change have been increasingly shaped and accelerated by man-made emissions of fossil greenhouse gases (Anthropocene age). The steadily rising concentration of such gases reinforces the natural greenhouse effect of the Earth's lower and middle atmosphere. Even a minimal rise in average global temperatures can have significant – although regionally disparate – effects on conditions of temperature and humidity. And this sets off an entire cascade of changes to ecosystems and societal systems. The consequences for one of the cascade levels – the health care system – is the subject of this article.

### **Especially those regions that already experience regular weather-related and geological disasters today can do little to counter them.**

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The relationships between global and regional climate change, changes in ecosystems, and their direct and indirect effects on public health are by no means clear. Whether a change in climate results in an increased incidence of a particular disease, for example, is usually a very complex question. As with many climate-related phenomena (such as migration), cause and effect<sup>1</sup> cannot be simply determined, neither theoretically nor empirically (the so-called attribution problem). This also makes it difficult to produce reliable forecasts concerning the respective effects, or to mobilise politicians and society in favour of preventative measures. Below, global findings shall first be related, and in the final portion, we shall focus on the situation in Germany.

#### **Impacts of Climate Change on Human Health**

The effects of short-term weather-related changes on individual human health are comparatively

well researched. However, there are significant knowledge gaps regarding the mid- and long-term effects on the physical, psychological, and social health of humans – a phenomenon that is familiar in the area of climate research under the term “slow onset” and applies to other negative effects of climate change. A distinction must also be made between *direct* and *indirect* effects of climate on health:

- *Direct effects* on the human body, but also on social associations, are triggered by extreme temperatures such as heat waves and cold fronts, and by extreme weather conditions, such as hail, storms, severe precipitation, floods, and landslides.
- *Indirect health effects* arise in the mid- to long-term as a result of adverse changes to environmental conditions which in turn occur as a consequence of climate change. These range from an increased proportion of biological allergens and pathogens, to a greater incidence of vector- or water-borne diseases, to a systematic degradation of potable water, air quality, and sources of nutrition.

Outlined below are *five effects* that present the main causes of a globally increasing strain on public (and private) health systems. The local intensity of these effects depends largely on local climate conditions and socio-economic circumstances. For instance, the regions that already experience regular weather-related and geological disasters today generally have only a weak infrastructure (e.g. without direct access to hospitals and with insufficient transport routes), meaning the health problems in these areas will be exacerbated further. Coastal regions are also particularly at risk from storms and rising sea levels, as are urban areas, due to their population density. This shows how important it is to take account of the interfaces between health care provision and other areas of general interest (water, energy, food) when designing the relevant policies. These services, in turn, are embedded in overarching global developments, such as globalisation, demographic shifts, migration, and social mobility.

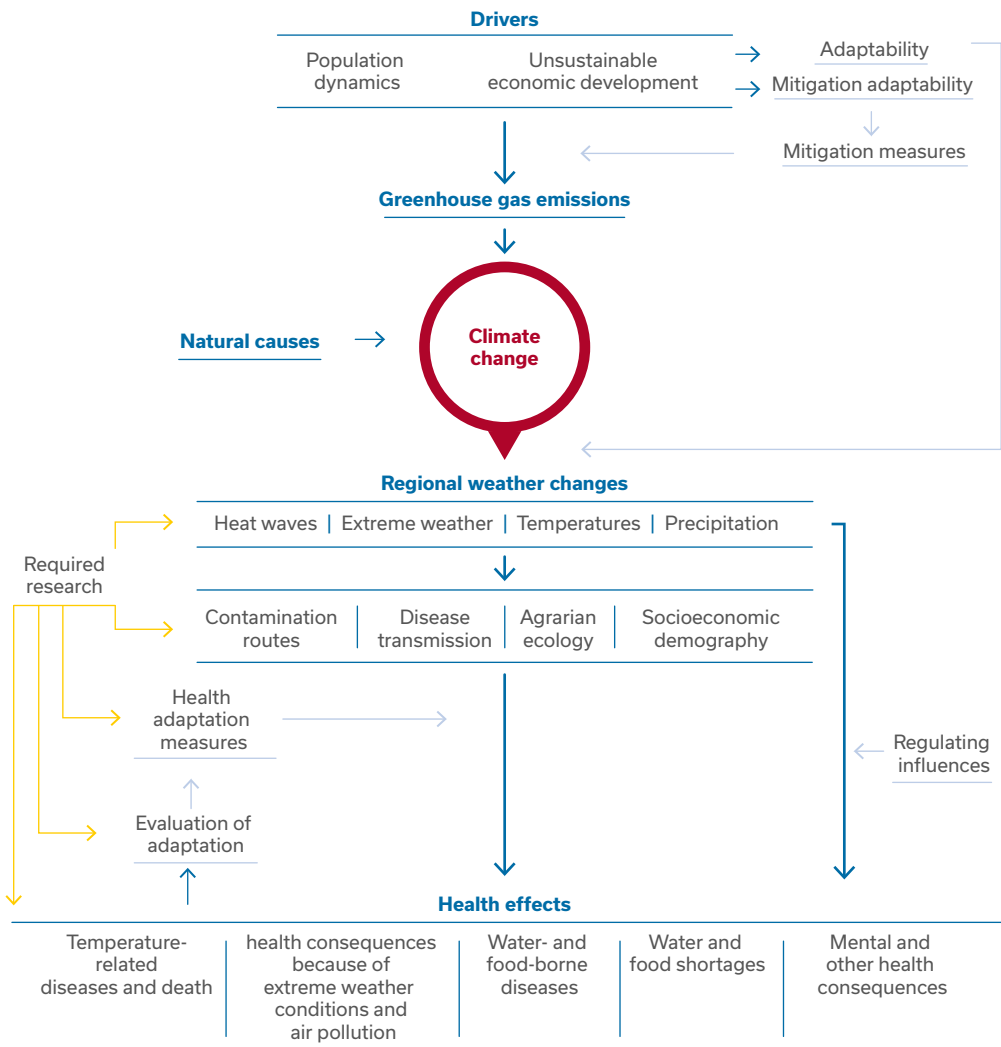
Figure 1 attempts to depict the complex interrelationships between the drivers of climate change, the consequences of that change, and the ensuing health effects on humans. There is, however, a need for further research, especially in the areas of regional weather changes, health adaptation measures, and the manifold effects on human health. Local/regional weather changes and their effects on health are the point at which adaptation measures make the most sense, and are the most effective. Mitigation focusses on slowing, reducing, or even reversing

climate change, which can only be achieved by drastically reducing greenhouse gas emissions.

### *Rising Average Temperatures*

The human organism must constantly deal with climatic fluctuations in its environment. The body reacts to these external stimuli with adaptive reactions, such as sweating or shivering. Extreme changes put the body under stress. There is a close relationship between climatic conditions and human health and well-being.

**Fig. 1: Interdependencies**



Source: Own illustration based on WHO/UNEP 2018.

Studies show that death rates rise if there is a significant deviation – whether an increase or a decrease – from the optimal temperature for a population. The deaths are primarily due to heart and circulatory problems, especially in people with pre-existing conditions. This effect has already been observed in Europe over the last few years. However, the effects on the MENA (Middle East and North Africa) region for example are likely to be much more severe, since temperatures in summer are expected to rise to over 50 degrees Celsius.

However, higher temperatures also lead to longer and more intense flowering periods for plants, as well as extended flight periods for biological allergens, such as pollen, which will contribute to an increased incidence of allergies.

Especially worrisome is an increasing transmission rate of diseases borne by vectors, water, or food that occur especially frequently during sustained periods of warmer temperatures. This poses a great threat to those in developing countries, especially children. Diseases that have so far been limited primarily to tropical or sub-tropical regions (such as malaria and dengue fever) will change their geographical range and seasonality. The intensification and extension of warm periods will allow these diseases to appear in areas where they have previously been rare. Such diseases, which are borne by vectors (mosquitoes, ticks, etc.), present an increasing (or recurring) threat to Mediterranean and even Central European regions.

The indirect effects of increased periods of heat and drought are lower agricultural productivity and water scarcity. This worsens local food situations, and often leads to conflicts over resources and a destabilisation of local social systems.

### *Natural Disasters*

Extreme weather-related and geological events, such as tropical cyclones, floods, heavy rainfall, landslides, tornadoes, hail, and hurricanes, immediately lead to large numbers of injuries or

even death. Even worse is the regular and systematic destruction of local infrastructure, such as access to clean potable water, food, electricity, medical facilities and shelter. This increases the infection rate of water-, vector-, and food-borne diseases, while at the same time massively worsening access to medical care.

Natural disasters result not only in shortages of food and water, but in anxiety and other psychological symptoms (such as traumas). These health consequences often go unaddressed in the context of acute disaster relief. However, the appropriate treatment of such follow-on diseases can be decisive for a population's long-term resilience.

### *Sea-Level Rise*

A typical slow-onset phenomenon is the rise in sea levels, which is already fatal to densely populated coastal regions and island states, especially in Asia and the Pacific. The coastal infrastructure can be retained only with the greatest effort, and living space for hundreds of millions of people will gradually disappear, for instance as salt water penetrates drinking water reservoirs and fertile arable land. This leads to multiple resource shortages, which can lead to malnutrition, diseases (such as arsenic poisoning), and drinking water shortages.

### *Air Pollution*

The accumulation of greenhouse gases, especially nitric oxides, in the lower and middle atmosphere reduces air quality, especially in heavily populated regions. The increased levels of allergens and pathogens in the air, and the pollution by industrial and automobile exhaust gases have a significant impact on human health in the surrounding area. The *accumulation* of such pollutants increases the frequency of respiratory complaints and allergies. Furthermore, warm temperatures also lead to the formation of gaseous ozone at ground-level. In turn, an increased concentration of ozone in the air can significantly impair human health.





Extreme weather conditions: Especially occurring during long-lasting heat waves and drought, the rising transmission rate of water- or food-borne diseases is particularly feared. [Source: © Ahmad Masood, Reuters.](#)

In 2018, the World Health Organization (WHO) forecast 250,000 additional *direct* deaths per year due to climate change, for the period between 2030 and 2050, as a result of these stress syndromes. Of these, 38,000 will be due to the elderly succumbing to heat; 48,000 due to diarrhoea; 60,000 from malaria; and 95,000 will result from child malnutrition.<sup>2</sup> If *indirect* consequences are considered, the numbers may well be much higher.

## Consequences

### *Adaptation and Resilience of the Public Health Systems*

Against the backdrop of this stress syndrome, health systems all over the world are facing the task of better adapting to the emerging risks to human health. This is an important part of the broad field of climate policy known as

“adaptation”. Organisational and financial structures of government and private health systems must be restructured to increase their *resilience* in the face of a foreseeable increase in strain. However, this challenge cannot be the responsibility of the health system alone. Urban planning processes, good governance, or the reorganisation of global value-added chains often play an equally important role.

Development policy to date has focussed primarily on establishing public health infrastructures. In the meantime, however, it has been recognised that, instead of merely tackling the symptoms, it is the underlying factors (stressors) leading to higher *health vulnerability* of societies which must be combatted. This also applies, for instance, to the causes and effects of climate change. This *additional stressor* generally affects health systems which are already today performing their duties inadequately, and

sometimes incapable of doing so at all. This occurs in many places, and for a variety of reasons: insufficient linkages of various steps in medical care (*disruption*), insufficient general medical education, inadequate social support systems, or a lack of gender equality. Effective prevention and treatment require a great deal of knowledge of specific local conditions, and must be considered in the context of further development policy measures.

Rapid urbanisation worldwide is a decisive factor here. The consequences of high settlement density in urban areas, especially in developing countries, is already exacerbating a number of negative health policy effects that will only worsen with climate change. This starts with the emergence of heat islands caused by faulty, energy-inefficient construction methods and urban planning. It continues with the location of the settlements themselves, which are often along rivers or coastal areas and are thus affected by climate change phenomena such as flooding and rising sea levels. And it ends with the installation of high-performance potable water and sewage systems, as well as communication systems, which are crucial to the prevention and control of epidemics.

### **Strengthening functional government structures is decisive in order to appropriately respond to the health consequences of climate change.**

#### *Climate-Related Migration*

Weak or lacking statehood is one of the most important factors in insufficient health care provision all over the world. Strengthening functional government structures is decisive in order to appropriately respond to the health consequences of climate change. Unfortunately, precisely the latter is increasing the fragility of

states and societies. Shortages of food, water, and other natural resources are already laying the foundations for domestic and cross-border conflict. If already scarce resources are further reduced or completely destroyed by extreme weather or natural disasters, regional and global migration will intensify, which in turn will endanger the stability of the receiving societies. International regulations for supporting climate-related migrants must therefore become a priority. This would have immediate positive effects on the state of health (both physical and psychosocial) of those affected, and on the functionality of local health systems.

#### **Approaches to Climate-Resilient Health Policy**

##### *Global Approaches*

As mentioned above, mitigation and adaptation strategies for climate change ought ideally to go hand-in-hand, and this is also true of the health sector. Nevertheless, the focus of policy and international health research today tends to be more on *adaptation*. The reasons for this are the shorter time horizons, insufficient knowledge of the complex causal relationships, and inadequate international coordination, which frequently results in ultimately inefficient local/national measures.

In 2015, the WHO introduced its first comprehensive plan for combatting climate change and its associated health risks.<sup>3</sup> The WHO's focus is on supporting member states as they tackle health risks arising from climate change so that resilience, capacities, and competence of local health systems can be enhanced and expanded locally to withstand these new pressures. The WHO defines *four fields of action* to raise global public awareness and promote more effective measures:

## 1. Building Partnerships

Responsibilities in the area of public health are already fragmented at the international level. Therefore, a platform for improved coordination amongst the various United Nations bodies is to be created in order to enhance synergy effects, and give health a higher priority in international climate diplomacy as well.

## 2. Raising Awareness

Despite the existential significance of the foreseeable effects of climate change, many countries lack a systematic and preventative discourse on the matter. Global and national institutions should invest more heavily in educating the public, as well as political, administrative, and economic decision-makers.

## 3. Enhancing Scientific Research

As mentioned above, the connections between the manifold phenomena of climate change and their direct and indirect effects on Global Health are still often unclear. The WHO thus recommends coordinated development of a global agenda and systematic monitoring of changes. Nevertheless, countries are also encouraged to each develop locally appropriate adaptation strategies.

## 4. Supporting the Ability of Health Care Systems to Respond to Climate Change

The core and priority of national health policies should be to enhance the capacities of local health systems by means of training and continuing education, technical advice, provision of technical and financial support, and the development of best-practice processes. Voluntary reporting on local challenges and progress by individual countries could be included in these efforts.

## *European Cooperation*

The first European Conference on Environment and Health was initiated by the WHO as early as 1989. It stipulated that each member state of the European Union must draw up a national action plan for environment and health. Germany's is being represented by the "Aktionsprogramm Umwelt und Gesundheit" (Action Programme for Environment and Health), or APUG for short. It is a collaborative effort among ministries and federal authorities that promotes research and education on environmental, health, and consumer protection with a particular focus on children and young people. The specific fields of action range from improving communication of health risks to Europe-wide action approaches. The focus is also on promoting an environmentally, climate-, and health-conscious lifestyle among the local population.

## *The Situation in Germany*

Against this backdrop, what is the situation in the Federal Republic of Germany? As early as 2008, the Robert-Koch-Institute (RKI) identified heat waves, floods, and increased incidence of allergens and vector-borne diseases as especially dangerous effects of climate change on health in Germany. These elements must also be considered in the context of demographic changes and with regard to the country's role as a central hub of international economic exchange. Further global interdependence, but also an increasingly ageing population represent specific factors which may amplify climate-related impacts on the health system.

