

World Sustainable Development Outlook 2020

CORONAVIRUS

The management of pandemic
and the impact on Agenda 2030



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Multi-Stakeholder partnership and voluntary commitment in tackling COVID-19 pandemic: NGO perspective





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Abstract

Purpose

The outbreak of COVID-19 among human populations has resulted in the death of thousands of people globally. The aim of this paper is to proffer workable solutions to curtail the spread of COVID-19.

Design/Methodology/Approach

Within a period of two months, a total of eight online webinar Zoom meetings were organised by members of the Netlink Environmental Conservation Organization with participants from across the globe.

Findings

These online discussions revealed information on preventive and precautionary measures for combating COVID-19, the efficacy of restriction orders, youth participation in curtailing the spread, and its impact across various human endeavours. An Integrated Inclusive Awareness Model (IIAM) was developed by participants as a way of facilitating information dissemination among the relevant stakeholders.

Limitations/Implications

As these were online meetings, access to the Internet was a limitation. There is a need for youth to actively participate in awareness campaigns to curtail the spread of COVID-19.

Keywords

Coronavirus, information dissemination, Netlink
Environmental Conservation Organization, youth
participation, Zoom meeting



Introduction

Coronaviruses are viruses that circulate among animals but some of them are also known to affect humans. Severe acute respiratory syndrome coronavirus (SARS CoV) and Middle East respiratory syndrome coronavirus (MERS CoV) have been identified as animal coronaviruses. Correspondingly, an acute respiratory disease, caused by a novel coronavirus (SARS-CoV-2, previously known as 2019-nCoV) was reported in Wuhan, China in December 2019 (Thomas-Ruddel et al., 2020). This supports the findings of Guo et al. (2020) that in December 2019, a cluster of pneumonia cases, caused by a newly identified β -coronavirus, was reported in Wuhan, China. Lu et al. (2020) affirmed that Chinese scientists rapidly isolated SARS-CoV-2 from a patient within a short time on 7 January 2020, and came out to genome sequencing of the SARS-CoV-2. In a related development, on 30 January 2020, the World Health Organization (WHO) officially declared the COVID-19 epidemic as a public health emergency of international concern (Guo et al., 2020). Furthermore, as of 1 March 2020, a total of 79,968 cases of COVID-19 had been confirmed in mainland China including 2,873 deaths (WHO, 2020a). By mid-April 2020, the outbreak had affected more than 210 countries across all regions, and reached over 2.4 million confirmed cases, of which 16% have been considered severe and of which over 166,264 cases have resulted in death, mostly among adults aged between 25-89 years of age. In the European region, there were about 880,106 confirmed cases and 74,237 deaths, in the Americas, there were about 573,940 confirmed cases with 21,531 deaths. The Western Pacific region had 120,116 confirmed cases with 4,058 deaths. The Eastern Mediterranean region had 95,945 confirmed with 4,943 deaths. The South-East Asia region recorded 16,041 confirmed cases with 728 deaths, while the African region had 9,728 confirmed cases with 444 deaths (ECDC, 2020a; WHO, 2020b).

There is currently limited information on COVID-19 as it is an outbreak of a new disease with emergency services in full response mode. Symptoms of infection include fever, cough, fatigue, sputum (saliva and mucus), sore throat, chest discomfort, shortness of breath, and headaches. WHO identifies an estimated incubation period of up to 14 days with

a mean average of 5.5 to 6 days. As well as body aches to mild respiratory symptoms, most develop pneumonia and approximately 10-20% develop diarrhoea. No curative treatment or vaccine exists for COVID-19. Infection prevention and control measures are critical to prevent all respiratory diseases, especially in healthcare facilities. Transmission prevention recommendations include guidance for contact, airborne, and whenever applicable, droplet precautions. These include a higher level of PPE for frontline workers, including eye protection, and the expanded use of respirators.

