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AN OVERVIEW OF THE IMPACT OF COVID-19 ON SUSTAINABLE DEVELOPMENT GOALS (SDGs) ACHIEVEMENT IN NIGERIA

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Abstract

The year 2020 has witnessed a remarkable and an extraordinary Covid-19 crisis where many human lives have been lost. Covid-19 has uncovered essential weaknesses in our global system. It has exposed how the occurrence of poverty, susceptible health systems, lack of training and a lack of world cooperation exacerbate the crisis. The price of the pandemic in phrases of loss of lives is painful however the effects on the sustainable improvement potentialities are worrisome. Through many economic, social and political avenues, this pandemic is heralded to affect the world improvement desires and goals at a vast scale, more prominently on the Sustainable Development Goals (SDGs) in Nigeria. The SDGs purpose to attain sustainable improvement for the service of humanity by adopting 17 goals in 2015. This paper analyzes how this modern day pandemic is affecting the achievements of SDGs in Nigeria. While the deteriorating financial prerequisites will negatively have an affect most elements of the development, there may additionally also be positive developments in the lengthy run. The use of secondary data source is adopted for this work. This paper brings out the effects of covid-19 on SDGs achievements and a few measures to overcome it.

Key words: Sustainable Development Goals (SDGs), Pandemic, Covid-19, achievement

1. Introduction

Presently, every country in the world is struggling with the same problem which is the fight against Covid-19 (World Health Organization (WHO), 2020). As every day passes, contentions

about the world economy, political and economic orders and healthcare systems continue to be triumphant in a myriad of discussions. The price paid by the invasion of this pandemic in terms of loss of lives is painful; however, there has been worrisome on its impacts on the sustainable development prospects and the international economic system in the world. This pandemic has been said to have affected the international development targets at a very wider scale by many economic, social and political analysis, most especially on the United Nations' Sustainable Development Goals (SDGs) (Ruiz & Koutronas, 2020).

The Sustainable Development Goals contains an imaginative and prescient of peace and prosperity Nation in the world. The goals essentially acknowledge the irreconcilable trinity of equity, efficiency and sustainability (Grin, Rotmans & Schot, 2010). As a result, the pandemic has uncovered the true colour of some countries across the world and has brought into questions the very process of achieving these goals and following of this triad. Covid-19 doesn't just come in the way of the attainment of the SDGs but calls for a re-evaluation of its timeline given that the existence of this onslaught has hindered the growth of its accomplishment (WHO, 2020).

In this present time, the Covid-19 has been the defining international health disaster and the greatest challenge we are confronting after World War Two. It started in Asia (China to be precise) in the last quarter of last year and the virus has spread across every continent in the world except Antarctica (Zhang, Wang, Deng, Liang & Su, 2020).

The pandemic is a lot more than a health problem; it is also an exceptional socio-economic disaster. It stresses and put everybody in the Nations it entered on unrest; it is capable of creating devastating social, economic and political effects that can leave heartfelt and longstanding pains (WHO, 2020).

The pandemic has led to people losing jobs, businesses and incomes without knowing when things will return to normal. Small Island countries that are dependent directly or indirectly on tourism have emptied their hotels and deserted beaches due to the pandemic. The International Labour Organization suggested that over 195 million jobs could be lost. The World Bank projected \$110 billion reduction in remittances this year which could mean 800 million persons may not be able to meet their basic wants (WHO, 2020).

The two hypotheses tested in the study are:

- 1. There is no relationship between covid-19 and Sustainable Developmental Goals in Nigeria
- 2. The pandemic is not significantly related to poor implementation of SDGs in Nigeria.

The general objective is to guide SDGs policy that will minimize the effect of covid-19 in Nigeria and the specific objective is to evaluate the impacts of covid19 on SDGs in Nigeria. Within the framework of the theories of conspiracy by Mark Lynas (2020) and theory of transition by Frantzeskaki (2011) and using the method of review of contents of dailies and commentaries combined with secondary sourced data, the paper examine the activities of SDGs in Nigeria as well as the impacts of covid-19 on in Nigeria and responses of Nigerians to the pandemic.