Against this backdrop, the RKI cooperates closely with the German Environment Agency on preventative and acute measures to combat health risks arising from climate change in Germany. The focus is on clarifying the linkages between health and climate change, as well as on warnings and concrete information about preventative measures. Within the framework of a national action plan for Germany, the two institutions have identified the following fields of action:<sup>4</sup>



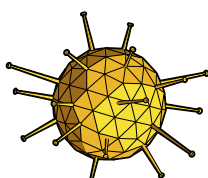
Raising awareness: Despite the existential meaning, many countries are lacking a systematic and preventative discourse on the effects of foreseeable climate changes. [Source: © Barry Malone, Reuters.](#)

### 1. Establishing a Health and Environment Monitoring System

The goal is to combine health and environmental monitoring in a single uniform system. This is especially relevant for the increased incidence of vector-borne pathogens and the increase in plant allergens, such as those from invasive plants and altered growth cycles.

### 2. Prevention and Risk Communication

As the effects of the heat waves in Europe have shown, with thousands of deaths in recent years, there is a great need for improved coordination of meteorological and climatological insights, and for their translation into concrete public health measures. The targeted addressing of specifically endangered groups, such as children and the elderly, is particularly important.







vary from region to region. Constant evaluation of existing measures is important for maintaining optimum conditions.

#### 4. Education on Climate-Related Health Risks

Insufficient awareness of the effects of climate change on human health is largely responsible for society's greater vulnerability. For this reason, there must be comprehensive education on these interrelationships in order to strengthen the resilience and competence of the population and of the health systems.

*-translated from German-*

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#### 3. Health Care

To ensure health care provision during and after extreme weather, and with regard to diseases linked to climate change, existing health care services must be adapted to local conditions. In this context, it is important to remember that climate change in Germany will have very different regional effects. For this reason, the requirements and adaptations of the health care systems will have to

- 1 Cf. Hefe, Peter/Vogel, Johannes/Lee, Eric 2016: At the Limits of Endurance – Climate Change and Resource Conflicts as Challenges to the Asia-Pacific Region, International Reports 2/2016, in: <https://bit.ly/2WnU3CU> [4 Jun 2019].
- 2 Cf. WHO 2018: Climate change and health, 1 Feb 2018, in: <https://bit.ly/2SXgflM> [22 May 2019].
- 3 Cf. WHO 2015: WHO Workplan on Climate Change and Health: Aims and Objectives: 2014–2019, Feb 2015, in: <https://bit.ly/2HwxYcA> [22 May 2019].
- 4 Cf. German Environment Agency / Robert Koch Institute 2013: Klimawandel und Gesundheit: Allgemeiner Rahmen zu Handlungsempfehlungen für Behörden und weitere Akteure in Deutschland, Mar 2013.



[Global Health](#)

# The Forgotten Crisis

Health Policy in South Africa and Dealing with HIV

Michaela Braun

HIV is one of the most devastating pandemics of our time. South Africa – the country with one fifth of the world’s HIV cases – has made some progress. However, that could change, if not as many HIV-positive South Africans as possible are taking antiretroviral medication regularly or if risky behaviour increases and awareness of the problem decreases. First signs for this can be found right now already.

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Worldwide, there are 36.9 million people with the Human Immunodeficiency Virus (HIV), and 35.4 million have died of illnesses related to HIV and AIDS.<sup>1</sup> This poses a great challenge to global development policy. HIV/AIDS not only has disastrous consequences for sufferers and affected communities, but also threatens the country’s security, development, and political and economic stability.<sup>2</sup> HIV damages the body’s own defences by destroying immune cells. If left untreated, HIV becomes Acquired Immunodeficiency Syndrome (AIDS): The body loses its ability to fight off invading bacteria (such as tuberculosis pathogens), fungi, or viruses. The virus is transmitted via various bodily fluids. Unprotected sexual intercourse and blood-to-blood contact (such as infected needles used for drug injections) can transmit the disease, and it may be passed on from mother to child (pregnancy, birth, breastfeeding). HIV is incurable, but it has been treatable since the spread of antiretroviral medications (ARVs). These medications reduce the concentration of the virus in the blood as well as the risk of an HIV infection developing into AIDS. ARVs greatly extend the life expectancy of HIV-positive patients, but may have severe side effects and must be taken for the rest of the patient’s life.<sup>3</sup>

The first cases of HIV/AIDS were reported in the early 1980s in the US, Europe and in African countries. By the mid-1980s, the disease had spread to all five continents, whereby eastern and southern Africa had become the epicentre by the late 1990s. Targeted education campaigns and early distribution of condoms

and antiretroviral medications among the population achieved a drop in the number of AIDS deaths and new infections in some emerging countries such as Botswana, Namibia, and Brazil between the mid-1990s and the mid-2000s.<sup>4</sup> In the 2016 Sustainable Development Goals, the international community set the goal of completely containing the spread of the pandemic by 2030.<sup>5</sup> This is an ambitious goal because the prevention and treatment of HIV remains a challenge for nations worldwide. The greatest burden is borne by sub-Saharan Africa, where 25.7 million people are HIV-positive.<sup>6</sup> In South Africa alone, which has the highest HIV rate, 20.6 per cent of people between 15 and 49 have contracted HIV. A total of 7.9 million people in South Africa are infected.<sup>7</sup> Around one third of them still have no access to antiretroviral medications, and the number of new infections each year is around 275,000. Each year, between 89,000 and 110,000 people in South Africa die of secondary diseases resulting from HIV and AIDS – secondary tuberculosis (TB) is one of the leading causes of death.<sup>8</sup>

South Africa is among the countries with the highest level of development and per-capita income in Africa and has one of the most advanced health care systems on the continent. So why are infectious diseases, HIV and TB, so widespread there of all places? The article addresses this question by first tracing how HIV spread in South Africa in the past and identifying several factors that played a role. It then turns to the current situation and identifies factors that continue to impede sustainable, comprehensive containment of HIV in South Africa.

Finally, it attempts to provide an outlook on the opportunities and risks associated with combatting HIV/AIDS in South Africa and draws lessons for global efforts at containing HIV.

## **Handling HIV/AIDS in South Africa in the Past**

### *The Beginnings of the Epidemic*

At the beginning of the HIV/AIDS crisis in the 1980s, South Africa was atypical: Although it recorded its first cases of HIV in 1982 and the height of the epidemic reached the country later than in neighbouring countries, the apartheid government, and later the first democratically elected African National Congress (ANC) government after the 1994 elections, took no effective preventative measures until the mid-2000s. This enabled the disease to spread unimpeded.<sup>9</sup> While only 0.73 per cent of the population was infected with HIV in 1990, the rate had risen to 7.57 per cent by 1994.<sup>10</sup> In 2005, the rate was 10.2 per cent and hence affected 4.78 million people.<sup>11</sup>

Several reasons for the early spread of HIV can be attributed to South Africa's difficult initial conditions caused by its history, as shaped by the racially motivated policies of the apartheid system – policies which discriminated against non-white population groups, especially as regards issues pertaining to education and health. South Africa was (and is) also strongly influenced by labour migration.<sup>12</sup> These factors made South Africa especially susceptible to the spread of an infectious disease like HIV. Given that the spread of the epidemic advanced at the same time as the democratic transformation, the South Africa government was fighting a war on two fronts. The first democratically elected government under Nelson Mandela was unable to face the challenge of implementing regulations that might have prevented the outbreak of the epidemic. This was partly because it was dealing with the urgent task of establishing a new, politically stable, non-racist society. The government therefore focused on radical changes to the unjust apartheid system in favour

of democracy, which had to be combined with comprehensive administrative and systemic structural changes.

**Until as late as 2002, South African politicians denied the link between HIV and AIDS. There was no targeted combatting of the virus.**

### *Government Failures in HIV Policy Under Thabo Mbeki*

When the second president after the democratic transition, Thabo Mbeki, took office, the HIV epidemic reached alarming levels owing to a disastrously misguided health policy. Mbeki and his health minister denied that AIDS was caused by HIV and, until 2002, refused to make antiretroviral medications available through the public health sector or to accept international aid funds for that purpose. During this period, there were virtually no scientifically substantiated measures supported by the government for prevention and education in the fight against HIV. The treatments recommended by the government were beetroot, vitamins, and traditional medicine.<sup>13</sup> As a result, between 2000 and 2005, 35,000 newborns were infected by their HIV-positive mothers, 330,000 people died from the consequences of AIDS, millions of children became orphans,<sup>14</sup> and the number of new HIV infections each year rose to 550,000.<sup>15</sup> The high rates of infection and death mean that the epidemic still has a negative impact not only on the individual lives of millions of South Africans, but also on all areas of society. The large number of patients overstrain an already fragile health sector, and the economy has suffered greatly from a shortage of qualified workers.<sup>16</sup>



HIV stigma: Civil society organisations call for a free access to medicine and launch awareness campaigns to combat prejudice. Source: © Finbarr O'Reilly, Reuters.

## Initial Successes

The revolution in HIV policy was primarily the result of civil society actors putting pressure on the government. No later than 1998 people knew that giving antiretroviral medications to HIV patients greatly reduced the danger of infection during birth and the breastfeeding of newborns, increased the life expectancy of those infected, and reduced the risk of infection from sexual intercourse. Even though this in itself theoretically provided treatment methods, medications were accessible only via private purchase, and thus unaffordable for the majority of the South African population. Civil society organisations such as the Treatment Action Campaign (TAC) called for free-of-charge access to ARVs via the public health sector, mobilised the public, took legal action against pharmaceutical companies, and obtained a price drop and access to generic ARVs. A lawsuit against the South African government in the Constitutional Court succeeded in making ARVs free-of-charge as of 2002 via the government health sector for especially severe cases, at least at selected locations.<sup>17</sup> Other players who contributed to changing the ANC government's position were the South African media, which denounced government policy, and private companies such as Anglo American, BMW, and Volkswagen, as well as ESKOM, South Africa's public electricity utility, which provided their workers with HIV programmes and antiretroviral medications.<sup>18</sup>

With Mbeki's resignation in 2007, and especially since the first term of the former Minister of Health, Aaron Motsoaledi,<sup>19</sup> South Africa has achieved HIV policy successes since 2009. Today, the country has the world's largest ARV treatment programme that is financed by a public health system. The programme is designed to provide therapy for all those infected with HIV immediately after a positive test result. The government aligns prevention and treatment measures with national five-year plans developed by the South African National AIDS Council (SANAC). The latter consists of representatives from government, the scientific

community, NGOs, unions, churches, and the private sector. Over the past ten years, funds provided by the state for HIV programmes have tripled,<sup>20</sup> amounting to a total of 22.1 billion rand in 2016/2017 (about 1.38 billion euros).<sup>21</sup> Yet, these efforts do not suffice when it comes to meeting the complex challenges of the HIV epidemic. To date, there have been no effective strategies for implementing the programme. Systemic political errors, corruption, and inefficient use of funds stymie complete containment and sustainable behavioural changes among the population.

**Despite falling rates of new infections, it is likely that South Africa will only achieve the first of the UNAIDS “90-90-90 targets” by 2020.**

## Current Challenges

South Africa still struggles to reach all HIV-positive individuals and provide them with long-term treatment. Since 2004, the number of HIV- and AIDS-related deaths has fallen by more than half and the number of annual new infections by one third.<sup>22</sup> Nevertheless, South Africa is likely to achieve only the first of the UNAIDS “90-90-90 targets” by 2020.<sup>23</sup> Currently, about 4.4 million people are receiving ARV therapy.<sup>24</sup> However, this only corresponds to some 56 per cent of HIV-positive people in the country. The virus has been suppressed for only about 43 per cent of HIV-positive people.<sup>25</sup> This means that the danger still looms large: The number of people infected with HIV is steadily increasing, and this trend can be traced back to the extended life expectancy provided by ARVs. The risk that these people infect others is contained only if they consistently remain in treatment. However, the treatments of both TB and HIV require a great deal of individual responsibility and discipline on the part of the patient. Many patients fail to demonstrate this. Following an HIV



diagnosis, they do not return for lifelong therapy or fail to take their medication regularly. In turn, TB cases often remain undetected because diagnosis is difficult, and the disease requires treatment lasting from six to 24 months.<sup>26</sup>

People in South Africa still continue to test HIV positive, amounting to 750 a day, and the number of tuberculosis (TB) deaths remains high.<sup>27</sup> The HIV infection rate in certain population groups is especially worrisome: One third of new infections are women between the ages of 15 and 24. Other groups with high rates of HIV include sex workers and non-heterosexuals. Migrants and illegal immigrants, children (especially orphans), and people in informal settlements are considered particularly vulnerable.<sup>28</sup> But what are the reasons for the new infections and gaps in treatment in South Africa?

**For several years, the country has seemed to be falling into “HIV fatigue”. The media are spreading the message that the danger is almost over.**

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### **Factors Sustaining the HIV Epidemic in South Africa**

#### *Awareness of the Problem is Fading in the Media and Society*

Serious gaps in knowledge about AIDS and the measures taken for protecting oneself against it continue to persist in South Africa. Even among those who are thought to be informed on these matters, perceptions of personal risk seem to have declined. Risky sexual behaviour is becoming increasingly common and is confirmed by the prevalence of unprotected sexual intercourse and the number of teen pregnancies.<sup>29</sup> A sort of “HIV fatigue” appears to have crept in, which has been reflected in changes to media reporting ever since the government gave in to the pressure exerted from civil society groups. Reports

now primarily focus on the successes achieved in containing HIV and the side effects of ARVs, and less on the continued grave danger the epidemic presents, which in turn would further raise awareness among the population.<sup>30</sup>

#### *Social Forces Serve to Drive the Spread of HIV*

Another challenge in the fight against HIV is that the problem is not merely a medical one; socio-economic and cultural factors must be taken into consideration, too. Effecting a change in behaviour is therefore proving to be difficult. The spread of HIV varies greatly depending on age, gender, place of residence, socioeconomic status, level of education, and personal convictions.<sup>31</sup> Studies show that there is a connection between the spread of the epidemic and socio-economic factors such as poverty and inequality. South Africa has one of the highest levels of inequality worldwide. Forty five per cent of the population live on two dollars per day or less.<sup>32</sup> The effects of this inequality manifest themselves above all in the area of health. Hence, poor and black population groups have especially high rates of infectious diseases such as TB and HIV. The HIV infection rate is highest among the black population (16.6 per cent compared to 5.3 per cent for Coloureds, 0.8 per cent for Indians / Asians, and 1.1 per cent for whites).<sup>33</sup>

Further structural factors and social norms facilitate the spread of HIV, especially in urban townships and rural areas where structures are weak. These factors include abuse of alcohol and drugs, high unemployment, defective family structures, patriarchal role models, and violence. South Africa belongs to the countries with the highest rates of rapes and sexual violence against women. Sexually risky behaviours such as promiscuity and polygamy are also widespread, with former President Jacob Zuma considered to have been an embodiment of this.<sup>34</sup> Sexual relationships involving a great age difference, asymmetrical power relationships, and financial dependency are also common. Thus, young girls are often infected by older men who do not want to use condoms, but upon whose financial support they rely.<sup>35</sup>



### *Myths about HIV and AIDS Cause Confusion and Impede Education*

Like other African countries, South Africa is partially conservative and religious, and belief in traditional medicine is common in remote areas. Numerous myths surround HIV treatment and prevention. Some misperceptions are that sex with virgins can cure AIDS, certain blood types are immune to the virus, and showering after sex can provide protection from HIV (a claim made by former South African President Zuma himself).<sup>36</sup> Those infected continue to be stigmatised. At the same time, some South Africans remain sceptical of antiretroviral medications.<sup>37</sup> The disastrous, contradictory HIV propaganda by government representatives in the past contributed greatly to distrust and confusion and impedes the success of education measures to this day.