Kapata et al. (2020) reported that many African countries have already introduced screening of arrivals for COVID-19 at airports and at some seaports. This was a result of a meeting with public health emergency responders from African countries in Senegal in early February 2020; they used the meeting to equip themselves with the latest advances on COVID-19 diagnostics, prevention and healthcare knowledge. By the end of April 2020, over 20 African nations had been able to test for COVID-19, and several African countries had identified isolation and quarantine centres. In addition, Nigeria, Kenya, Ethiopia, Ivory Coast, Ghana, Uganda and Botswana had rapidly dealt with suspected cases by carrying out laboratory tests, and in some cases, placing them in quarantine while laboratory tests were performed.

Nigeria was one of the first countries to recognise the risk and start planning a response for COVID-19. In a massive effort of national coordination, a multi-sectoral National Coronavirus Preparedness Group was established by Nigeria CDC on 7 January 2020, one week after China first reported cases and three weeks before WHO declared the disease to be of international concern. The country has also established diagnostic capacity for COVID-19 in three laboratories within the country in one month. Nigeria CDC has established a national team that meets daily to assess the risk coronavirus poses to the nation and review its response to that risk (Kapata et al., 2020).

Methodology

Since the outbreak of the COVID-19 pandemic was reported in some countries across the world, members of Netlink Environmental Conservation Organization (NECOR), Environmental Conservation Club (ECC), and Environmental Conservation Volunteers (ECV) hosted a series of webinar Zoom meetings with a view to enabling their members and other participants from the public to express their views on pertinent issues surrounding this epidemic in their various communities. A total of eight Zoom meetings were hosted consecutively over a period of two months (ID: 624-309-462; 301-093-114; 654-395-651; 306-476-942; 306-476-942; 515-148-137; 710-7711-0882; 748-2758-5915). The meetings were moderated by the President of NECOR who is also the coordinator of ECC and ECV. Participants were drawn from various parts of the world with diverse backgrounds, professions and disciplines. The meetings commenced at 1200 noon (UTC) and lasted between 1 hour and 2 hours depending on the morale of the participants.



Results

- The topics of discussion were categorised into distinct areas, including:
- a brief introduction on coronaviruses and symptoms;
- preventive and trado-medical precautionary methods of curtailing the spread of COVID-19;
- current information on the prevalence of COVID-19 across home countries of participants;
- review of perceptions on preventive and precautionary measures;
- appraisal of the impact of COVID-19 across various human endeavours;
- proposed Integrated and Inclusive Awareness Model (IIAM);
- efficacy of restriction order in curtailing the spread of COVID-19; and
- youth participation in combating the spread of COVID-19.



Brief introduction on coronaviruses and symptoms

As this was the first meeting, the moderator used the opportunity to educate the participants on coronaviruses and symptoms. Coronaviruses are large family of viruses that can be categorised into two human coronaviruses:

- the most common coronaviruses, typically associated with mild illnesses, and similar to the common cold; and
- animal coronaviruses that cause illness in animals and can infect people.

Two of the animal coronaviruses that have been identified include Severe Respiratory Syndrome Coronavirus (SARS CoV), and Middle East respiratory syndrome coronavirus (MERS CoV). COVID-19 is a new coronavirus that is pandemic and has not been previously identified in humans. Symptoms of COVID-19 infection included cough, fever, difficulty breathing and pneumonia in both lungs.

Preventive and trado-medical precautionary methods of curtailing the spread of COVID-19

Three preventive strategies for curtailing the spread of COVID-19 were identified by the participants as highlighted below:

- 1. personal hygiene:** regular washing of hands; minimising close human contact or maintaining social distancing; abstaining from public and social gatherings; avoid touching of face, picking of nose or eating nails; ensure wearing of clean clothes, and washing and cleaning of legs before coming from outside;
- 2. environmental hygiene:** our surroundings should be kept clean, use disinfectant and affordable local sanitisers in your home. To this effect readily affordable local sanitisers and disinfectant suggested include the use of dry oregano leaves, bay leaves, mint leaves, eucalyptus and onion. The onion should be rubbed on the palms in the absence of sanitisers, you can eat slices of fresh onion, and you can cut into two and place at the corner of your room to serve as an antibacterial or antiviral. Mint leaves have fresh mint and an aroma that can guard against bacteria. Peppermint oil is like a natural pesticide; the smell discourages rats, aids breathing and reduces effects caused by nausea;
- 3. food hygiene:** ensure a good selection of food commodities in the market, ensure a proper and adequate cooking process or method for food; regular drinking of warm water, take hot pepper soup, ensure eating of hot food or make sure you warm the food before eating, do not eat cold food.