2. Review of Related Literature

CONCEPTUAL REVIEW

Origin of Covid-19

According to the World Health Organization (WHO), (2020), the covid-19 spreads very fast to more almost all nations in the world and infecting close to 3.7 million people and killing close to 503,853. In general, corona virus is a large family of viruses that cause flu in humans.

A novel strain of the corona virus family called covid-19 was found to infect man around the last quarter of the year 2019 (Zhang, 2020). The corona viruses is said to be zoonotic (meaning they are transmitted from animals to people). According to the present indications, it was explained that the covid-19 is mainly transmitted by bats. These corona viruses inflict threats to the human respiratory organ and thus it is said that people with lung damage or respiratory problems are more vulnerable to contract the virus (Paules, Marston & Fauci, 2020).

Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs) were exposed in 2015 and they applauded as arguably the most important and inclusive set of goals ever designed for global development and certain to move the needle closer towards a wide-ranging international advancement than ever before (Tellus Institute, 2017). The goals of the SDGs includes a move to end hunger, eradicate poverty, offer quality education, decent work and economic growth, reduce inequalities and promote good health and well-being for everybody. The acceptance of the 17 SDG goals was a cover up for the Millennium Development Goals (MDGs). The goals were therefore expected to continue from where nations stopped with the MDGs. Following the submission of the SDGs Report in 2019 and the SDG Summit 2019, many activities continued as countries tracked their progress in accordance to the goals. The Nations congratulated and encouraged themselves, recalibrated or panicked depending on their individual ranks. The year 2020 was said to be the new decade of action with calls to turbo-charge the race to the end-point which is 2030 and then Covid-19 showed up. Life with this pandemic as we all know has been changed totally. There have been rigorous effects on almost every aspect of our life. In affected nations, many people are struggling to survive and even for the little nations with partially low or no direct impact, there is no way they can escape the hit that the global economy has observed as a result of covid-19 (WHO, 2020).

The Sustainable Development Goals (SDGs) are created by the United Nations and promoted as the Global Goals for Sustainable Development. They replaced the Millennium Development Goals that expired at the end of 2015. The SDGs is expected to run from 2015 to 2030. The goals are 17 and it has 169 specific targets. The Sustainable Development Goals (SDGs) are a collection of 17 international goals designed to be a pathway to achieve a better and more sustainable future for everyone. The SDGs was set up in 2015 by the United Nations General

Assembly and supposed to be achieved before the year 2030 are part of UN Resolution 70/1 in the 2030 Agenda.

In August of 2015 193 nations agreed to the following 17 goals:

- ➤ No Poverty
- Zero Hunger
- ➤ Good Health and Well-being
- Quality Education
- > Gender Equality
- > Clean Water and Sanitation
- ➤ Affordable and Clean Energy
- ➤ Decent Work and Economic Growth
- > Industry, Innovation, and Infrastructure
- Reducing Inequality
- > Sustainable Cities and Communities
- ➤ Responsible Consumption and Production
- Climate Action
- ➤ Life below Water
- ➤ Life on Land
- Peace, Justice, and Strong Institutions
- > Partnerships for the Goals

The aforementioned goals are broad based and interdependent. Each of the 17 sustainable development goals has targets which are measured with indicators. In an effort to make the SDGs successful, data on the 17 goals has been made available in an easily explained form. A variety of tools are implemented to trace and show progress towards the goals.

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FUNTIONS OF SDGs

To achieve sustainable development, three sectors are expected to come together and these are the economic, socio-political and environmental sectors in their widest horizon or sense. This requires the promotion of multidisciplinary and trans-disciplinary research across different sectors which can be difficult, particularly when major governments fail to support it. According to the UN, the target of the goals is to reach the community farthest behind. Commitments should be transformed into effective and progressive actions requiring a good perception of target populations. However, all affected groups such as children, elderly people, persons with disabilities, refugees, indigenous peoples, migrants and internally-displaced persons are addressed numerical and non-numerical data in their information.

Women and gender equality: The SDGs and widespread consensus will be stalled if policy makers, private sector executives and board members do not prioritized holistically women's empowerment and gender equality. Some organization statements such as Economic Cooperation and Development (OECD), United Nation Women (UN Women) and the World Pensions Forum (WPF) have submitted that investing in female (women and girls) have positive effects on economies and national and global development investments often exceed their initial scope.