### *The State Health System is Overstrained*

The HIV and TB programmes drawn up in the national plan are coordinated by the health agencies in the provinces and predominantly implemented in government facilities at the municipal level and in community centres by non-governmental organisations. They are available to the population free-of-charge. The responsible health personnel largely consist of nurses and community assistants.<sup>38</sup> This means that public facilities provide the backbone for infectious disease containment. But these facilities, like the entire health sector, have for years been the subject of criticism and suffer greatly from the lack of qualified personnel, medications, and technical equipment.<sup>39</sup> Waiting times for patients can be long, and ARVs and contraceptives are often out of stock for months. Both the quality and number of facilities and health personnel varies greatly from one geographical location to another.<sup>40</sup> Studies in South Africa show that some patients are insufficiently educated and sometimes feel that they are mistreated by health personnel.<sup>41</sup> The weaknesses of the state health system impair the success of the programmes aimed at containing infectious diseases as they result in HIV-positive or TB patients dropping out of treatment.<sup>42</sup>

### *Poor Governance and Inadequate Implementation of Planned Measures Impair HIV Programmes*

One of the reasons why the HIV epidemic in South Africa has reached this level – and there continue to be gaps in treatment along with a high rate of new infections – is the poor governance by the ANC. While the party has – after consistent AIDS denialism of some government representatives and HIV policy failures – in cooperation with civil society developed good measures and laws for combatting HIV, these measures have not been efficiently implemented to date.<sup>43</sup> The government still fails to strengthen the public health system as the basis for effective HIV programme implementation through sufficient budgets, personnel, and infrastructure.<sup>44</sup>

One reason for this is poor budgeting and financial planning: The government earmarks 12.19 per cent of its budget for health,<sup>45</sup> and per capita expenses in the area of health are above WHO targets for emerging countries.<sup>46</sup> Nevertheless, the government health sector exhibits major shortcomings; there has so far been no effective reform, and the budget is not sufficient to employ enough qualified personnel or ensure adequate equipment. To achieve better results, the government ought to invest existing funds more efficiently. This brings us to a second factor that limits ANC government successes: The years under President Zuma in particular witnessed cases of corruption and political patronage within the governing party that reached record levels. Tax revenues earmarked for such items as HIV programmes were instead used for the personal gain of party leaders and allied businesses. This nepotism infiltrated the health sector as well: The public health system was systematically undermined and this, in turn, had a direct impact on the success of HIV and TB programmes.<sup>47</sup> Ongoing inadequate planning and coordination among national, provincial, and municipal governments and among ministries and agencies, along with inconsistent implementation of guidelines and procedures, contributed towards the failure to achieve the targets under

the national strategic plan.<sup>48</sup> Thus, systemic obstacles in the form of inefficiency, corruption, and mismanagement that are present in several areas of South African politics continue to hamper sustainable, significant developmental progress.

### Outlook for South Africa

The future of HIV containment in South Africa depends on good governance and clear action to counter corruption. In this area, health policy is a good proxy for the generally deficient ANC governance. It is not enough for the government to ensure that funds for HIV programmes are used for the originally intended purpose. Coordination among individual government and administration levels and consistent implementation of monitoring and theoretically good policy measures are also necessary. However, capacity for such improvement is insufficient, especially at the province and district level. SANAC, the multi-sector national institution tasked with designing HIV programmes, could cooperate efficiently if structures in the provinces were improved.<sup>49</sup> International development cooperation could contribute to enhancing local governments and administration, planning, and budgeting. Active involvement by civil society and the media will remain necessary to hold government officials to account for mismanagement and to ensure that HIV remains high on the agenda. Opportunities are afforded by measures such as promoting greater exchange between the public and private health sectors and reforming the health system.<sup>50</sup> Challenges will include continuing fast-paced urbanisation and the many migrants and illegal immigrants, who can participate free-of-charge in South African treatment programmes, and hence

HIV myths: The belief in traditional medicine in South Africa is widespread. Myths continue to surround HIV treatment and prevention, for instance that sex with virgins could cure AIDS. Source: © Rogan Ward, Reuters.





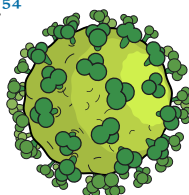
place an additional strain on health facilities, particularly in metropolitan areas.<sup>51</sup> To further reduce dependency on international aid funding in the future, South Africa will need to find other ways of increasingly funding its programmes from domestic sources and spending the money more efficiently.

### **Lessons from South Africa for the Global Fight Against HIV**

To halt the spread of HIV, as many HIV-positive people as possible must receive a diagnosis and undergo permanent treatment. There must also be comprehensive education on the issue. The South African example can provide lessons for combatting HIV that may be useful in the global development policy context.

#### *Containment of HIV Is a Responsibility that all of Society Must Bear*

The delayed establishment of medical treatment for HIV sufferers is one of the main failures of South African AIDS policy. However, especially in the last ten years, South Africa has initiated promising projects. Among them are participatory development of national strategic plans by the government and a panel of experts based on insights from international scientific research. The approach of engaging civil organisations and HIV sufferers as assistants and involving local communities directly in the implementation of HIV programmes also has potential. It should result in contact with previously unreached individuals, and follow-up aims to ensure continued treatment and ultimately to eliminate taboos.<sup>52</sup> To achieve permanent gains, such plans need to be coupled with concrete implementation strategies and assignment of responsibility at all levels of government and agencies.<sup>53</sup> There must be sufficient financing for all government facilities to be supplied with antiretroviral medications, means of prevention, technical equipment, and trained personnel, as well as sufficient capacity to document, follow up, and monitor HIV cases.<sup>54</sup>



#### *HIV Programmes Suited to the Target Group, Along with Supporting Measures, Promote Changed Behaviour*

Permanent containment and changed behaviour requires a combination of measures that address the socioeconomic context in which the disease spreads. Macroeconomic, health, and social policy strategies must target poverty, access to health care, and education about what constitutes a healthy lifestyle. They must also include interventions combatting violence, deconstructing patriarchal ideals of masculinity, and tackling discrimination against infected individuals. One important task for international efforts is to address those who have not yet been reached, along with populations and groups considered to be particularly vulnerable. It is also necessary to change behavioural patterns that make the spread of HIV in societies more likely.<sup>55</sup>

Prevention campaigns are most effective when they successfully communicate to these individuals how an infection with HIV will affect their own lives and make preventative measures such as male and female condoms and Pre-Exposure Prophylaxis (PreP) and microbicides (such as preventative antiretroviral vaginal gel), accessible free-of-charge in as many areas as possible. Voluntary, medically correct male circumcisions, which significantly reduce the risk of HIV transmission during sexual intercourse for both men and women, should be offered free-of-charge by the government health system. Every person must be able to obtain information about HIV at little cost or effort. Programmes must be appropriately directed to target groups, and education needs to use suitable communication channels.

Test, advice, and treatment offers will reach more people if they are integrated into everyday locations; these include the workplace, local health centres, and recreation facilities, as well as automated medication dispensing, telephone, online-based advice centres and apps. The linking of various programmes (HIV programme and mother-child preventative care as part of standard preventative examinations, co-diagnoses of

TB and HIV, sex education and socialisation with respect to gender roles at schools), may lead to a higher usage rate and more efficient resource deployment.<sup>56</sup>

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- 2 Cf. Braun, Daniela 2018: Invisible Enemies. Why Viruses and Bacteria Are a Security Policy Issue, in: *International Reports 2/2018*, pp.62 f., in: <https://bit.ly/2HTFOx8> [3 Jun 2019].
- 3 Cf. Böxkes, Peter 2017: HIV / AIDS in Südafrika, pp.18–26, in: <http://bit.ly/2UNeu7M> [18 Feb 2019].
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- 5 Cf. United Nations: Sustainable Development Goals Knowledge Platform, in: <http://bit.ly/2FoNvtV> [18 Feb 2019].
- 6 Cf. UNAIDS 2018, n.1.
- 7 Cf. Human Sciences Research Council (HSRC) 2018: The Fifth South African National HIV Prevalence, Incidence, Behaviour and Communication Survey, 2017: HIV Impact Assessment Summary, Jul 2017, in: <http://bit.ly/2Hx9EZ2> [18 Feb 2019]. The HIV statistics deviate slightly from source to source. Unless otherwise indicated, the reference is to UNAIDS and HSRC. Other South African sources can be found in Stats SA (in: <http://bit.ly/2HILJFo>) and in the Themisa Model (in: <http://bit.ly/2CuLWZl>) [18 Feb 2019].
- 8 Cf. Spotlight 2018: The Numbers: HIV and TB in South Africa, 4 Jul 2018, in: <http://bit.ly/2WeaT2W> [18 Feb 2019].
- 9 Cf. Shisana, Olive et al. 2014: South Africa's Response to the HIV and AIDS Epidemics, in: *HSRC 2014: State of the Nation – South Africa 1994–2014*, p. 347.
- 10 Cf. Grundlingh, Louis 2009: Challenges and Obstacles in early HIV and AIDS Education in South Africa 1989–1994, in: *Historia 54: 1*, pp. 239–241.
- 11 Cf. South African Institute of Race Relations 2018: *South Africa Survey 2019*, Johannesburg, p. 676.
- 12 On the one hand, people from such places as other African countries came to South Africa to do periodic work (in the mining industry, for instance). On the other, the apartheid structures made it necessary for non-white population groups to travel long distances to their places of work and, at times, live separated from their families.
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- 14 Cf. Delobelle, Peter 2013: The Health System in South Africa: Historical Perspectives and Current Challenges, in: Wolhuter, Charl (ed.): *South Africa in Focus*, Hauppauge, NY, p.160.
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- 16 Cf. Ostheimer, Andrea 2004: The impact of HIV/AIDS on the South African economy, KAS Country Report, Jun 2004, in: <http://bit.ly/2HMJAJ3> [7 Mar 2019].
- 17 Cf. Burchardt, Marian 2017: Demokratisierung, Transnationalisierung und Klientelismus, in: De la Fontaine, Dana et al. (eds.): *Das politische System Südafrikas*, Wiesbaden, pp. 19–24.
- 18 Cf. Wogart al. 2008, n. 4, p. 21f.
- 19 Motsoaledi was the South-African Minister of Health from 2009 to 2019. Since 29th May 2019, he has become the Minister of Home Affairs.
- 20 Cf. Blecher, Mark et al. 2016: HIV and AIDS Financing in South Africa: sustainability and fiscal space, in: Health Systems Trust: *The State of Health in South Africa 2016*, p. 214, in: <http://bit.ly/2TR39Gz> [18 Feb 2019].
- 21 The total cost of the programmes designed in the strategic plan is 207 billion rand (about 12.7 billion euros) by 2021. Cf. South African National AIDS Council (SANAC) 2017: *South Africa's National Strategic Plan for HIV, TB and STIs 2017–2022*, p. 38, in: <http://bit.ly/2FoqNSt> [18 Feb 2019].
- 22 Cf. Spotlight 2018, n. 8.
- 23 These targets are: Diagnose 90 per cent of all HIV-positive persons, provide antiretroviral therapy for 90 per cent of those diagnosed, achieve viral suppression for 90 per cent of those treated. Cf. Low, Marcus 2018: *Is South Africa on track to meet NSP targets?*, Daily Maverick, 30 Nov 2018, in: <http://bit.ly/2WcP5nY> [18 Feb 2019].
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- 25 The calculation is based on 7.9 million cases of HIV. Cf. UNAIDS: *Country factsheets. South Africa/2017, Data*, in: <http://bit.ly/2Y8quTq> [18 Feb 2019].
- 26 Cf. Furlong, Ashleigh 2018: *HIV treatment programme doing well but long way to go*, GroundUp, 26 Jun 2018, in: <http://bit.ly/2UHmEOF> [18 Feb 2019].
- 27 The calculation is based on 275,000 new infections annually, cf. Spotlight 2018, n. 8.
- 28 Cf. SANAC 2017, n. 20, p. 23.
- 29 Cf. Hopkins, Kathryn et al. 2018: *Will the current National Strategic Plan enable South Africa to end AIDS, Tuberculosis and Sexually Transmitted Infections by 2022?*, in: *Southern African Journal of HIV Medicine* 19: 1, 4 Oct 2018, in: <http://bit.ly/2UKor5T> [18 Feb 2019].
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- 31 Cf. UNAIDS 2015: *MDG 6: 15 years, 15 Lessons of Hope from the AIDS Response*, p. 168, in: <http://bit.ly/2TLP268> [18 Feb 2019].
- 32 Cf. Mayosi, Bongani et al. 2014: *Health and Health Care in South Africa*, in: *The New England Journal of Medicine* 371, pp. 1344–1353, 2 Oct 2014, in: <http://bit.ly/2FhK079> [18 Feb 2019].
- 33 Cf. HSRC 2018, n. 7.
- 34 Cf. Venter, Francois et al. 2011: *Health in Africa*, in: Mbeki, Moeletsi (ed.): *Advocates for Change*, Johannesburg, pp. 148–152.
- 35 Cf. Shisana 2014, n. 9, pp. 350, 355.
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- 37 Cf. Furlong 2018, n. 27.
- 38 Cf. SANAC 2017, n. 21.
- 39 Cf. Amnesty International: *South Africa 2017/2018*, in: <http://bit.ly/2JocqSd> [18 Feb 2019].
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- 43 Cf. Chibango, Conrad 2013: *South Africa's HIV and AIDS Policy and Legislation*, in: *Greener Journal of Medical Sciences* 3: 6, p. 248.
- 44 Cf. Coovadia, Hoosen et al. 2009: *The Health and Health System of South Africa: Historical Roots of Current Public Health Challenges*, in: *The Lancet* 374: 9692, pp. 830ff.
- 45 Cf. National Treasury Republic of South Africa 2019: *Budget Review 2019*, p. 8, 20 Feb 2019, in: <http://bit.ly/2CsTGLn> [17 Mar 2019].
- 46 Cf. Bernstein 2011, n. 41, pp. 7–17.
- 47 Cf. Yawa, Anela 2018: *Time to make AIDS political again*, Spotlight, 24 Jul 2018, in: <http://bit.ly/2Jq15B4> [18 Feb 2019].
- 48 Cf. Scrubb, Victoria 2011: *Political Systems and Health Inequity*, in: *The Journal of Global Health*, 1 Apr 2011, in: <http://bit.ly/2uf3bJL> [18 Feb 2019].
- 49 Cf. UNAIDS 2015, n. 32, p. 168.
- 50 There are striking differences in quality between the very well-equipped private health sector, which is heavily used by the minority of the population who can afford private health insurance, and the extremely weak, tax-funded governmental health sector. Since 2011, there have been plans for 'national health insurance' and a reform of the public health system. There has so far been no comprehensive implementation.
- 51 Cf. Mayosi et al. 2014, n. 33, p. 1344.
- 52 Cf. Zewdie, Debrework 2003: *Summary of Lessons Learned from Implementation of the Multi-Country HIV/AIDS Program (MAP)*, 1 Jul 2003, The World Bank, in: <http://bit.ly/2TjCjm3> [18 Feb 2019].
- 53 Cf. Davis, Rebecca 2017: *HIV & TB: New Government Plan raises Concerns over Practicalities and Politics*, Daily Maverick, 11 Apr 2017, in: <http://bit.ly/2Ffc5vS> [18 Feb 2019].

- 54 Cf. Gray, Glenda 2016: HIV, AIDS, and 90-90-90, The Conversation, 12 Jul 2016, in: <http://bit.ly/2ui5v2M> [18 Feb 2019].
- 55 Cf. Scott, Vera et al. 2017: Addressing Social Determinants of Health in South Africa, in: Health Systems Trust: The State of Health in South Africa 2017, pp.77-88, in: <http://bit.ly/2TlqOu5> [18 Feb 2019].
- 56 Cf. UNAIDS 2015, n. 32, p. 59.