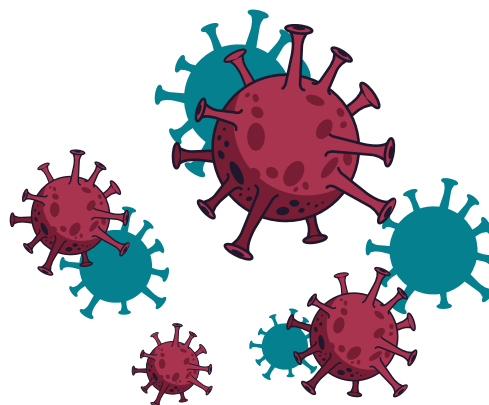
The trado-medical precautionary methods as suggested to curb the spread of the pandemic include:

1. boiled leaves of *Morinda lucida* (local yoruba name Oruwo) and *Azardirachta indica* (local name Dongoyaro leaves) have been suggested as possible alternatives, while *Mormodica Chorantia* (local Yoruba name: ejinrin) could serve as antibiotics;
2. regular consumption of food that is alkaline in nature could equally serve as precautionary measure. Therefore, consumption of fruit such as tangerine, orange, lemon, pineapple, mango, etc., will boost the vitamin levels of humans.



Current information on the prevalence of COVID-19 across home countries of participants

In another discussion, participants were asked to provide updated information on COVID-19 in their respective communities. The statistics and facts provided by the participants are validated with the information collected from credible organisations, such as the World Health Organization (WHO), and other designated health institutions, such as the National Council on Disease Control (NCDC). The participants demonstrated capacities to monitor the trend and the spread of the virus in their respective localities.



Review of perceptions on precautionary and preventive measures



Following the precautionary and preventive measures suggested by members in the previous forum, a review of their perceptions on the measures was undertaken. A greater percentage of the participants (57%) revealed that they observed personal hygiene, this was followed by those that observed environmental measures (33%), and the least 10% were those that observed food hygiene. They agreed that the outcome of their perceptions was founded on recent practices largely due to restriction and lockdown orders declared by governments in several nations. However, a large percentage (82%) expressed dissatisfaction that the orders had denied many people access to essential needs, while the rest (18%) declared that they are indifferent to the orders. However, these assertions are contrary to what happened in countries such as Sweden and South Korea where restriction orders or lockdown had yet to be totally enforced. It is hoped that the spread of this pandemic will soon be curtailed. A review of the precautionary measures revealed that in addition to the earlier suggestions, participants mentioned that regular drinking of a mixture of garlic or ground ginger soaked in water is another precautionary measure being put in place during the pandemic. They explained that the dosage is intermittently dependent on the level of concentration of this mixture.

Appraisal of the impact of COVID-19 outbreak across various human endeavours

There is no doubt that COVID-19 has impacted several economic, religious, social and political activities all around the globe. Some notable impacts stated by the members are:

Environmental Impact

- The restriction orders have had a positive impact on biodiversity conservation and other forms of natural resources due to low consumption, harvesting, exploration and exploitation of these resources;
- There is also low emission of carbon as a result of restrictions on vehicular movement on roads, in the air and at sea. This is a mitigation measure that the world has found difficult to achieve in the past decades.

Tourism

Low customer patronage has been observed in hospitality sectors, especially in countries that depend on the tourism industry as a major source of government revenue. Similarly, shopping in restaurants, supermarkets and malls has witnessed a drastic reduction.