Education and sustainable development: Education for sustainable development (ESD) is explicitly recognized in the SDGs. Global Citizenship Education (GCED) was promoted by UNESCO as a complementary approach. At the same time, it is good to note importance of ESD's on the remaining 16 SDGs. With its overall objective to develop cross-cutting sustainability competencies in students, ESD is an important contributor to all efforts to achieve the SDGs. This would enable everyone to contribute to sustainable development by promoting societal, economic and political change as well as by changing their own behavior.

Education, gender and technology: Massive Open Online Courses (MOOCs) are free open education offered by online platforms. The philosophy of MOOCs is to open up quality Higher Education to a large audience. As such, MOOCs are essential instruments to achieve Goal 4 (Ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for everyone). At the same time, MOOCs also contribute to Goal 5 because they are gender neutral and they give women and girls improved access to education.

SDG-driven investment: Capital stewardship is expected to play a crucial part in the progressive advancement of the SDG agenda: No longer absentee landlords, pension fund trustees have started to exercise more forcefully their governance prerogatives across the boardrooms of Britain, Benelux and America: coming together through the establishment of engaged pressure groups to shift the whole economic system towards sustainable investment by using the SDG framework across all asset classes.

Effects of covid19 on SDGs in Nigeria

First and foremost, the pandemic has created more isolated economics with the closure of borders and international migration. There have also been various notions that have raised suspicion among counties. All these factors aforementioned have led to the failure of multilateralism across the world. The SDG that takes all of this in and that is slowly fallen apart is number 17 which is Partnership for all the goals.

The covid-19 has extremely and severely affected SDG 3 which stands for Good Health and Well-Being. As of 26th November, 2020, the virus has caught hold of 66,974 people and has taken the lives of over 1169 individuals with 62585 recovered cases in Nigeria. Nigerians are now taken on the norms and ideas of social distancing and quarantine; it is now witnessing a heavy reliance on digital connectivity. However, the ability of not being accepted in the virtual world will lead to problems in the equity dimension of holistic development which will cause higher levels of poverty, hunger and thereby tampering with the idea of No Poverty, Zero

Hunger, Quality Education, Clean Water and Sanitation and Reduced Inequalities of the SDGs 1,

2, 4, 6 and 10 respectively.

Considering Goal 4 which is quality education, some states especially Lagos State for instance,

despite the good steps taken by the government to sustain the education of public school

students, yet lots of schools both private and public have not been able to keep up with learning

at the pace expressed by their curricula. The pandemic is not likely to be eradicated in the next

couple of months (optimistically speaking) and the overall picture of education stages lost over

the course as this pandemic is gloomy.

Taking a look at Goal 3 which is good health and well-being, there are lots of other diseases that

have been neglected because of this time. Understandably, these diseases have been relegated for

now. However, the fight against these diseases still remains critical. For instance, Goal 3

specifically mentions targets to end the epidemics of AIDS, tuberculosis, malaria and neglected

tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases by

2030. The World Health Organization recently announced its recommendation that mass

treatment campaigns for neglected tropical diseases be postponed till further notice given the

importance of social distancing as one of the three most essential measures to control the

pandemic.

The effect that the pandemic will leave on SDGs 8 and 9 that is Decent Work and Economic

Growth and Industry, Innovation and Infrastructure is fretting. Inflation has collapsed around the

globe and the global economy meets its deepest recession because of this pandemic. The

Organization for Economic Cooperation and Development (OECD) claimed that the yearly

growth in the amount of goods and services has slowed significantly since March as the

pandemic brought business activities to a halt most especially in Nigeria. Although many

services have moved into digital space but there are slump closures of traditional manufacturing

companies.