[Global Health](#)

# Ebola in the Congo – A Home-Grown Crisis

Benno Mùchler



The scale of the current crisis in the Democratic Republic of the Congo (DR Congo) does not come close to that of the Ebola epidemic in West Africa. However, nine months after the outbreak, it is the second worst case in the history of the Ebola virus. Although there is a vaccine today, it has not been possible to bring the epidemic under control. The problem is the country's poor security situation. In only a few weeks (end of March to May 2019), the death toll rose from approximately 600 to more than 1,000. Placing faith in the Congo to solve its problems on its own is a dangerous game. International presence in the country strengthens the newly elected president.



“We’re at a pivotal moment in this outbreak, and none of the partners will rest until we put an end to this outbreak,” said World Health Organization (WHO) Director-General Tedros Adhanom at the beginning of March 2019 in DR Congo. The former Ethiopian Minister of Health and of Foreign Affairs looked stony-faced when he left a treatment centre in the city of Butembo in the eastern part of the country that had been the target of a rebel attack that very morning.<sup>1</sup> A trail of destruction. The aid facility destroyed. Only a few days earlier, the station had been attacked already.

“It breaks my heart to think of all the health workers injured and the police officer who died in today’s attack,” said the WHO Director-General in an official statement later that day. “But we have no choice except to continue serving the people here, who are among the most vulnerable in the world.”<sup>2</sup>

### **A Danger for the Great Lakes Region**

The Ebola crisis has been raging in DR Congo for more than nine months. Over 1,240 people have died until now of the virus. Although this is not the same level of severity as the West Africa epidemic, it is the second worst case since the virus was discovered in the 1970s. More than 11,000 people died in West Africa from 2014 to 2016, mostly in Liberia, Sierra Leone, and Guinea. Ebola became a global threat. The risk

of the virus reaching the Congo’s neighbouring states and the epidemic once again becoming a regional or even global threat continues to be prevalent.

Insufficient medical progress is not the reason why the Congo’s crisis has not been brought under control. In contrast to 2014, a vaccine now exists but the problem is the poor security situation: The Congo’s crisis is home-grown. The state is not in a position to ensure stability. More than 70 armed groups have free rein in the country.<sup>3</sup> The current crisis in the Congo, rather than depicting how the Ebola virus can be successfully contained today, reveals severe political negligence on the part of those governing Africa’s second-largest country. This not only presents the Western powers with a warning, but should also be an occasion to continue to vehemently press for political reforms.

### **Valuable Time Lost**

The Ebola crisis in the Congo started nine months ago. On 1 August 2018, the government of DR Congo announced the outbreak of the Ebola epidemic. This was not a new situation for the country as the virus had been discovered in 1976 in what was then Zaire.

In 2018 a person had died following a fever and severe bleeding in the province of North Kivu at the eastern edge of the country. Family

members then developed the same symptoms and died shortly afterwards. National health research tests revealed that, as it had been the case in West Africa in 2014, the lethal Ebola virus was to blame.

It is possible that this new Ebola epidemic broke out much earlier – as early as May 2018. However, a health worker strike due to unpaid salaries may have resulted in the outbreak not having

been reported at that time. Therefore, valuable time may have been lost. The virus spread unimpeded. By 3 August 2018, there were already 30 confirmed deaths in the country.

From North Kivu, the virus spread to the neighbouring province of Ituri. Both provinces are densely populated and border on South Sudan, Uganda, and Rwanda. There is vibrant trade in the region, and numerous internally displaced



No end in sight: For decades, large parts of the population of the Democratic Republic of the Congo have been suffering from violent conflicts between armed groups and the government. [Source: © Baz Ratner, Reuters.](#)

persons also impede a quick containment. In December 2018, the death toll already exceeded the 350 mark.

### Premature Optimism of WHO

In 2018 however, WHO and its partners seemed to be in an overall better position to contain the virus. In contrast to 2014, a vaccine now exists. It is produced by the company Merck and despite not having been officially approved, test results were so promising that it has been widely used in the Congo. More than 120,000 people have been vaccinated so far. In March 2019, WHO also reported that 80 per cent of the affected population are willing to allow family members who have died of Ebola to be buried safely. The population's resistance had been a core problem in fighting Ebola during the crisis in West Africa and is also a key issue in the Congo today.

Hence, at the WHO constitutional meeting in Geneva in January 2019, there was an increasing number of optimistic voices saying that the Congo epidemic might end within six months.<sup>4</sup> Merck, the vaccine manufacturer who had recently announced that it would send another 120,000 vaccine doses to Central Africa at the Davos World Economic Forum, reinforced this conviction.

WHO Director-General Tedros said in March 2019 that it was the aim to bring the crisis to an end in the following six months, even though he had only just witnessed the difficult security situation during his visit to the devastated centre.<sup>5</sup> The death toll had decreased, giving him cause to express this optimism. At that point, the number of deaths was around 580.

But only two weeks later, WHO's Africa Regional Director Matshidiso Moeti refrained from this position and acknowledged instead that the crisis could continue for another twelve months.<sup>6</sup> The death toll had risen to 640 in just a few days. The primary cause were the ongoing attacks by armed groups on health workers and their facilities in the eastern

provinces. It has even deteriorated since then. In only a few weeks, between the end of March and the beginning of May, the death toll rose from 600 to more than 1,000.

### Defenceless Citizens and Endangered Health Workers

Katwa, Beni, and Butembo – those are the names of the cities in which there have repeatedly been attacks on Ebola treatment centres. According to the national health ministry, 132 health teams have been attacked since the beginning of the outbreak and four health workers have died.<sup>7</sup> Time and again, the organisation Doctors Without Borders (Médecins Sans Frontières, MSF) has been forced to suspend its work in various locations. At the same time, local hostility towards health workers has risen, MSF reported.<sup>8</sup>

### The inability of the Congolese government to assert its monopoly on the use of force allows countless armed groups in the country to operate at will.

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Understanding the cause requires an in-depth look: The armed, often locally embedded groups perceive the foreign health workers as collaborating with the government they so loathe. All too often, the state has become rich at the expense of its people, and policemen and soldiers have repeatedly committed offences against the population. According to the United Nations (UN), national security forces were responsible for more than 50 per cent of human rights violations in DR Congo in 2018.

The attacks on Ebola treatment centres are thus not expressions of doubt about the existence of the fatal virus. They are politically motivated, aimed at either keeping the government out of the region or merely weakening it. To this end, pressure is applied to the population as well. In

the city of Butembo, one of the groups is said to have distributed flyers, threatening to inflict violence upon citizens if they cooperated with health workers.<sup>9</sup>

Why are armed groups able to operate at will in so many parts of the country? The reason is the state's inability to assert its monopoly on the use of force. After ratifying a new constitution following a transitional phase in 2006, all the country's de-militarisation programmes and security sector reforms ultimately failed due to insufficient political willingness on the part of those governing.<sup>10</sup>

In the Congo, private interests too often take precedence. There is no policy recognising an obligation towards the well-being of the people. The constellation of political parties is one indicator of this problem. Some 600 parties are currently registered. They lack ideology, internal structure, and democratic consensus-forming processes, and most of them exist solely to provide the chairman with a mandate so that he can support himself and his allies. Before the last election, a three per cent threshold for membership in the National Assembly was briefly discussed, but the deputies ultimately agreed to lower the threshold to one per cent instead.

### **The New President Is a Weak One**

Political reforms in any part of the country, which, despite its abundant natural resources, is among the poorest in the world, will require a strong president. Félix Tshisekedi was elected to that position on 30 December 2018. The election of the oppositional chairman of the UDPS (Union for Democracy and Social Progress)

party, which is also a member of the Socialist International, is highly disputed. There are many indications that the runner-up was actually the winner. It is said that the former President Joseph Kabila is somehow responsible



Helpers become targets: At times, personnel of the UN's peacekeeping mission in the Congo MONUSCO protect Ebola treatment centres and their patients that become targets of attacks by armed groups.

Source: © Goran Tomašević, Reuters.

for the result. Kabila initially wanted to change the constitution so that he could run for a third term. Yet, after realising that pressure from the international community and domestic civil society was too great, he distanced himself

from that idea and allegedly helped the opposition candidate Tshisekedi to power while at the same time assuring a large majority in the National Assembly and the Senate with his own coalition.



Tshisekedi is thus now indebted to Kabila who could run again in 2023. The international community accepted the result after initial hesitation. It values the incident as an opportunity to successively transform the country into a functioning democracy. Tshisekedi's election signalled the end of Kabila's 13-year term of office, during which the latter greatly repressed his people and allegedly established a system by which he and his family secured shares in around 80 domestic and foreign companies.<sup>11</sup>

In this complex situation, Tshisekedi, who is no friend of Kabila but agreed to the deal for the sake of power, can only move forward. For instance, he is attempting to use the extensive capabilities of the presidency to emancipate himself from Kabila and travelled throughout the country during his first 100 days in office. He appeared to listen to the people and donated life jackets after a shipwreck on Lake Kivu. He promised to ensure security in various cities and returned from a state visit to Washington, D.C. with the consent of the International Monetary Fund (IMF) to soon support DR Congo financially again under given conditions – something it had only recently refused to do under Kabila. Tshisekedi's proximity to citizens is different than Kabila's approach. Tshisekedi also gained favour with both the Congolese and the international community by releasing political prisoners and re-opening the EU Delegation to the Congo that had been closed under Kabila.

Furthermore, Tshisekedi also visited the areas affected by Ebola to assess the situation himself. While the epidemic only seems to be secondary for him, he is interested in a close cooperation with Western allies. America and Europe, which under no circumstances want to see Kabila return to power, support Tshisekedi's power. Thus, Tshisekedi is likely to have little interest in a quick withdrawal of MONUSCO<sup>12</sup> personnel.<sup>13</sup> They number over 10,000, making MONUSCO the largest UN peacekeeping mission in the world and the most important guarantor of security in the Congo. It is not surprising that MONUSCO opposed Kabila's power and was always a thorn in his side.

## A Dual Strategy for Solving the Ebola Crisis

MONUSCO has also provided health workers with patrolling security in the troubled region ever since the start of the Ebola outbreak.<sup>14</sup>

### A military solution currently seems like the only option to overcome the Ebola crisis.

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One Congolese National Assembly deputy who wishes to remain anonymous told the Konrad-Adenauer-Stiftung that the Ebola crisis can only be resolved when the East of the country is entirely pacified and health workers can thereby offer assistance unimpeded. This would require strong military intervention authorised by a UN Security Council resolution under Chapter VII of the United Nations Charter, however.

The Ebola death toll, which quickly rose to 1,000, shows how security in the region plays a crucial role in the successful elimination of Ebola. At the same time, militarising aid risks further increasing the resistance of local armed groups. MONUSCO has provided training to the Congolese police in the fight against Ebola, hence the organisation is seen as a government partner, too.<sup>15</sup> A second key is therefore the ongoing negotiations with local armed groups. According to members of the United Nations in Kinshasa, the intention is to convince the groups to cease attacks on Ebola treatment centres.

### On the DR Congo's Side

In Geneva, WHO Director-General Tedros pushes towards quick successes and has sent clearer signals over the past few weeks. A few days ago, at the start of the WHO annual meeting in Geneva, he called for all parties in the Congo to unite in the fight against Ebola: "We're fighting insecurity. We're fighting violence. We're fighting misinformation [...] and we're fighting the



politicisation of an outbreak.”<sup>16</sup> Insufficient security in the Congo was mentioned as a primary reason. At the same time, UN Secretary General Guterres appointed MONUSCO Deputy David Gressly the UN Emergency Ebola Response Coordinator in the Congo.<sup>17</sup>

In 2014, Tedros’s predecessor became the target of massive criticism when WHO acted too slowly in the West African Ebola crisis. Any new leadership therefore had a basic duty to improve WHO’s response. In his first address after his election in May 2017, Tedros said that he was “committed to making sure the world is prepared for the next epidemic”.<sup>18</sup> And it was. If there is one lesson from the current crisis, it is that containment can be only as successful as the political situation on the ground allows. The international community should thus harness this opportunity following the end of Kabila’s presidency and step up its support for the DR Congo’s reforms. This includes Germany. In the past few days, a diplomatic delegation of Belgium and France’s Foreign Minister Le Drian travelled successively to Kinshasa and assured President Tshisekedi amongst other things their support concerning the security sector reform.<sup>19</sup>

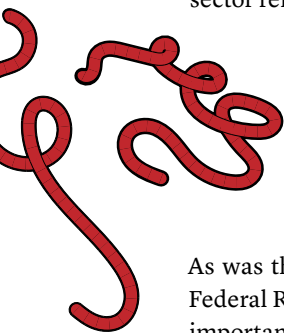
of the ministry’s partner countries (now 85), and DR Congo is among those that might go. Nobody wants a president who was not properly elected. Nevertheless, it is also true that Berlin remained in talks with Joseph Kabila in 2011, even though he had used massive voter fraud to retain power. Politicians should not repeat old mistakes. However, each case must be assessed on its own merits.

*This text was first published online end of May. In the meantime, the virus spread to neighbouring Uganda.*

*—translated from German—*

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As was the case between 2014 and 2016, the Federal Republic of Germany is one of the most important donors of emergency funds for combatting Ebola. At the WHO Health Assembly, Federal Minister of Health Jens Spahn (CDU) announced further immediate payments of ten million US dollars.<sup>20</sup> The German federal government has not adopted a position on Tshisekedi’s election to date. The German Federal Ministry for Economic Cooperation and Development (BMZ) suspended negotiations with DR Congo in 2017 when Kabila violated the constitution by extending his term of office. The BMZ is currently discussing reducing the number

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- 8 Cf. Médecins Sans Frontières 2019: Medical activities suspended after Ebola treatment centre attack, Statement, 28 Feb 2019, in: <https://bit.ly/2tNqV7n> [14 May 2019].
- 9 Cf. Isango, Eddy 2019: Ebola Outbreak Could Spiral Beyond DRC, WHO Warns, Voice of America, 10 May 2019, in: <https://voanews.com/a/4913176.html> [14 May 2019].
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- 12 Short for: *Mission de l'Organisation des Nations Unies pour la stabilisation en République démocratique du Congo* (The United Nations Organization Stabilization Mission in the Democratic Republic of the Congo).
- 13 Cf. Hansrod, Zeenat 2019: UN mission in DR Congo, MONUSCO, to downsize, Radio France Internationale, 25 Apr 2019, in: <http://rfi.my/3xUY.T> [14 May 2019].
- 14 Cf. ONU Info 2018: Lutte contre Ebola en RDC: la MONUSCO apporte un appui logistique et sécuritaire, 16 Oct 2018, in: <https://bit.ly/2VHuj4s> [14 May 2019].
- 15 Cf. Radio Okapi 2019: Nord-Kivu: la police de la MONUSCO forme 400 policiers congolais à Butembo, 12 Feb 2019, in: <https://bit.ly/2HoStGQ> [14 May 2019].
- 16 Cf. France 24 2019: DRC must unite in Ebola fight amid 'high' risk of spread: WHO chief, 20 May 2019, in: <http://f24.my/4x8a.T> [26 May 2019].
- 17 Cf. WHO 2019: United Nations strengthens Ebola response in Democratic Republic of the Congo, 23 May 2019, in: <https://bit.ly/2WmUuge> [26 May 2019].
- 18 Cf. WHO 2017: Director-General Dr Tedros takes the helm of WHO: address to WHO staff, 3 Jun 2017, in: <https://bit.ly/2HrErF> [14 May 2019].
- 19 Cf. Jeune Afrique 2019: RDC: Félix Tshisekedi annonce la reprise de la coopération militaire avec la Belgique, 15 May 2019, in: <https://bit.ly/2EDouue> [26 May 2019]; Radio France Internationale 2019: En RDC, Jean-Yves Le Drian salue une véritable "alternance", 21 May 2019, in: <http://rfi.my/43K9.T> [26 May 2019].
- 20 Cf. Federal Ministry of Health 2019: Deutschland erhöht Ebola-Soforthilfen um 10 Mio. Dollar, 21 May 2019, in: <https://bit.ly/2K71hEf> [26 May 2019].