Agriculture

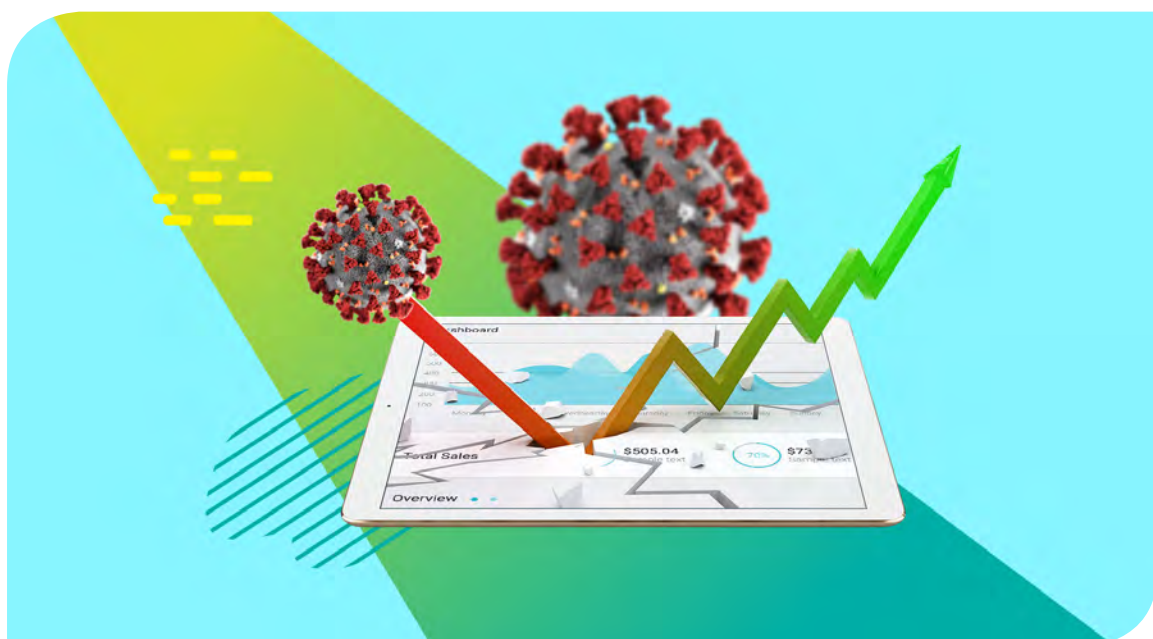
There is a danger that food will become scarce in the near future, except if governments can include farmers on the list of essential workers that are not restricted. Members predict food scarcity based on the fact that planting seasons of some farm produce might be altered, a situation that might lead to low yields and output in the near future.

Health

Members observed that there is increasing demand for health personnel to combat the spread of the virus in some countries like the USA. There is also increasing demand for health facilities to cater for patients. However, while these are lacking in some countries, especially in Africa, it is inadequate in some other nations. Members commended the philanthropic gestures of some individuals, groups, corporate organisations, and nations towards alleviating hardship, and in the provision of essential facilities to curb the COVID-19 pandemic. Furthermore, members went on to express the need for the money and other donations received during the period to be judiciously utilised for the purpose for which they are meant.

Education

There is possibility of gaps in research and transfer of knowledge as a result of prolonged holidays, and closures of schools, research laboratories, etc.



Proposed Integrated and Inclusive Awareness Model (IIAM)

In view of the growing spread of COVID-19, it has been declared as the worst disease ever in the history of humanity. This assertion gives credence to WHO's declaration that COVID-19 is an "Emergency Disease", with about 1.4 million infections, 83,000 deaths and more than 300,000 recovered victims worldwide, as at 8 April 2020. The participants hereby conversed that the level of awareness on preventive and precautionary measures to address the COVID-19 pandemic should be intensified. These numbers called for an

aggressive integrated and inclusive sensitisation and awareness campaign, especially among the most vulnerable people at the grassroots level. Therefore, collaboration with stakeholders and donor partners is a priority for the initiative.

Consequently, the proposed IIAM will facilitate interaction with relevant actors with the determination to provide the world with the latest information on precautionary, preventive and awareness strategies.