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On the other hands, reduced economic activity has led to nature's relief emphasizing on the betterment of SDGs 13, 14, and 15 which are Climate Action, Life below Water and Life on Land respectively. We're expecting to see about a 25% drop in transport for 2020 leading to a predicted 12% drop in Carbon Dioxide emissions. We have also seen the revival of many species (Jim Scheer, 2020)

This pandemic showcases an opportunity for us to act as one and take it as an impetus to achieve the SDGs. It has utterly displayed the weaknesses in our global system. As our world continues to deal with the challenges thrown by the pandemic, we cannot shift our eyes away from the achievement of the SDGs. We must seek to turn the crisis into an opportunity and ramp up necessary actions to achieve our goals. United we stand; divided we fall.

Theory of transition

Three types of transitions were pointed out by Frantzeskaki, (2011): institutional transitions, social ecological transitions and socio-technological transitions. Transitions can take place at several levels: while households and individuals can change transition to sustainability, some speak of a Great Transition and envision the advent of a new development paradigm redirecting the global trajectory towards a socially equitable, culturally enriched, and ecologically resilient planetary civilization (Tellus Institute, 2015). SDGs indeed can be seen as smaller transitions within the Great Transition's towards sustainability and true prosperity and the coming of age of humanity. Whereas a system innovation refers to transformations within specific subsystems, any transition transcends individual systems and comprises various system innovations at different scale levels and over a long period of time (Loorbach & Rotmans, 2010). This means that existing systems of structures, institutions, culture and practices are broken down and replaced by new ones. A sustainability transition generally refers to a 'radical transformation towards a sustainable society as a response to a number of persistent problems confronting contemporary modern societies' (Grin et al. 2010). Such a transformation process is 'long term,

multidimensional and fundamental' (Markard et al., 2012), paradoxically comprises radical change in incremental steps (Loorbach & Rotmans, 2010) and shifts established socio-technical systems to more sustainable modes of consumption and production. The term 'transition' is already widely accepted in the area that this paper look into in more detail: sustainable energy and climate change. The UNFCCC secretariat (2014), for example, speaks of the transition to low-emission development paths. It is argued here that the SDGs, both individually and as an integrated framework, represent transitions towards improved sustainability. The field of transition studies applies theories and methods from various disciplines to study the history, dynamics and governance of socio-technical transitions and 'system innovations' (Rotmans et al., 2001; Loorbach, 2007). 'Transition theory' embraces concepts such as co-evolution, selforganization and emergence and is intellectually rooted in three strands of science: complex systems theory (Kauffman, 1995), governance literature (Rotmans et al., 2001 and Smith et al., 2005) and innovation studies (Geels, 2005). While originally the focus was on transitions in socio-technical systems (e.g. mobility, energy, agriculture), recent developments have broadened the focus towards societal systems more generally (e.g. cities, regions, sectors). Transition studies call for inter and trans-disciplinarily, acceptance of uncertainty, adaptive governance and attention to up and downscaling between different levels in time and space as well as aggregation in specific cases and issues. The understanding of transition dynamics in social systems requires a holistic view on the interaction between human and non-human aspects (not only social, cultural, institutional and political but also economic, ecological, and technological). Guidance and governance are essential for sustainability transitions (Smith et al., 2005).

Theory of conspiracy

The more the pandemic worsen, the more world is also facing a global misinformation on the pandemic. Many conspiracy theories that behave like viruses themselves are spreading around rapidly online as covid19 does offline. Some conspiracy theories that is making wave are:

Blaming 5G: This Conspiracy theory should easily be debunked as it is biologically impossible for viruses to spread using the electromagnetic spectrum. The latter are waves/photons while the former are biological particles composed of proteins and nucleic acids. But that isn't really the point, conspiracy theories are enticing because they often link two things which at first might appear be correlated; in this case, the rapid rollout of 5G networks was taking place at the same time the pandemic hit the world. Although, the World Health Organization (WHO) points out that virus cannot travel on mobile networks and that covid-19 is spreading rapidly in many countries that do not have 5G networks. Even so, this conspiracy theory after being spread by celebrities with big social media following has led to cell-phone and smart-phone towers are being set on fire in the UK and other place with some of them being looted by hoodlums.