[Global Health](#)

# Ulaanbaatar Is Suffocating in Smog

Air Pollution Causes Serious Health Problems in Mongolia

[Johann Fuhrmann](#)

Ulaanbaatar in Mongolia is not just the coldest capital city in the world. In 2016, this city of over a million inhabitants also overtook New Delhi and Beijing as the capital with the highest levels of air pollution. Politicians recognise the problem but seem largely powerless to act. The city's residents are becoming increasingly frustrated.

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### Toxic Air and Its Consequences

It has already been two years since Mongolia's Security Council sounded the alarm. The Council, consisting of the president, prime minister, and parliamentary speaker, declared the problem of air pollution in Ulaanbaatar a national emergency.<sup>1</sup> According to the World Health Organization (WHO), an estimated 3,300 people died in Mongolia due to air pollution in 2016 alone.<sup>2</sup> Despite the government having adopted a "National Programme for Reducing Air and Environmental Pollution" in 2017, the situation has not improved since. A measurement of air quality carried out in January last year showed that the maximum level of PM<sub>2.5</sub> recommended by the WHO was exceeded 133 times.<sup>3</sup> PM<sub>2.5</sub> refers to particulate matter consisting of particularly tiny particles that can therefore penetrate deep into the smallest air sacs of the lungs. This particulate matter is associated with serious health problems such as strokes, heart diseases, and respiratory diseases such as asthma.<sup>4</sup>

### Between Yurts and Skyscrapers

Ulaanbaatar's air pollution problem is growing with the city, whose population has almost tripled in size since 1990. Today, almost half of Mongolia's population – around 1.5 million people – live in this metropolis that lies in the Tuul River valley. The fact that the city is surrounded by mountains only exacerbates the problem. In the winter months, cold air sinks into the valley and is trapped by a bell jar of warm air. This makes it difficult for the pollutants to escape, so they accumulate in the cold air – with correspondingly disastrous effects on its quality.<sup>5</sup>

The rampant rural exodus and unregulated urban development mean that some 60 per cent of Ulaanbaatar's population now live in the northern yurt quarter, known as the *ger* district. Yurts (Mongolian: *ger*) are traditional nomadic tents covered with felt blankets.

Only a portion of the *ger* district residents has access to running water and electricity. Particularly during the cold winter months, when temperatures regularly drop below minus 30 degrees Celsius at night, they heat their yurts using raw coal. More than 80 per cent of the city's air pollution in winter can be attributed to roughly 600,000 tonnes of raw coal that are burned in the ovens in the *ger* district for heating and cooking between the beginning of November and the end of March.<sup>6</sup>

Another important factor is the increase in traffic. Between 2005 and 2018 alone, the number of vehicles in the capital rose from 75,000 to more than 530,000.<sup>7</sup> According to the WHO, motor vehicles are responsible for around ten per cent of particulate pollution; with increases that show no signs of slowing down. The Mongolian customs authorities report that 25,571 foreign cars were imported in the first quarter of 2019, which represents a growth of 40 per cent compared to the previous year. This is also problematic concerning the country's air pollution, since 97 per cent are used passenger cars that are at least two years old or older.<sup>8</sup>

The third-largest contributors to air pollution are the municipal coal-fired power plants, which account for around six per cent of the total. These power plants are very outdated, such as the Ulaanbaatar TES-1 power plant which has

been out of commission since 1988. However, a fifth power plant, Ulaanbaatar TES-5, has been in the pipeline for several years. It is supposed to produce heat with a capacity of up to 587 MW through heating water and to generate electricity with a capacity of up to 450 MW. The construction contract was signed in 2015. It is the first new coal-fired power plant to be built in Mongolia since 1984.<sup>9</sup>

### **Civil Society Protests and the Consequences for Health**

The biggest public protests against the increasing air pollution took place in the winter of 2016. They were initiated by Mothers Against Air Pollution, a Mongolian NGO. Thousands of people joined the demonstration on 27 December on the central Sukhbaatar Square in front of the Great State Khural, the Mongolian parliament building.<sup>10</sup> Continually high levels of frustration among the population are reflected by the public support given to B. Bat-Erdene, a resident of Ulaanbaatar, when he instigated an online petition to the United Nations (UN) in December 2018. In the space of just four days, he attracted 58,567 signatures – enough to require the UN to make an official statement. In its response, the UN asserted a willingness to work with all parties, including the government, businesses, and citizens, to make the case for clean air.<sup>11</sup>

The importance of winning the fight against air pollution is underlined by a recent report from UNICEF, the UN Children’s Fund. After all, especially children and pregnant women are those most afflicted by the repercussions of air pollution. Children living in a highly affected district of Ulaanbaatar were found to have an up to 40 per cent lower lung volume than children living in rural Mongolia.<sup>12</sup> Air pollution results in more miscarriages and premature births in Ulaanbaatar and many babies have a lower birth weight. According to UNICEF, approximately 435 children in Ulaanbaatar died of pneumonia in 2015 alone.<sup>13</sup> With regard to Mongolia as a whole, a country with a population of around three million inhabitants, the WHO estimates that 3,300 people died in 2016 from diseases

linked to air pollution. UNICEF estimates the costs of air pollution in 2016 – mainly medical expenses as a direct result of air pollution – to be 18.4 billion tugrik, or more than 6.2 million euros.<sup>14</sup>

### **Political Measures**

In March 2017, the Mongolian government adopted a national action plan aiming at an 80 per cent reduction in air pollution by 2025.<sup>15</sup> The government’s original plan was to tackle the problem through a targeted resettlement policy. It intended to move as many inhabitants of the *ger* district as possible into apartments with proper heating systems. Yet, very few people were able to afford the apartments because the banks did not view them as creditworthy.<sup>16</sup>

### **Improving living conditions within the *ger* district is part of the action plan to combat air pollution.**

Hence, the government is now focusing on steps to improve living conditions in the city’s slum. For example, since the beginning of the year, parts of the *ger* district that are connected to the electricity grid have been offered electricity free of charge during the night; however, the long-term effects are still hard to predict because only a few families own electric heaters. Air filters and electric heaters have now been made exempt from taxes in a bid to make them accessible to more people in the future. The burning of raw coal in private households was banned on 15 May 2019. The only exception is for municipal coal-fired power plants. The next winter will demonstrate what alternatives the government can offer people in place of the comparatively cheap raw coal, and whether the project can be successfully implemented. At the Mongolian Ecology Forum last October, Daniela Gasparikova, Deputy Resident Representative of the United Nations Development Programme (UNDP) in Mongolia, pointed out



the importance of securing production capacities for cleaner fuels before imposing the ban.<sup>17</sup> The government is currently turning its attention to the expansion of the *Tavan Tolgoi* factory.

This year, the latter's capacity to produce cleaner coal briquettes is supposed to be increased from 200,000 tonnes to 600,000 tonnes.<sup>18</sup>



Impoverished areas lacking electricity and water: About 60 per cent of the population of Ulaanbaatar lives in the yurt district (also known as ger district) situated in the north of the city. [Source: © Bazarsukh. Rentsendorj, Reuters.](#)

Mongolia's President Khaltmaa Battulga, a member of the opposition Democratic Party, who was directly elected by the people in 2017, is especially promoting another plan to take the pressure off

Ulaanbaatar and improve its air quality. He is a long-standing supporter of constructing a new eco-city named Mairdar City close to Ulaanbaatar. Cologne-based architect Stefan Schmitz, who has

been working on the project since 2012, carried out its design. The first 90,000 inhabitants are to move into their apartments in the city as early as 2030.<sup>19</sup> Clean air will be ensured by focusing on a power supply that uses renewable energy sources.<sup>20</sup> However, no buildings have been erected to date and there seems to be a lack of investors. Hence, doubts prevail about whether the project will ever be realised.

### Growing Scepticism towards Politicians

In the wake of the revolution in 1990, a stable democracy with a multiparty system, free elections, and separation of powers has established itself. However, this positive development has been marked by constant changes of government and numerous corruption scandals. The growing scepticism towards responsible politicians is also reflected in the fight against air pollution. The government's actions have not achieved the hoped-for results, leading many citizens and political commentators to suspect that this is due to vested interests, nepotism, and fraud. *The UB Post* reported that in 2018, 489.6 million tugrik (more than 170,000 euros) were earmarked in the budget for planting one million trees in Ulaanbaatar. The problem? The money is gone, but nobody can locate the trees.<sup>21</sup>

### Public concern and resistance to short-term and costly measures have led to many of them failing.

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The public's concerns about short-term and costly measures have intensified to such an extent that many have recently failed or been prematurely discontinued due to public resistance. In October 2018, when the newly appointed Environment Minister N. Tserenbat suggested the installation of chimney filters in the *ger* district, he quickly had to withdraw his proposal in the face of fierce criticism in social media and the press.<sup>22</sup> Just a few weeks later, the same fate awaited a government plan to

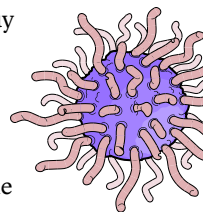
fund winter breaks over a period of five days for pregnant women and mothers with children under the age of five at a health resort outside Ulaanbaatar. A government study concluded that around 10,600 pregnant women, 35,000 mothers, and 65,000 children would be eligible to participate in the programme, and that it would cost about eight billion tugrik (approx. 2.7 million euros). Public resistance to it was so strong that the government had no choice but to immediately drop this idea, too.<sup>23</sup>

A recurring argument propounded by critics is that the money could be more effectively spent on the construction of housing. According to calculations made by journalist T. Bayarbat, between 2008 and 2016 alone, the state, the city of Ulaanbaatar, and foreign donors spent 557.2 billion tugrik (almost 200 million euros) on combating air pollution. This would have been enough money to build more than 17,000 36 square meter apartments.<sup>24</sup> He contended that providing residents of the *ger* district with these apartments free of charge would have significantly improved the overall situation.

President Battulga recently joined in the criticism. He called for a General Inquiry Hearing at the State Palace, where a representative read out his speech. In it, he criticised the current government under the Mongolian People's Party for its lack of progress in combating air pollution and for squandering public funds. He claimed it had spent a fortune on advertising, websites, and staff in lieu of dealing with problems on the ground. The speech also referred to an individual responsible for the Clean Air Fund – who is still at large – who embezzled the money to buy himself a luxury car and expensive shoes.<sup>25</sup>

### International Efforts and Projects

Sandwiched between the Russian bear and the Chinese dragon, sparsely populated Mongolia seeks to maintain a balanced relationship with its two neighbours. Yet at the same time, this landlocked country is striving to build closer ties with the highly developed democracies of the West, particularly the EU, Japan, and the



US, through its so-called third neighbour policy. These good relations are also reflected in the plethora of projects, both large and small, that foreign states and donor organisations are promoting in order to improve air quality in Ulaanbaatar.

For example, the state-owned Japanese development authority, Japan International Cooperation Agency (JICA), is involved in a number of projects. In January this year, the Agency signed an agreement with the Mongolian government with the aim of testing the production and use of less harmful briquettes for heating in the *ger* district.<sup>26</sup> As early as November of the previous year, there were media reports about a pilot project run by JICA involving an initial installation of 25 exhaust filters for public buses. Since late 2018, the Swiss Agency for Development and Cooperation joined forces with UNICEF and the Mongolian government to work on a project aiming to decrease the occurrence of pneumonia in children under the age of five and to reduce the risks to pregnant women posed by air pollution. Within the framework of the project, which is initially set to run until 2021, the two organisations will help the Mongolian government to raise public awareness, improve indoor air quality in kindergartens, and expand medical care and services in the winter months.<sup>27</sup> Meanwhile, the “Energy Efficient Building Refurbishment in Mongolia” project, set up by the German Corporation for International Cooperation (GIZ), aims to reduce energy consumption in public institutions and companies.

Even a cursory glance at some of the current initiatives reveals how Ulaanbaatar’s air pollution plays a prominent role in development cooperation, too. According to the President’s office, between 2008 and 2019, foreign donors spent 104.7 million US dollars on aid and loans in an effort to combat air pollution.<sup>28</sup> However, the experts of the UNDP claim that there is a lack of foreign direct investment in the private sector in this area. In reality, the country has enormous potential for generating solar and wind energy: With 270 days of sunshine a year and an area the size of Greece that is suitable for

generating wind energy, it would seem to have the ideal conditions.<sup>29</sup> In spite of this, investors are holding back because past experience dictates that politicians no longer feel bound by previous agreements when there is a change of government. For instance, direct investment plummeted from just under 2.1 billion US dollars in 2012 to a mere 110 million US dollars in 2015.<sup>30</sup> Providing credible legal certainty in this area could be a decisive step towards securing long-term improvements in the quality of life for Ulaanbaatar’s residents.

### Dublin and Launceston as Role Models?

The example of Ireland shows that there are successful ways of dealing with air pollution. The Irish Smoky Coal Ban was introduced in 1990, which prohibited the marketing, sale, and distribution of bituminous coal in Low Smoke Zones, including Dublin.<sup>31</sup> This led to a significant decline in fine particulate air pollution in the affected areas. In Dublin alone, the death rate fell by 5.7 per cent in the following 72 months and significantly fewer people suffered from respiratory and cardiovascular diseases.<sup>32</sup>

In 1994, the city of Launceston, Tasmania, began to counteract the increasing problem of fine particulate air pollution caused by burning wood via extensive information campaigns as well as the promotion of electricity for heating. According to the Launceston Wood Heater Replacement Program, a comprehensive government intervention programme, the number of wood-burning stoves used for heating private households in the city fell from 66 per cent to merely 30 per cent between 2001 and 2004. Here too, fine particulate air pollution was reduced and the number of deaths from respiratory and cardiovascular diseases fell significantly.<sup>33</sup>

However, it becomes immediately clear that it is not possible to simply transfer the experiences of Dublin and Launceston to Ulaanbaatar. In addition to the poverty of the *ger* district, Ulaanbaatar’s inadequate infrastructure is also a key factor, as only part of the *ger* district has access



to electricity and could therefore use electric heaters. On top of this, the flood of people from rural regions in Mongolia continues unabated. The concentration of economic development in the capital, the lack of infrastructure in the provinces, and the desertification of the country due to climate change and natural disasters pose major challenges to the rural population. UN-Habitat, the United Nations Human

Settlements Programme, predicts that the population of Ulaanbaatar will increase by roughly 900,000 to 2.4 million by 2040 should the rural exodus continue.<sup>34</sup>

### **Outlook**

Two years after the Mongolian Security Council declared Ulaanbaatar's air pollution to be a





Clad in fog: More than 80 per cent of the winter air pollution of Ulaanbaatar is attributed to around 600,000 tonnes of raw coal used for heating and cooking. [Source: © Bazarsukh Rentsendorj, Reuters.](#)

though, will depend on whether it is possible to provide the population with cheap alternatives to dirty raw coal. Alongside the financial aspect, another key issue when it comes to electric heating is the expansion of the electricity grid in the *ger* district.

Over the medium term, improving the public transport system and renewing or modernising the municipal coal-fired power stations could provide further relief. In the long run, the expansion of renewable energies, in particular wind and solar power, seems to be a real alternative to coal in Mongolia; however, this is heavily dependent on foreign investment. If Mongolia's politicians could credibly guarantee investment security and combat rampant corruption, this would not only benefit the economy. It could be another milestone towards ensuring that Ulaanbaatar and its residents no longer have to spend their winters suffocating in smog.