To sum up, the key variables proposed for IIAM are:

- a house-to-house street campaign: the executive of the landlord's association/estate administrators, community heads, and local government officials should be at the forefront of this campaign. A demonstration of this was upheld in view of the ongoing lockdown on social gatherings with restrictions being observed in some countries;
- another component of IIAM is the application of mass media, the use of radio and television in disseminating messages in the form slogans in reaching communities at the grassroots level, especially where there is little or no access to print media and Internet connectivity. Indigenous knowledge and local language should be used as a medium of communication;
- the above should also be complemented with communication through social media platforms such as Facebook, WhatsApp, Twitter, Instagram, etc., since the majority of people at home are users of these services. In the light of this, NECOR has already designed electronic fliers to be sent to millions of people with a view of advising them of the symptoms and preventive measures to curb the spread of COVID-19.



Efficacy of restriction orders in curtailing the spread of COVID-19

In retrospect thinking on the spread of COVID-19 that has climaxed to over 2.6 million infections, 185,000 deaths with 720,000 people recovered worldwide, emphasis was placed on the efficacy of restriction orders being enforced across some countries as a measure to curb the spread of COVID-19. Although 54% of the participants acknowledged that this measure is effective in some countries, others (46%) opined that this has begun to impact the social and economic lives of the people, especially those in developing countries. The participants expressed that the socio-economic impact of the restrictions seems to create unbearable hardship on the populace. Viewing this from the Africa context, restriction orders have largely and gradually eroded the culture of the people epitomised by socialising, visitation, town hall meetings, etc. The number of reported deaths as a result of violence that erupted between the populace and law enforcement in maintaining social distancing and restrictions on public gatherings is outrageous. Ann Waithera, a Human Resource expert from Kenya, expressed fear that if the pandemic should continue with attendant lockdown orders, certain pressure could be placed on the community, such as increasing unemployment rate, downsizing of the workforce, cut in wages and salaries to mention a few, as seen in several developed countries. The participants expressed fear that there are possibilities that the World might experience economic recession. According to mass media reports of 23 April 2020, in the USA, 4.4 million people have filed jobless claims making a total of 26.4 million within a period of 5 weeks. This unprecedented rising unemployment rate in the USA has wiped out 10 years' of job in 5 weeks. This situation might have been worse in some countries in Africa, especially where unemployment is prevalent. The dwindling oil price at the global market will definitely have a ripple effect in a monolithic structured economy that depends solely on oil as a major source of revenue.

The participants agreed that there is a need to fashion a flexible approach that will compensate for social cohesion, interaction and booming economic activities. To this end, the participants

have proposed alternatives to restriction orders, including:

1. organised short term paramilitary training on crisis, grievance and conflict redress mechanisms;
2. the war against COVID-19 should be addressed from an environmental perspective, therefore environmental experts should be deployed to complement the efforts of public health personnel in disseminating environmental education rather than enforcement through armed intervention;
3. similarly, conservationists should work hand-in-hand with medical experts considering the fact that COVID-19 is a zoonotic disease;
4. diversification of the economy with priority on developing the agricultural sector for food security should be intensified;
5. a COVID-19 test, especially at the community and institution levels, should be reinforced.

The meeting came to a close with the hope of reconvening the following week.



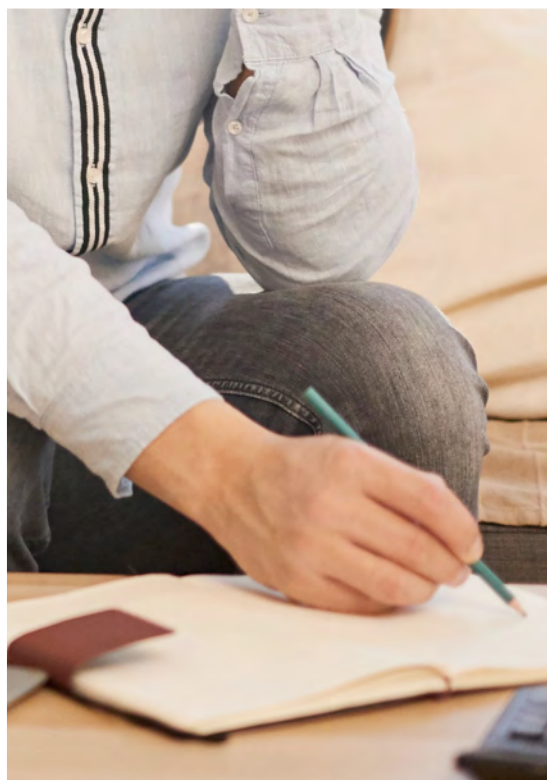
Youth participation in combating the spread of COVID-19