Bill Gates as scapegoat: Most conspiracy theories, like the viruses they resemble, constantly mutate and have several variants circulating at any one time. Many of these plots and subplots seem to involve Bill Gates, who became a new target of disinformation after gently criticizing the defunding of the World Health Organization. A recent variant of this conspiracy theory, particularly beloved by anti-vaccination activists, is the idea that the pandemic is part of a dastardly Gates-led plot to vaccinate the world's population. There is some truth in this of course because vaccinating much of the world's population may well be the only way to avoid an eventual death toll in the tens of millions. But some people don't believe vaccines work. Instead some have spread the myth that Bill Gates wants to use a vaccination program to implant digital microchips that will somehow track and control people.

The virus escaped from a Chinese lab: This one at least has the benefit of being plausible. It is true that the original epicenter of the epidemic is the Chinese city of Wuhan, also hosts a virology institute where researchers have been studying bat coronaviruses for a long time. One of these researchers, A prominent virologist called Shi Zhengli spent years collecting bat dung samples in caves and was a lead expert on the earlier SARS outbreak who was sufficiently

concerned about the prospect that she spent days frantically checking lab records to see if anything had gone wrong. She admits breathing a "sigh of relief" when genetic sequencing showed that the new coronavirus did not match any of the viruses sampled and studied in the Wuhan Institute of Virology by her team. However, the sheer coincidence of China's lead institute studying bat coronaviruses being in the same city as the origin of the covid-19 outbreak has proven too juicy for conspiracists to resist. This theory has tipped into the mainstream being reported in the newspaper, TV and radio stations and many other outlets.

COVID-19 was created as a biological weapon: According to spicier variant, Covid-19 does not only escape from a laboratory but it was intentionally created by Chinese scientists as a biowarfare weapon. According to Pew Research, nearly 3 among 10 Americans believe that Covid-19 was made in a laboratory either intentionally or accidentally. The theory that suggested that the Chinese somehow created the virus is particularly popular on the US political right and it gained mainstream coverage. This theory can be easily debunked now that there is unambiguous scientific evidence. Thanks to genetic sequencing that coronavirus has entirely natural origins as a zoonotic virus originating in bats. The Examiner has since added a correction at the top of the original piece admitting the story is probably false.

The US military imported COVID-19 into China: The Chinese government responded to the anti-China theories with a conspiracy theory of its own that seeks to turn blame back around onto the United States. This idea was spread initially by Chinese foreign ministry spokesman who tweeted "it's possible that the US military brought the virus to Wuhan". These comments, according to Voice of America news, Echoed a rumored conspiracy widely spread in China that the US military personnel had brought the virus to China during their participation in the 2019 Military World Games in Wuhan last October. For China, as the Atlantic reported, this conspiracy theory and an accompanying attempt to rename Covid-19 the USA virus was a

transparent geopolitical ploy useful for domestic propaganda but not widely believed internationally.

COVID-19 doesn't actually exist: According to professional conspiracy theorists like David Icke and Alex Jones, Covid-19 does not actually exist but is a plot by the globalist elite to take away the freedom of the people. Early weaker versions of this theory were prevalent on the political right in the notion that the novel coronavirus would not be worse than flu and later versions are now influencing anti-lockdown protests across several states in some countries. Because believers increasingly refuse to observe social distancing measures, they could directly help to spread the epidemic further in their localities and increase the resulting death rate.

COVID-19 is a plot by Big Pharma: Many conspiracy theory promoters are in reality clever actors trying to sell quack products. A plot by big pharmaceutical companies to make us sick and tired is getting people to believe that evidence-based i.e. conventional medicine is not working. Big Pharma conspiracies are a staple of anti-vaccination narratives, so it is hardly surprising that they have transmuted into the age of the coronavirus.