*-translated from German-*

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national emergency, the government presents a mixed record. Plans to relocate the residents of the *ger* district to urban apartments have foundered, along with the widespread installation of chimney filters. Nevertheless, the government has taken the first bold steps in the right direction by banning the burning of raw coal and offering tax incentives for electric heating systems. The success of these projects,

- 1 Cf. The UB Post 2018: UN Responds to 'Death from Smog in Mongolia' petition, 28 Dec 2018.
- 2 Cf. Cousins, Sophie 2019: Air Pollution in Mongolia, Bulletin of the World Health Organization 2019: 97, pp.79–80, here: p.79, in: <https://bit.ly/2WpIsTq> [22 May 2019].
- 3 Cf. Gheorghe, Adrian / Ankhbayar, Batbayar / van Nieuwenhuyzen, Henlo / de Sa, Rogerio 2018: Mongolia's air pollution crisis: A call to action to protect children's health, UNICEF, Feb 2018, p.15, in: <https://uni.cf/2LElFtR> [22 May 2019].
- 4 Cf. Landesamt für Natur, Umwelt und Verbraucherschutz Nordrhein-Westfalen 2010: Gesundheitliche Wirkungen von Feinstaub und Stickstoffdioxid im Zusammenhang mit der Luftreinhalteplanung, p.5, in: <https://bit.ly/2MfTtCX> [22 May 2019].
- 5 Cf. Müller, Matthias 2019: Die Mongolen ringen nach Atem, Neue Zürcher Zeitung, 15 Mar 2019, in: <https://nzz.ch/ld.1459796> [22 May 2019].
- 6 Cf. Cousins 2019, n.2, p.79.
- 7 Cf. Bold, B. 2018: 958,000 vehicles were registered at national level, Montsame, 13 Dec 2018, in: <https://montsame.mn/mn/read/174239> [22 May 2019].
- 8 Cf. Dulguun, B. 2019: Passenger Car Import Up 40 %, in: The UB Post, 10 May 2019.
- 9 Cf. Tsolmon, Battulga 2019: Contract signed for construction of "Thermal Power Plant 5", Barilga.mn, 29 Jul 2015, in: <https://bit.ly/2YD5P9a> [22 May 2019].
- 10 Cf. Batmandach, G. 2016: Twenty thousand parents to demonstrate against air pollution, NewsMN, 23 Dec 2016, in: <https://bit.ly/30DkD9C> [22 May 2019].
- 11 Cf. The UB Post 2018, n.1.
- 12 Cf. UNICEF 2018: Mongolia's air pollution is a child health crisis, 21 Feb 2018, in: <https://uni.cf/30AGv5O> [22 May 2019].
- 13 Cf. Gheorghe et al. 2018, n.3, p.16.
- 14 Cf. *ibid.*, pp.25 f.
- 15 Cf. WHO 2018: Air Pollution in Mongolia: Policy Brief, 28 Feb 2018, in: <https://bit.ly/2Y0dge7> [22 May 2019].
- 16 Cf. Tugchin, K. 2018: Raising Children amid Pollution, in: The UB Post, 16 Nov 2018, p.2.
- 17 Cf. Gasparikova, Daniela 2018: Keynote speech at Mongolian Ecology Forum 2018, UNDP, 19 Oct 2018, in: <https://bit.ly/2Radk3W> [22 May 2019].
- 18 Cf. Misheel, B. 2019: Improved fuel factories operating 24/7, Montsame, 12 Feb 2019, in: <https://montsame.mn/en/read/179767> [22 May 2019].
- 19 Cf. Jeppesen, Helle 2018: Städte für die Zukunft, Deutsche Welle, 7 Feb 2018, in: <https://p.dw.com/p/2sF4a> [22 May 2019].
- 20 Cf. Damm, Andreas 2014: Metropole Mairdar City Kölner Architekt entwirft eine Metropole in der Mongolei, Kölner Stadt-Anzeiger, 24 Nov 2014, in: <https://ksta.de/563890> [22 May 2019].
- 21 Cf. Bayarbat, T. 2018: Air pollution business swallows 557.2 billion MNT, in: The UB Post, 7 Nov 2018.
- 22 Cf. Tugchin 2018, n.16, p.2.
- 23 Cf. Turmunkh, R. 2018: Should [sic!] waste 8 billion MNT in the name of air pollution reduction?, in: The UB Post, 21 Dec 2018.
- 24 Cf. Bayarbat 2018, n.21.
- 25 Cf. Unurzul, M. 2019: President attends General Inquiry Hearing on Air Pollution, Montsame, 31 Jan 2019, in: <https://montsame.mn/en/read/179138> [22 May 2019].
- 26 Cf. Munkhzul, A. 2019: Third phase begins for project on reducing air pollution of Ulaanbaatar city, Montsame, 3 Jan 2019, in: <https://montsame.mn/en/read/176074> [22 May 2019].
- 27 Cf. Swiss Confederation 2018: UNICEF and SDC Join Efforts for the Children of Mongolia, 17 Dec 2018, in: <https://bit.ly/2Jzk8rU> [22 May 2019].
- 28 Cf. Unurzul 2019, n.25.
- 29 Cf. Gasparikova 2018, n.17.
- 30 Cf. Federal Foreign Office 2019: Mongolei: Wirtschaft, Länderinformationen, in: <https://bit.ly/2JTRQYE> [22 May 2019].
- 31 Cf. Department of Communications, Climate Action and Environment: Smoky Coal Ban, in: <https://bit.ly/2jyquMU> [22 May 2019].
- 32 Cf. Clancy, Luke / Goodman, Patrick G. / Sinclair, Hamish / Dockery, Douglas W. 2002: Effect of air-pollution control on death rates in Dublin, Ireland: an intervention study, in: The Lancet 360: 9341, pp.1210–1214, here: p.1213.
- 33 Cf. Johnston, Fay / Hanigan, Iva / Henderson, Sarah / Morgan, Geoffrey 2013: Evaluation of interventions to reduce air pollution from biomass smoke on mortality in Launceston, Australia: retrospective analysis of daily mortality, 1994–2007, *thebmj*, 346: 7890, 8 Jan 2013, in: <https://bit.ly/2HKCLG7> [22 May 2019].
- 34 Cf. Altanbagana, M. / Davaanyam, S. / Tuvshinbat, D. / Kherlenbayar, B. 2016: Mongolia Habit III National Report, p.8, in: <https://bit.ly/2VE1As5> [22 May 2019].



[Global Health](#)

# “Leave No One Behind”

Implementing Health-Related Sustainable Development  
Goals in Fragile and Conflict-Ridden Countries

[Veronika Ertl / Martina Kaiser](#)

In the global Sustainable Development Goals of the 2030 Agenda, adopted in 2015, the issue of health plays a central role for the achievement of sustainable development. Particularly in fragile and conflict-ridden countries, such as Venezuela and Yemen, these ambitious goals face numerous challenges that call their chances of success into question.

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### **Health as a Prerequisite for Sustainable Development**

Health is a commodity that should be accessible to everyone, no matter their socio-economic status, ethnicity, gender, or geographical location. The founding fathers of the United Nations came to this conclusion as early as 1948 when they included the corresponding passage in Article 25 of their Universal Declaration of Human Rights. The same year saw the founding of the World Health Organization (WHO), an institution with the goal of enabling “the attainment by all peoples of the highest possible level of health”<sup>1</sup> and whose strategic priorities also reflect the idea that health and sustainable development are inextricably linked. Accordingly, the activities in the current work programme are also subordinate to the health-related objectives of the 2030 Agenda.<sup>2</sup>

The nexus between health and sustainable development was also addressed in the United Nations Millennium Development Goals (MDGs), which, from 2000 to 2015, formed the overarching global framework for tackling numerous development-inhibiting challenges and served as the template for today’s Sustainable Development Goals (SDGs). In both development visions, improving the health of all people plays a central role as “a precondition, an indicator, and an outcome of sustainable development”.<sup>3</sup>

The final United Nations report on the Millennium Development Goals documents the fact that considerable progress had already been made in many health-relevant areas by 2015.<sup>4</sup> For instance, the proportion of malnourished

people in developing regions has fallen from 23.3 per cent (1990 to 1992) to 12.9 per cent (2014 to 2016). The mortality rate for children under the age of five has been reduced by more than half worldwide, between 1990 and 2015. In addition, the global maternal mortality rate has also fallen by 45 per cent during that period. Nevertheless, these developments, which appear to be positive at first glance, must not be allowed to obscure the fact that most of the MDGs were not reached, and that progress was unevenly distributed, both between world regions and between urban and rural areas. The great call for the “Post-2015 Development Agenda”, adopted by the UN General Assembly in September 2015 as the Agenda 2030, was also a call for efforts to continue to be made in order to improve health care for people around the world.

The extent to which health is anchored in the 2030 Agenda is particularly evident in SDG 3 – “Ensure healthy lives and promote well-being for all at all ages”. It has 13 sub-goals, including reducing global maternal and child mortality, combatting communicable diseases, and ensuring access to universal health care. Health-related goals and indicators can also be found in many other SDGs.

### **Specific Challenges in Fragile Contexts and Conflict Situations**

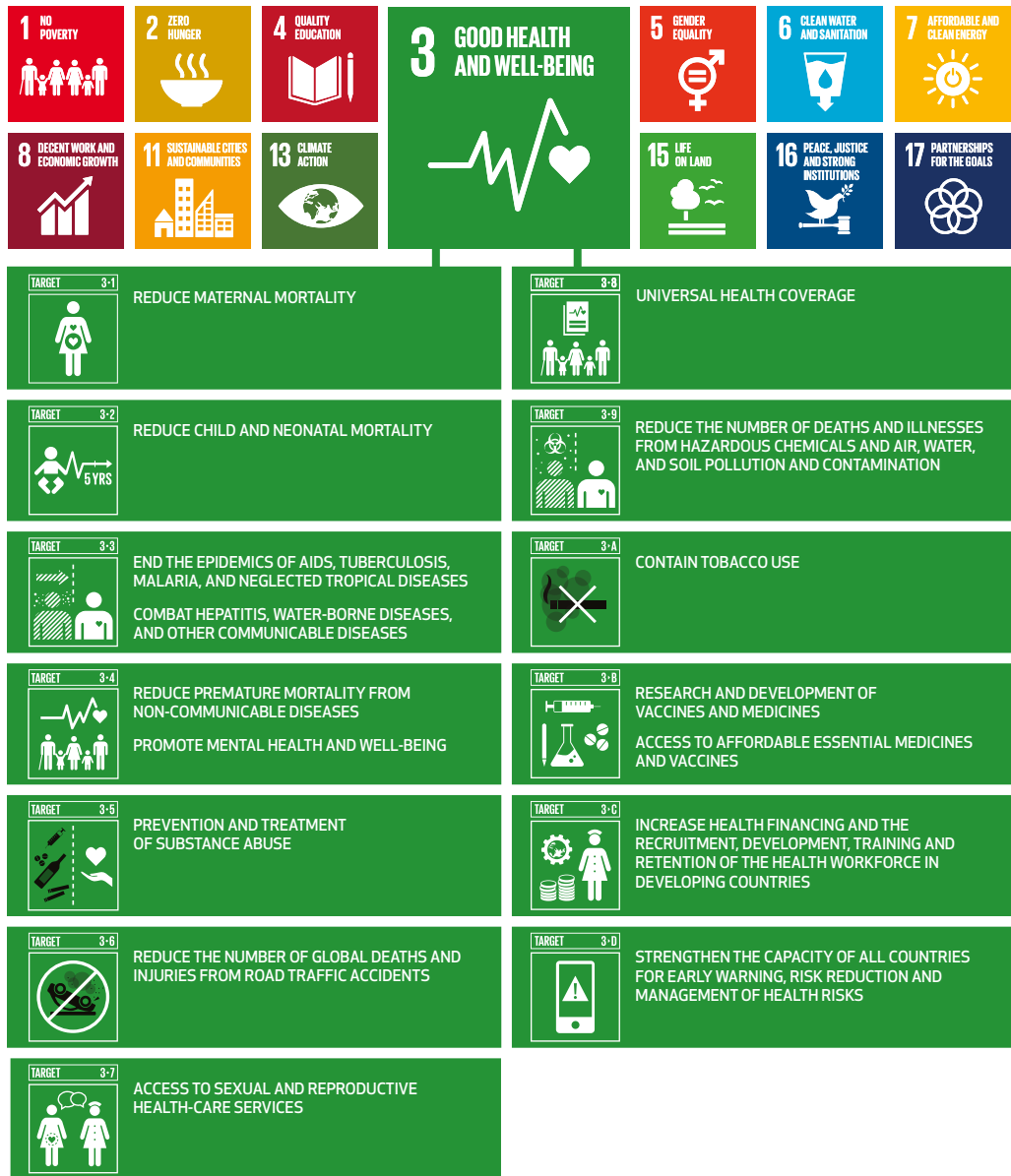
In SDG 3, which is central to health concerns, sub-goal 3.8, “achieve universal health coverage (UHC), including financial risk protection, access to quality essential health care services, and access to safe, effective, quality, and affordable essential medicines and vaccines for all”,<sup>5</sup> is considered an important lever for

reaching health-related goals.<sup>6</sup> However, fragile and conflict-ridden countries, in particular, are far from achieving this goal, as their capacity to provide even basic health services is often severely limited.

Illustrative of this is the fact that 50 per cent of the as of yet unachieved health-related goals,

such as those regarding maternal and child mortality, relate to fragile contexts.<sup>7</sup> If fragile situations are also characterised by conflict, it is not only the number of deaths and injuries caused by conflict actions that rises. The destruction of infrastructure and housing associated with conflict also leads to a deterioration of general living conditions, impedes access to food, clean water,

**Fig. 1: SDG 3, Its Sub-Goals and Other Health-Related SDGs**



Source: Sustainable Development Goals, UN 2015.

and sanitation, and thus creates much greater health risks for the affected populations. Only a fraction of deaths in conflict situations is caused by direct combat; the majority of cases of deaths are due to disease and malnutrition<sup>8</sup> – deaths which could often be avoided by access to health services. Health systems in fragile contexts and conflict situations are, however, often greatly limited in their functions due to the deliberate or collateral destruction of facilities, the flight of health personnel, and the insufficient availability of medication. In many cases, private providers take the place of collapsed public health systems. However, financial cost means that only a small, privileged social class has access to these private services.<sup>9</sup> Women, children, the chronically ill, and refugees, including internally displaced persons (IDPs), are amongst the most vulnerable groups in fragile contexts.

## The impacts on public health in a country persist up to ten years after the end of a conflict.

In these contexts, the provision of health services is therefore often limited to emergency treatment due to severely limited capacity. Preventative treatments, vaccinations, and the treatment of chronically ill patients are the first to be abandoned due to insufficient finances and operational capacity.<sup>10</sup> In many cases, this leads to new outbreaks of diseases that had once been thought eradicated, and to the rapid spread of epidemics. Thus, more than 80 per cent of outbreaks of major epidemics occur in fragile contexts – often with cross-border effects because of migration flows.<sup>11</sup> Nor do negative effects end with the end of the conflict. Experts estimate that the impacts on public health persist for up to ten years after the end of a conflict.<sup>12</sup>

Such setbacks in fragile and conflict-ridden states therefore present a risk to the achievement of the health goals worldwide that should not be underestimated since in the worst case, they can set entire regions back years in their development.

## Fragile Health: Venezuela and Yemen

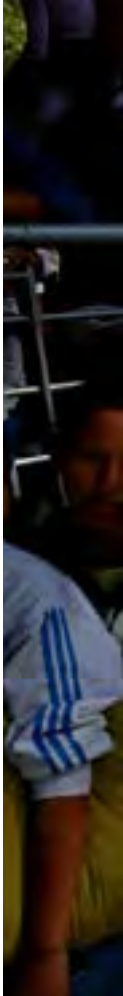
Below, these challenges will be illustrated by two case studies. Venezuela is a fragile state, which, due to its economic and political situation, is unable to maintain or increase its population's health level at the moment; instead, it is falling below the standards it had already achieved with regard to the 2030 Agenda's health-related goals. Yemen's starting position with respect to health indicators was poor, and years of conflict have exacerbated existing weaknesses, fostered the emergence of new threats, and thrown the country far back in its progress towards achieving the goals.