With the growing trend in the spread of COVID-19, NECOR hosted yet another Zoom meeting to evaluate the levels of participation of the youth in curtailing the spread of the disease. All the participants opined that children and young adults may not be as likely to become severely ill or die from COVID-19 as older adults, however, they have roles to play in curtailing the spread of this coronavirus and keeping those that are vulnerable from becoming infected.

Their assertions are based on the outcome of the recent study in the USA on COVID-19 cases published in the Morbidity and Mortality weekly report. This stated that older people recorded the highest rate of hospitalisation and death compared to those in the age range of between 0-19 and 20-44.

In the light of this premise, the participants suggested the following areas that youths can play immeasurable roles in curtailing the spread of this disease:

- youths should engage in an aggressive awareness campaign on the COVID-19 pandemic on social media since a good number of them have access to the Internet or participate in various social media platforms;
- due to the lockdown and restriction orders in some countries, youths should engage in community and door-to-door neighbourhood sensitisation on the pandemic;
- they should work as volunteers in the distribution of palliative, relief materials and take part in fumigation exercises;
- they should distance themselves from activities that can foster social gatherings, such as playing football, parties and hangouts;
- they should use the lockdown to develop their digital and online skills on working from home to create jobs. This also forms part of the submission of one of the participants, a Professor of fish nutrition that since a vaccine for the cure of COVID-19 is yet to be discovered, youths, especially in rural areas, should advance their knowledge on ethnobotany as preventive and precautionary measures.



Discussion

The outcome of the brief introduction on coronaviruses as documented during the Zoom meeting is in line with the findings of Thomas-Ruddel et al. (2020), that COVID-19 is a respiratory disease caused by a novel coronavirus; two previously reported coronaviruses include SARS-CoV-2 and Middle East Respiratory Syndrome (MERS). This follows the submission of WHO best practices for the naming of new human infectious diseases; this was developed following consultation and collaboration with the World Organisation for Animal Health (OIE) and the Food and Agriculture Organization of the United Nations (FAO) (WHO, 2020e). The symptoms of COVID-19 as described by the participants are in accordance with the Center for Disease Control and Prevention (CDCP, 2020),

Preventive measures are categorised into three areas by the participants as a summary of simple measures for protecting oneself and others from the spread of COVID-19. These preventive measures can also be considered as modified forms of the WHO's interim guidelines (WHO, Interim Guidelines, 2007). These interim guidelines include instructions on the use of personal protection (e.g., masks, gloves), environmental controls (e.g., cleaning and disinfection, ventilation, waste management), and other strategies (e.g., hand-washing, cough etiquette, distancing of patients) to reduce the risk of exposure.

As suggested by the participants, precautionary measures are actions put in place to build their immunity against COVID-19; this has been effective as it was established that no case of infection has been recorded among the participants. According to the participants, precautionary measures are practiced if there is any indication of COVID-19 symptoms characterise as fever, or high rise in temperature, as listed right from the inception of the meetings. Precautionary measures are regarded as home therapy grounded in indigenous knowledge systems on treating ailments such as malaria, typhoid fever, pneumonia, etc. (Oladeji and Agbelusi, 2018). This is in line with the Diagnosis and Treatment of Pneumonia Caused by COVID-19

(updated to version 6) issued by the National Health Commission of the People's Republic of China (2020); this states that, since there is a lack of effective antiviral therapy against COVID-19, current treatment is based on symptomatic and respiratory support. Similarly, the Nigeria Centre for Disease Control (NCDC, 2020) recommended control measures as guidelines intended for all healthcare workers (HCWs), the facility management team and Infection Prevention and Control (IPC) teams at all levels of healthcare in Nigeria. Xu et al. (2020) stated that clinical and pathological findings on severe cases of COVID-19 provided new insights into the pathogenesis of SARS-CoV-2-related pneumonia and might help physicians to formulate a timely therapeutic strategy for similar severely affected patients and reduce mortality.