COVID-19 death rates are inflated: Another far-right meme is the idea that death rates of the pandemic are being inflated and therefore there is no reason to observe lockdown regulations or other social distancing measures. Prominent in promoting this myth is Dr. Annie Bukacek, whose speech warning that the death rates of the pandemic are being manipulated has been viewed by more people on YouTube. The appearance of Bukacek in a white lab coat and with a stethoscope around her neck make her appears like an authoritative medical source. By digging a little deeper a magazine had in turn said that she's actually a far-right anti-vaccination and anti-abortion activist. Her insistence that covid-19 death rates are inflated has of course no basis to this fact. More likely the current death toll is a serious under-count. Whether on any pandemic, climate change or anything else, it is important to speak out and combat online misinformation, misunderstanding and conspiracist narratives,

RESPONSE OF NIGERIA AND UN TO COVID-19

Recognizing that collaborative efforts are urgently required to respond to the multifaceted nature

of the pandemic and its unprecedented implications on the socio-economic conditions already

challenged by the complex development context, a unified United Nations strategy to amplify the

Nigeria Government's response was initiated in March 2020. The overall management of the UN

Covid-19 Response Basket Fund is led and coordinated by the Project Board with representation

from the Presidential Task Force; Federal Ministry of Health, Nigerian Centre for Disease

Control (NCDC), relevant Government departments, fund contributing donors and the UN. The

Project Board oversees the UN covid-19 Response Basket Fund supported by a Technical

Committee established to review project implementation tools. The response of Nigeria to the

pandemic reflects the support of United Nations to Nigeria in an inclusive and nationally through

a shared vision and a common strategy. Its purpose is to coordinate and align UN's efforts and

leverage partnerships with the government, development partners, foundations, and the private

sector to increase the availability, accessibility, affordability, adaptability and acceptability of

COVID-19 response interventions in Nigeria.

Coordination of partnerships and mobilization of resources for a unified, rapid and

effective response in Nigeria

UNDP continues to support the Presidential Task Force (PTF) to compile reports on UN agency

specific contributions towards the pandemic response in Nigeria to encourage coordination of

partnerships for effective resource mobilization, accountability and collaborative response to the

pandemic. As a transparency and accountability tool to enhance awareness and understanding of

ongoing efforts to mobilize resources, UNDP as a member of the PTF committee on resource

mobilization and coordination developed a public-facing resource tracking dashboard

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CONTRIBUTING DEVELOPMENT AND PRIVATE SECTOR PARTNERS AND AMOUNT IN US DOLLARS (\$) AS OF JULY, 2020

S/N	CONTRIBUTORS	AMOUNT IN USD
1	Aliko Dangote Foundation	3,889,335
2	AP Maersk	200,000
3	Bill & Melinda Gates Foundation	1,000,000
4	European Union	54,618,300
5	Government of Switzerland	400,000
6	Government of Norway	1,050,000
7	MacArthur Foundation	400,000
CONTRIBUTING UN AGENCIES		
8	Food and Agriculture Organization (FAO)	44,000
9	International Labour Organization (ILO)	25,000
10	International organization for Migration (IOM)	100,000
11	The Joint United Nations Programme on HIV/AIDS (UNAIDS)	44,000
12	United Nation Development Programme (UNDP)	1,400,000
13	United Nations Educational, Scientific and Cultural Organization (UNESCO)	30,000
14	United Nation Fund for Population Activities (UNFPA)	230,000
15	United Nations High Commissioner for Refugees (UNHCR)	50,000
16	United Nation's Children Fund (UNICEF)	150,000
17	United Nation Entity for Gender Equality (UNWOMEN)	45,000
18	World Food Programme (WFP)	100,000
	TOTAL	63,775,635

Source: Author, 2020

3. CONCLUSION

It is still early to determine how the Covid-19 pandemic will impact the progress on these goals but the situation is not looking good. People are hungry, have no food and are not able to get or earn any money due to the lockdown. In a number of the worst-hit nations like Nigeria, people are being furloughed and laid off at an alarming rate.

As the whole world is struggling to overcome this pandemic and seeks to restore global prosperity, the focus must be on addressing underlying factors through the Sustainable Development Goals. Sustainable development cannot exist without individuals: it happens with the coexistence of biodiversity conservation and development of the human society by meeting

with the various equity needs. Today, peace, justice and strong institutions is disturbed which is the view of SDG 16. Though, the governments of this nation are issuing bailout packages to revive the economies but still a huge threat lies in their way because of increasing deaths of their citizens. The challenge now is still the absence of vaccine. In view of this, Nigeria will need to boost up its economy by increasing its budget for all the pillars which with help them to achieve their SDGs as well.