### Venezuela – A State of Emergency

#### *Causes and Extent of the Current Crisis*

Venezuela, the world's most oil-rich country, with a population of 32 million as of 2018, is currently in a political, economic, social, and humanitarian crisis. This has prompted more than 2.7 million people to leave the country since 2015.<sup>13</sup> Over the same period, GDP has fallen by about 50 per cent, and inflation for 2019 is estimated at seven-digit rates.<sup>14</sup> The country is greatly dependent on imports, and the 54 per cent drop in its oil extraction since 1998, along with the international decline in crude oil prices last year, have meant an 18 per cent drop in Venezuelan GDP.<sup>15</sup>

The consequences of this economic crisis are felt primarily by the country's population, which is suffering from a widespread supply crisis. Since the crisis began, there has been a shortage of food, clean drinking water, and medical services throughout the country. This runs counter to the central objectives of the 2030 Agenda, which the Nicolás Maduro government has committed itself to implement.<sup>16</sup> These conditions impair the function of health-related infrastructures. Insufficient supply weakens people, especially vulnerable groups such as children, women, and the sick, and makes them more susceptible to disease. Hyperinflation raised the price of an average shopping basket by 283,880 per cent in





Supply crisis: Since the outbreak of the economical and governmental crisis in Venezuela, there has been a lack of food, clean drinking water, and medical supplies. Source: © Carlos Garcia Rawlins, Reuters.

2018.<sup>17</sup> The majority of the population can no longer afford the basic food and medicine they need, especially since the state-set minimum wage is insufficient and rapidly depreciating in value due to inflation.<sup>18</sup>

#### *Effects of the Crisis on Health-Related Factors*

The economic and political crisis in Venezuela has led to a deterioration of many of the country's health-related indicators. These include food security (SDGs 2.1 and 2.2), infant mortality (SDG 3.2), maternal mortality (SDG 3.1), basic health services (SDG 3.8), the spread of infectious diseases (SDG 3.3), access to safe drinking water, sanitation, and energy (SDGs 6.1, 6.2, and 7.1), as well as the number of victims of intentional killing and conflict-related deaths (SDG

16.1). This is primarily due to the acute economic and medical supply crisis. Another cause is the rise in violence and criminality, some of which is itself caused by the supply crisis.

As a consequence of governmental mismanagement, Venezuela has become strongly dependent on imports of food and consumer goods. Constantly falling agricultural production means that current levels of production cover only 25 per cent of the national demand.<sup>19</sup> At the same time, imports of staple foods fell by 67 per cent between 2016 and 2017.<sup>20</sup> Despite state distribution of food by means of the so-called *Comité Local de Abastecimiento y Producción* (Local Supply and Production Committee), or CLAP boxes<sup>21</sup>, 80 per cent of households suffered food shortages in 2018<sup>22</sup>, making malnutrition increasingly

widespread. While only 3.6 per cent of Venezuelans were malnourished in 2013, this number rose to 11.7 per cent by 2017. About 280,000 children under the age of five suffered from acute, life-threatening malnutrition in 2017.<sup>23</sup>

Basic health care for the population, as aimed for in SDG 3.8, has not been possible since the political and economic crisis in the country worsened because medicine, medical tools and devices, such as hypodermic syringes and scalpels, are no longer available in sufficient quantities. According to official Venezuelan government reports, the infant mortality rate rose by 30 per cent between 2015 and 2016, and the maternal mortality rose by as much as 65 per cent – a devastating development in view of the targets of the 2030 Agenda.<sup>24</sup>

Those with chronic illnesses are hit especially hard by the medical supply crisis. For instance, 87 per cent of registered AIDS patients were cut off from medication,<sup>25</sup> which led to the deaths of over 5,000 people.<sup>26</sup> Illegal drug trafficking on the black market poses additional health risks. Moreover, medical facilities are also limited in their ability to function properly. In a national hospital study conducted in March 2018, 70 per cent of the facilities surveyed stated that they had only irregular supplies of power and drinking water.<sup>27</sup> In addition, because of low pay, 22,000 doctors left the country between 2012 and 2017,<sup>28</sup> further exacerbating the medical supply crisis. One lever for counteracting this development would be the measures described under sub-goals 3.c and 3.d of the 2030 Agenda: recruiting, training, and retaining the health workforce and calling for a strengthening of “the capacity of all countries... for early warning, risk reduction, and management of national and global health risks.”<sup>29</sup> If these goals were to be sustainably pursued and implemented, fragile and conflict-ridden countries would also be better equipped to deal with health crises.

The shortage of medication, medical care, and clean drinking water has resulted in a renewed spread of preventable infectious diseases as well as of previously eradicated diseases. For

Refugees in their own country: Due →  
to the conflict, millions of Yemenis had  
to leave their houses and move to  
provisional refugee camps.

Source: © Khaled Abdullah, Reuters.

instance, between June 2017 and September 2018, there were 5,500 cases of measles, 64 of which were fatal. Between 2008 and 2015, there had been only a single case.<sup>30</sup> In 2017, cases of tuberculosis rose to their highest levels in 40 years.<sup>31</sup> Cases of diphtheria and malaria have also risen dramatically over the course of the crisis. The latter disease had been considered eradicated in Venezuela since 1961, but between 2010 and 2015, the number of cases rose by 359 per cent. Because of reduced efforts at combating the malaria-carrying mosquito and bottlenecks in the supply of malaria medication, this figure rose again by 71 per cent to 411,586 cases, between 2016 and 2017.<sup>32</sup>

Access to electricity and clean drinking water, which have deteriorated severely over the course of the crisis, are also key indicators for achieving SDG 3. For instance, in March this year, almost the entire country suffered from extended power outages, and an associated collapse of the drinking water supply. Only 18 per cent of the population currently have regular access to clean water.<sup>33</sup> The weaknesses in power and water supply, which are primarily due to government failures, have been exacerbated by climate-related incidents.<sup>34</sup>

In view of the ongoing political crisis, no improvement in health-related indicators is in sight for Venezuela. A small ray of light here is the fact that, since mid-April, Red Cross has had permission to supply the suffering population in Venezuela with drinking water, food, and the most necessary medications.

### **Yemen – Humanitarian Crisis on the Arabian Peninsula**

Having been called “Arabia Felix”, the happy Arabia, by the Romans due to its riches, the name hardly fits Yemen today. After more than





four years of war, the country is suffering one of the most severe humanitarian crises in the world. According to UN estimates, 24.1 million people, or 80 per cent of the population, are reliant on humanitarian aid. Food insecurity and acute malnutrition endanger large parts of the population; around 18 million people have no access to safe water or sanitation services, and more than four million have been forced to leave their homes. Since 2017, preventable

diseases such as cholera and diphtheria have been spreading.<sup>35</sup>

Even before the conflict began, high levels of poverty and insufficient access to health care, sanitation, and drinking water kept Yemen far from achieving international health-related goals. The conflict and resulting destruction have turned this already difficult situation into a humanitarian crisis.



In ruins: After four years of conflict, air raids, and combats, large parts of Yemen's health infrastructure are destroyed. Source: © Khaled Abdullah, Reuters.

### *Destruction of Health Infrastructure*

One important factor in the current crisis is the destruction of an already weak health infrastructure. As a result of air raids and fighting, as well as of limited medical supplies and staff shortages, – with federal pay having been stopped since 2016 – only half the country’s health facilities remain operational.<sup>36</sup> Thus, 19.7 million Yemenis no longer have adequate access to

health services.<sup>37</sup> In this situation, basic health services, as envisaged in SDG 3.8, are nowhere close to being provided. Moreover, 120 attacks on health facilities have been registered since 2015, leading to further closures and flight of health personnel.<sup>38</sup> The private health service providers, some of which are still operating, are inaccessible to most of the population because of their high cost.

### *Outbreaks of Preventable Diseases*

In the context of insufficient access to health services, the almost complete cessation of vaccinations,<sup>39</sup> and the rising numbers of people with inadequate access to safe drinking water and sanitation (now almost 18 million), preventable diseases and previously eradicated diseases have been spreading since 2016. For instance, since 2017, the country has experienced the worst cholera outbreak in its history. This has so far resulted in 1.3 million outbreaks of the disease, almost 2,800 of them fatal.<sup>40</sup> Diphtheria has also spread since the end of 2017, with 3,200 suspected cases so far.<sup>41</sup> The seasonal outbreaks of malaria and dengue fever have worsened significantly since the conflict began.<sup>42</sup> The majority of these cases could be treated by rapid access to medical care, but under current conditions are often fatal. With regard to combatting water-borne and neglected tropical diseases (SDG 3.3) and increasing vaccinations among the population (SDG 3.b), the country has thus been clearly moving further away from achieving SDG targets.

### *Food Insecurity*

After four years of conflict, more than 20 million people – 67 per cent of the population – are affected by food insecurity, and almost 10 million of them suffer from extreme hunger.<sup>43</sup> Around two million children are acutely malnourished.<sup>44</sup> Because Yemen is 90 per cent dependent on food imports, conflict-related interruptions and obstacles to imports hit the population especially hard.<sup>45</sup> With regard to combatting hunger and food insecurity (SDGs 2.1 and 2.2), Yemen is thus increasingly falling



short of achieving the Sustainable Development Goals. The economic collapse, currency depreciation, and massive rise in food and fuel prices have pushed 81 per cent of the population below the poverty line. Even in places where food is available, many Yemenis can simply no longer afford it.<sup>46</sup> The eradication of poverty postulated in SDG 1 thus seems to have moved into the far distant future.

### *Insufficient Access to Drinking Water and Sanitation*

Even before 2015, Yemen was characterised by poor water and sanitation service provision – only 52 per cent of the population had access to safe drinking water, and 46 per cent to safe sanitation.<sup>47</sup> The conflict-related destruction of the water systems has noticeably exacerbated this situation, and thus prevents any improvement that might allow the corresponding SDGs (6.1 and 6.2) to be achieved. For instance, 17.8 million people have no access to clean drinking water or sanitary facilities.<sup>48</sup> This makes the population more susceptible to diseases and epidemic outbreaks, and moves the country farther away from SDGs 3.3 and 3.9.2, which aim to reduce the spread of diseases caused by contaminated water, and related deaths.

### *Impacts on Particularly Vulnerable Groups*

As in other fragile and conflict-ridden contexts, children, women, the chronically ill, and refugees, including IDPs, are especially vulnerable in Yemen. For instance, for the around 4.3 million IDPs, access to water, sanitation, and food is even more restricted than for the rest of the population.<sup>49</sup> Insufficient prenatal examinations and the rising number of births without qualified health personnel present contribute to an increase in maternal and neonatal mortality, which constitutes a setback in previous progress towards improving these indicators for SDGs 3.1 and 3.2.<sup>50</sup> The chronically and the critically ill also suffer greatly from this situation. Since the beginning of the conflict, 25 per cent of Yemeni dialysis patients have died each year, since the vital sessions have not been available.<sup>51</sup> The

proportion of deaths due to non-communicable diseases (including cardiovascular diseases, cancer, etc.) has risen from 23.1 per cent in 2015<sup>52</sup> to 57 per cent in 2018 due to insufficient treatment options. This presents a clear setback for the achievement of SDG 3.4.<sup>53</sup> Children are particularly at risk because of the combination of malnutrition, insufficient access to safe drinking water and health services, and great psychological strain.<sup>54</sup> This has entailed a negative development for the indicators of the number of children with appropriate development for their age with respect to health, learning, and psychosocial well-being (SDG 4.2.1). Save the Children estimates that 85,000 children under the age of five have died from illness and malnutrition since the conflict began.<sup>55</sup>

### *Direct Victims of Violence*

The Armed Conflict Location & Event Data Project (ACLED) registered more than 60,000 conflict-related deaths between January 2016 and November 2018.<sup>56</sup> UN figures indicate at least 17,640 civilian deaths, including 6,872 between March 2015 and November 2018.<sup>57</sup> These figures represent a drastic setback on the path to achieving the goal of reducing all forms of violence-related mortality (SDG 16.1).

**A rapid stabilisation of the humanitarian crisis in Yemen is currently not to be expected.**

### *Outlook*

As part of the UN-mediated peace talks in December 2018, President Hadi's government and the Houthis agreed on a cease-fire, inter alia. However, the success of the agreement remains uncertain,<sup>58</sup> and a rapid stabilisation of the country as a prerequisite for significant improvement in the humanitarian situation of the population, is currently not in sight.



## Conclusion

As the many interconnections in the SDGs indicate, health is a cross-cutting issue, the achievement of which is influenced by many factors, and in turn contributes to the achievement of other goals. While this creates positive synergy effects in stable, sufficiently funded contexts, fragile and conflict-ridden countries often experience a sort of downward spiral in which the effects of insufficient health, sanitation, food, and energy all reinforce each other. This leads to stagnation or even setbacks on the way to achieving health-related goals. Instead of moving towards universal, high-quality, affordable health care, fragile states are moving further away from this goal, as the examples of Venezuela and Yemen show. Despite the fundamental commitment of these countries' governments and of other states involved in the conflict to implement the 2030 Agenda, the worsening of health-related indicators in both cases suggests that pursuing these goals will not be a priority in either crisis situation. The reasons for this vary from case to case, but tend to be based on insufficient capacity, lack of political will and conflicting interests.

The forecasted rise in the proportion of people who live in fragile contexts around the world will continue to widen the gap between populations with access to suitable health care, and those in countries that have only partial access or none at all. This would be in clear contrast to the guiding principle of the global sustainable development goals: *leave no one behind*.

The international community should resolutely oppose such a development and advocate health as a public good and a human right. The 2030 Agenda, which was signed by more than 190 countries around the world, provides an important opportunity to address the complex challenges in fragile contexts.

The 2030 Agenda postulates universal access to health as a basic human right; achieving universal health care is thus established as a central goal in its own right so as to provide a better life

for all. At the same time, the networked character of the Agenda places the cross-cutting issue of health in the nexus of security, humanitarian aid, sustainable development, and peacekeeping – thus giving health a central role as “a prerequisite, an indicator and a result of sustainable development”, as was mentioned at the beginning of this article.<sup>59</sup>

By emphasising global partnerships, the Agenda also points the way to achieving the goals. Only a coordinated, networked approach, by all actors involved, derived from the needs of the respective populations, can successfully address the complex challenges of achieving health-related goals in fragile contexts. The financing priorities of international donors must also be adjusted accordingly. The World Health Organization estimates that the cost of achieving the 2030 Agenda's Global Health-related goals by the year 2030 will be between 134 and 371 billion dollars per year. In poor, and especially in fragile and conflict-ridden countries, the gap in funding for achieving the goals stands at 54 billion US dollars annually; there is, thus, a great need for financial support.<sup>60</sup> Ultimately, it is important for international efforts to also focus on increasing the relevance of the 2030 Agenda in the respective countries, and on enabling them to sustainably improve their health infrastructures and to make them more resilient.

However, it is also crucial that all those involved – states, parties to conflict, and other actors – are willing to acknowledge the importance of the 2030 Agenda with its universal character as an instrument of prevention and containment of conflicts and crises.

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*Ai: Dr. Milde, for your book In Transformationsgewittern (In Thunderstorms of Transformation), you travelled around the world in 90 days and visited 16 cities, from São Paulo to Cairo and Nairobi to Shanghai. What was the purpose of this?*

process cannot be precisely defined. It involves digital transformation in the work and private spheres, the growing power of algorithms, new types of political leaders, changes in individual habits, and much more besides. Not all these trends are related, so it is not possible to zero in on the transformation or even on a global formula. However, it is possible to follow the traces of the changes that are happening in different parts of the world. That's why I set off to visit a different country every week, so as to seek out the energy that is generating change.