Afterward, an updated report provided by the participants stated that COVID-19 was prevalent across their home countries; this was validated and confirmed with available situation reports from local and international health agencies (WHO, 2020f; NCDC, 2020; EC DP C, 2020; CDC, 2020). The information is supported by current literature; for example, Holshue et al. (2020) reported the first case of COVID-19 in the United States and the first two cases of 2019nCoV in Italy. Where they come from was documented in literature (Giovanetti et al., 2020).

The proposed Integrated and Inclusive Awareness Model (IIAM) is aimed at increasing the level of awareness of COVID-19 among the populace through the involvement of relevant stakeholders, especially at the grassroot levels. WHO (2020g) stressed that awareness-raising in the population and risk communication can be accomplished through a combination of public health measures, such as rapid identification, diagnosis and management of the cases, identification and follow-up of the contacts, infection prevention and control in health care settings, and implementation of health measures for travellers. CDC (2020) further noted that there is need to integrate relevant stakeholders to achieve a regular and effective awareness campaign, communication between

a safe and sustainable supply of substances of human origin (SoHO) establishments, NCA, national health authorities, ECDC and the European Commission. This is essential for facilitating an adequate and proportional response to the COVID-19 outbreak at local, national and EU/EEA level. Moreover, CDC (2020) opined that the alert platforms hosted by the European Commission for communication between Member States' SoHO authorities, Rapid Alert Blood (RAB) and Rapid Alert Tissues and Cells (RATC) platforms may be used for communication between NCAs, the European Commission and ECDC in order to share data on measures implemented and difficulties with supply of substances of human origin (ECDC, 2020b). The IIAM, developed by the participants at the Zoom meeting, will facilitate communication, information dissemination and raising the consciousness of the people, especially users on social media platforms such as WhatsApp, Facebook, Twitter, and Instagram since the information could be easily posted and shared.



Efficacy of restriction order in curtailing the spread of COVID-19

In a bid to find a lasting solution to the spread of COVID-19, various governments in nations across the World enforced restriction orders. These orders were brought to the attention of participants at the online Zoom meetings. This idea was in line with international organisations, such as WHO, and used as a means of monitoring and responding to the COVID -19 pandemic through online question and answer platforms (WHO, 2020h). There are indications that restriction orders were beginning to have a negative impact on social and economic development across the world. This supports the findings of Nicola et al. (2020) on the socio-economic implications of the COVID-19 pandemic. The authors opined that the outbreak of COVID-19 has had a detrimental effect on global healthcare systems with a ripple effect on every aspect of human life.

The participants at the Zoom meetings appraised the impact of COVID-19 outbreaks on five major sectors of human endeavour including agriculture, tourism, environment, education, and health. They observed that the outbreak had affected these sectors. It would continue to do so unless certain recommended steps were taken. Bhosale (2020) reported that the ability of agriculture to sustain

itself and nations' economy had been affected by the outbreak of COVID-19, and with indications that there is a global crash in demand for food from hotels and restaurants, there is a drop of 20% in the price of agricultural commodities. Likewise, Bomey (2020) described the manner in which the hospitality and travel industries have been most hard-hit, with workers on wages facing potential overwhelming hardships in the US. Bomey (2020) went further to give a vivid illustration based on events at Marriott International (an American based hospitality chain with approximately 174,000 employees), who were poised to place tens of thousands of workers on furlough. UNESCO (2020) noted that the COVID-19 pandemic had also affected all levels of the education system from pre-school to tertiary education in different countries, resulting in changes in educational policies.

The meeting participants clamoured for youth participation in information dissemination as a way of raising levels of awareness and consciousness of the populace on the symptoms, prevention and precautionary measures of curtailing the spread of COVID-19.



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