Also, government officials, health and medical practitioners and experts should continue to reach out to vast audiences using platforms such as Twitter, Facebook, YouTube, live streaming and other social media platforms to disseminate relevant information and live updates. The global community should realize the urgent need to collaborate to develop a unified global policy to detect report and respond to various outbreaks especially the covid19.

REFERENCES

Adam, H. & Moodley, K. (2013). Imagined liberation: Xenophobia, citizenship and identity in South Africa, Germany and Canada. African Sun Media 4.

De-Wit, E., Doremalen, V.N, Falzarano, D. & Munster, V.J. (2016). SARS and MERS: Recent insights into emerging coronaviruses. Nat Rev Microbiology 14(8): 523-534.

Frantzeskaki, N. (2011). Dynamics of societal transitions: driving forces and feedback loops. Dissertation, Delft University of Technology.

Geels, F.W. (2005). Technological transitions and system innovations: a co-evolutionary and socio-technical analysis. Edward Elgar Publishing, Cheltenham

Grin, J., Rotmans, J. & Schot, J. (2010). Transitions to sustainable development: new directions in the study of long term transformative change. Routledge, London

Heyer, P. (2003). America under attack: a reassessment of Orson Welles' 1938 war of the worlds broadcast. Canadian Journal of Communication 28(2): 149-165.

Loorbach, D. (2007). Transition management: new mode of governance for sustainable development. International Books, Dublin

Loorbach, D. & Rotmans, J. (2010). The practice of transition management: examples and lessons from four distinct cases. Futures 42: 237–246. https://doi.org/10.1016/j.futures.2009.11.009

Markard, J., Raven, R. & Truffer, B. (2012). Sustainability transitions: an emerging field of research and its prospects. Res Policy 41:955–967. https://doi.org/10. 1016/j.respol.2012.02.013

Matthews, D.A & Clark, C. (1999). The faith factor: Proof of the healing power of prayer. Penguin Random House, New York, USA.

Mearsheimer, J.J. (2014). Can China rise peacefully? The National Interest 25(1): 1-40.

Millett, P. & Snyder, B.A. (2017). Existential risk and cost-effective bio-security. Health security 15(4): 373-383.

Paules, C.L., Marston, H.D & Fauci, A.S (2020). Coronavirus Infections-More than just the common cold. JAMA.

Rotmans, J. (2005). Societal innovation: between dream and reality lies complexity. Dissertation, Erasmus University Rotterdam

Rotmans, J. & Loorbach, D. (2010). Towards a better understanding of transitions and their governance: a systemic and reflexive approach. In: Grin J, Rotmans J, Schot J (eds) Transitions to sustainable development: new directions in the study of long term transformative change. Routledge, London, pp 105–221

Ruiz, M.A & Koutronas, E. (2020). The Networks Infection Contagious Diseases Positioning System (NICDP-System): The Case of Wuhan- COVID-19. Pp 1-14.

Smith, R.D. (2006). Responding to global infectious disease outbreaks: Lessons from SARS on the role of risk perception, communication and management. Soc Sci Med 63(12): 3113-3123. SARS (2003) World Health Organization.

Smith, A., Voss, J.P. & Grin, J. (2010). Innovation studies and sustainability transitions: the allure of the multi-level perspective and its challenges. Res Policy 39: 435–448. https://doi.org/10.1016/j.respol.2010.01.023

Tellus Institute. (2017, April 19th). Great transition initiative: towards a transformative vision and praxis. http://www.greattransition.org/about/what-is-the-great-transition.

WHO (2020). About Coronavirus? Geneva, Switzerland.

WHO (2020). Novel Coronavirus (2019-nCoV) Situation Report-3 p. 1-7.

Zhang, N., Wang, L., Deng, X., Liang, R. & Su, M. (2020). Recent advances in the detection of respiratory virus infection in humans. J Med Virol 92(4): 408-417.

UNFCCC (United Nations Framework Convention on Climate Change). (2014). ADP 2-7 agenda item 3: elements for a draft negotiating text, version 2

UNDP is the technical lead in the UN's socio-economic recovery, alongside the health response led by WHO, and the Global Humanitarian Response Plan and working under the leadership of the UN Resident Coordinators.