**Georg Milde:** People have been talking about transformation for years now, yet this complex

*Ai: Where did you find this transformational energy to be at its strongest, and where did you find it to be lacking?*

and later on in my homeland, I noticed a sense of spiritual contentment. Of course, Japan and Germany operate at a high level, but I felt there was much more urgency in places like South Korea and China. However, the drive for transformation is not restricted to economic dynamics. Outside Europe, I repeatedly encountered instances where religious faith was a driving force – both among Muslims and among the growing number of evangelical Christians I met everywhere, from Rio de Janeiro to Seoul. In general, I observed that people feel most motivated when they discern meaning and an opportunity to participate in change. When this is not the case, people end up participating merely as consumers. Even if consummation amplifies and improves people's lives, it ends up working more as a narcotic. For instance, in the Brazilian favelas residents seem to prefer immersing themselves in telenovelas on their new flat screens than worrying about getting a better education for their children.

**Georg Milde:** The will for change is not directly linked to a country's economic strength. In Tokyo,

*Ai: In your book you argue that we need to convey a greater sense of meaning. Who do you mean by “we” in this context, and what kind of quest for meaning do you have in mind?*

in their droves, and nearly half of all marriages end in divorce. People are becoming more individualistic and pulling away from established structures. This gives them greater freedom but robs them of the predictability and certainties of the past. In times of change, many are looking for other ways of giving their lives direction and meaning – from yoga to self-help books promising a happier life to strict dietary rules. “Anything goes” may seem appealing at first, but at some point it becomes arbitrary. This was the unanimous view of people I talked to all over the world, from the US to India. Filling this new gap is one of the great challenges facing humankind, and particularly the question of how to meet the basic need for spirituality in light of the growing number of atheists. I believe educational policymakers have a duty to provide pupils with a broader and deeper education than is currently the case in many parts of the world. It should

**Georg Milde:** For years, the established churches and major political parties have been losing members

encompass life skills, different schools of thought and media literacy. This is particularly necessary in the Far East, where the focus of schools tends to be on rote learning rather than on encouraging students to think for themselves. Here in Germany, if future generations perceive greater meaning, they will not only be better developers and inventors, but also stronger supporters of the values and solidarity that make up our democratic system.

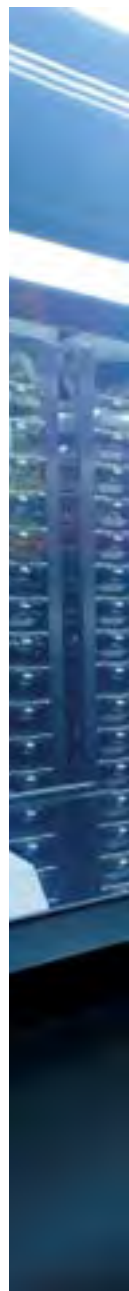
*Ai: And this really applies to all the countries you visited? Or, to ask it in a different, more general way: when you're visiting 16 cities in 90 days, isn't there a danger that you will project your own – in this case Western – perspective onto the rest of the world?*

**Georg Milde:** Conveying meaning, like the search for meaning, is far from being a Western phenomenon. And in response to your second question, we should have the right to stand up for our values, including in other parts of the world. Not in the sense of a colonial moral police or as crusaders in the digital age – but also not with a laissez-faire attitude that subordinates everything to our own economic interests. Development policy must be linked to certain standards: human rights, equal rights, the prohibition of child labour. Again and again I met Europeans abroad who considered the local population to be barely capable of democracy. I find that arrogant, because it leaves behind people who are unable to change their country for the better. The resigned attitude of noting that “other countries don’t attach conditions to the money they send to Africa” is simply cynical. The same goes for the argument that Chinese citizens care less about blanket surveillance with facial recognition cameras because their culture places less value on the individual.

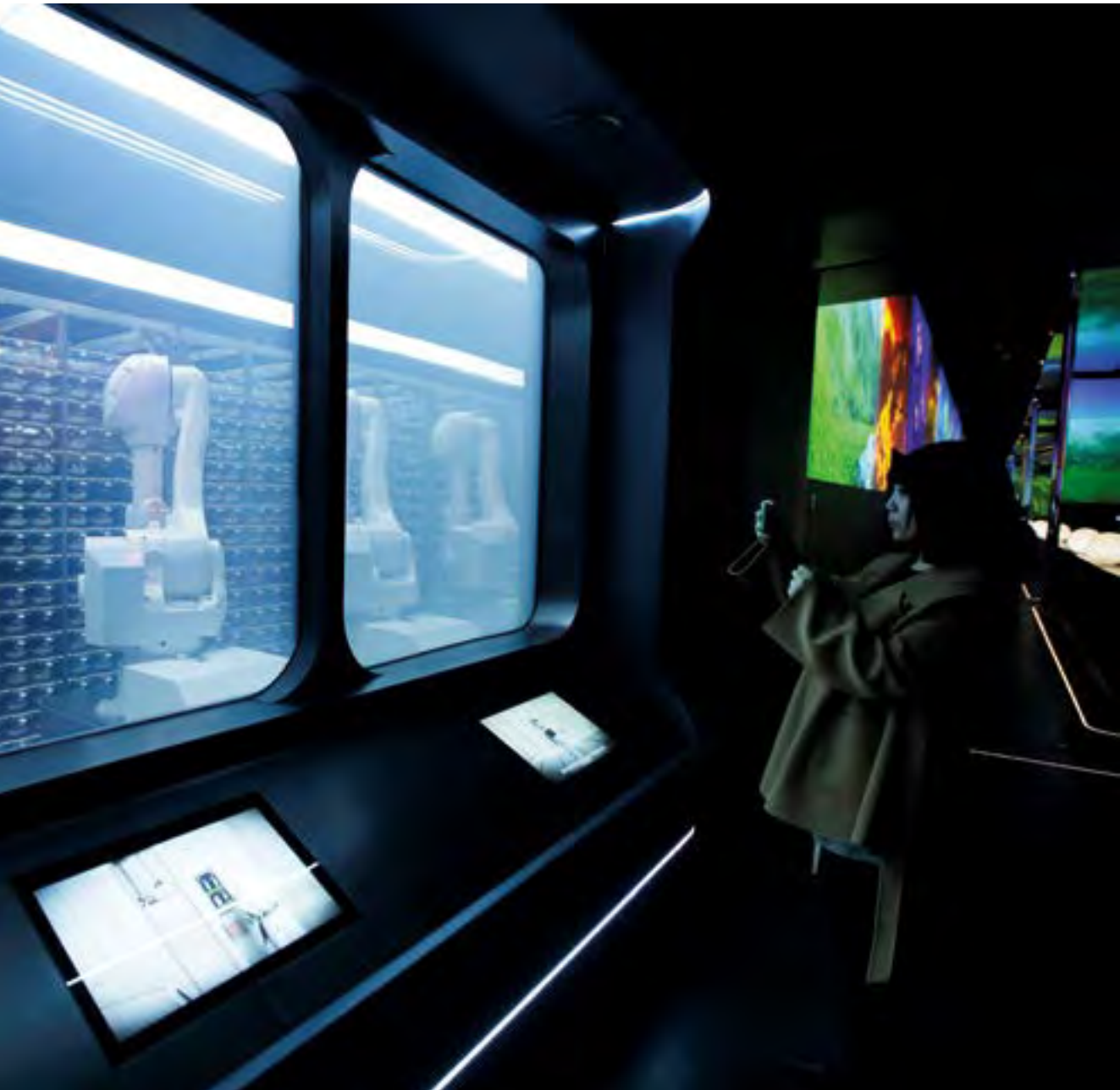
*Ai: My question was not so much about relative values, but rather about the extent to which it is possible to gain deeper insights that go beyond surface impressions and existing beliefs during such a short trip around the world. It's not exactly a revelation that Japan and Germany are ageing and not particularly dynamic societies, and that the search for meaning is a widespread phenomenon. With this in mind, I'd like to ask what surprised you the most on your journey, and where did you have to revise your image of a country the most?*

When you spend consecutive weeks in Tokyo, Seoul, Beijing and Shanghai you really begin to understand how these neighbouring countries have all been influenced by Confucianism, but with very different results. In one country, the fear of losing face really holds it back, while in another it fosters ambition and tempo. In general, I was surprised by what I saw of the new global middle class. In many countries, it is the upwardly mobile who are rapidly becoming the guardians of vested rights, who are more inclined to entrench the old power structures rather than demand new forms of co-determination. Those who have laboriously climbed their way to the top, soon turn their energies to slowing down potential competitors coming up behind them. Before my trip, my hope was that these people would increase the upward pressure

**Georg Milde:** It's easier to compare impressions when they are gained over a short period of time.



for reform, but by the time I reached East Africa I knew that the opposite was true. I was also surprised by the intensity and violence of the conflict, indeed the hatred experienced by many people around the world in their daily lives. Of course I wasn't expecting to see the world through rose-tinted lenses, but the spread of fake news and hate speech, particularly through social media, is contributing to a major escalation of conflict – especially in countries like India. And finally, I had to change my view of



The power of artificial intelligence: Artificial intelligence is set to take charge of key processes in the coming years. Is humanity increasingly losing control as a result? Source: © Jason Lee, Reuters.

the so-called Generation Z – people born around the turn of the millennium. They are much more active and persistent than is generally thought by the older generations. On your question as to which image of a country I had to revise the most: here in the West we may reject much of what is currently emerging in China for political and ideological reasons, but it is happening, and with an enormous dynamism that will eclipse or even supplant many things.

*Ai: Change or “transformation” is really nothing new. An aphorism often quoted in this context is: the only constant is change. I would therefore be interested to know what distinguishes the current change processes from previous phases. Or, to put it another way: couldn’t a book entitled In Transformationsgewittern (In Storms of Transformation) also have been written in 1990 or 2001 or 2008?*

something totally new: in the years to come we will give up much of our personal decision-making autonomy. Artificial intelligence is taking over key processes, something that was certainly not the case ten or 25 years ago. In this respect we tend to think of product recommendations from Alexa and Amazon, but I suggest we also need to take a closer look at the voters of the future. En masse election advertising is already being tailored to the profile of individual social media users using algorithms – a tool that is a particular favourite of populists on the political margins. These escalations are intensifying the growing divisions in many countries, as previously mentioned. The power of artificial intelligence is increasing daily. We humans are gradually losing control and we will not get it back. All too often, today’s banks and fintechs no longer know what data lies at the heart of decisions about whether or not a customer is deemed credit-worthy. We may still be far removed from the “social scoring” of the Far East, but we have also opened a Pandora’s box. This raises new ethical questions: What is our position on autonomous weapons systems? And, on a more everyday level, will there come a time when we decide that public video surveillance has become too widespread?

*Ai: At the end of your book you describe your return to Berlin and how your view of Germany had changed as a result of what you saw on your travels. How much have we already been affected by change, and what still lies ahead?*

very different in twenty years’ time. I’m not really thinking in terms of spectacular innovations like flying taxis, but about changes in our daily lives that might seem minor at first. Care assistants for the elderly will be replaced by care robots, and automatic checkout systems will be the norm in supermarkets. What does this kind of change mean for our society? This is why our education system has to strengthen various skills. It is not only a matter of users and consumers, but also about our fellow human beings. How do we communicate with each other, how do we personally deal with new methods of communication? I really don’t believe the spiritual contentment that I noticed in my homeland at the start, and which I also encountered in Berlin-Mitte on my return,

**Georg Milde:** Of course we have been through periods of change in the past, but now we are facing

**Georg Milde:** When it comes to global transformation, most of it still lies ahead. Our lives will be

to be irreversible. There are also counter-examples that show how change is already being used in positive ways today, for example two German companies are among the world's leading AI researchers. But we must not rest on our laurels because the coming years will be decisive. Whole occupations are disappearing, but new ones are being created. The changes and the resulting uncertainty have consequences for individual social groups, but also, and above all, for voters: will the precariously employed online delivery driver, working in the gig economy, turn to populist movements, or can the established parties find a way to reconnect, despite their declining membership? Politicians need to address this question as a matter of urgency.

*The interview was conducted by Sebastian Enskat.*

*-translated from German-*

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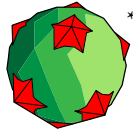
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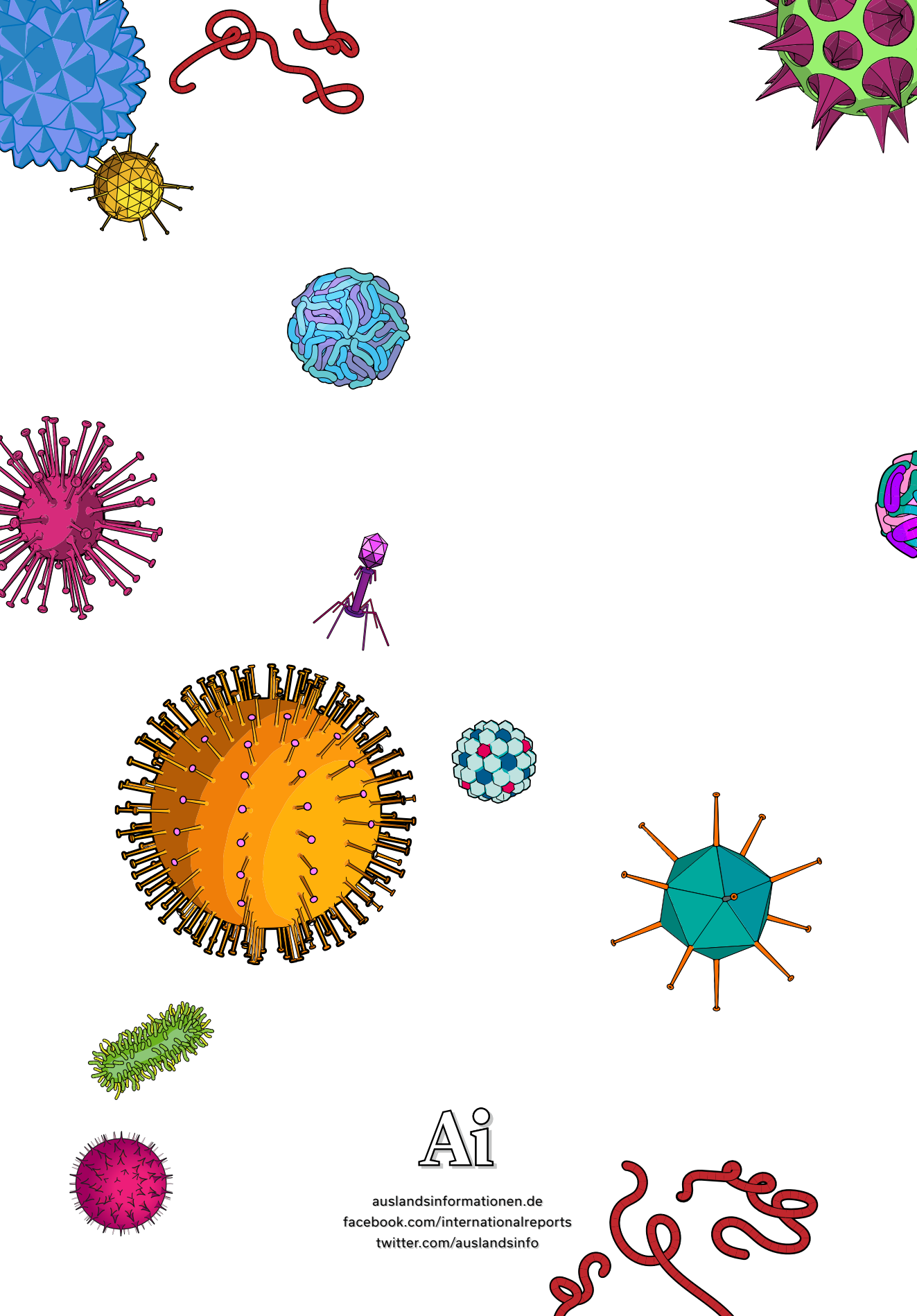
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