

COVID -19 AND SOCIAL DISTANCING MEASURE: THE GREEN ZONE MODEL, ITS PRACTICABILITY, PROSPECTS, AND CHALLENGES IN NIGERIA

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Abstract

Covid -19 or corona virus no doubt has contagious effect on socio-economic and health aspect of human life. The negative impact of the pandemic has necessitated the need for social distancing rule as a means to reduce the spread of the virus on the populace. The social distancing rule has been adopted partially or in full by countries depending on the severity of the virus. Many countries have seen the effect of the social distancing rule in flattening the curve to a large extent, however, the social distancing rule cannot be imposed for too long due to its devastating impact on social interaction and economy. Consequently, some studies have introduced the Green model as a way to ease the social distancing rule and bring the economy and social interaction back to normal as it was before the pandemic. In view of this, this study examines the green model, its application, prospects, and challenges within the Nigeria context and gives some policy recommendations.

Introduction

It is no news that Covid 19 has inflicted serious challenges on economic, social, and political aspect of humans lives. Covid 19 pandemic also known as corona virus initially started in Wuhan in one of the provinces in China - Hubei and since its outbreak it has spread exponentially to other countries of the world.

The continuous spreading of the virus across the globe with no known treatment up till the present moment has thus led to the adoption of some measures to curb the spread of the virus, such measures are: washing of the hands, covering of the mouth when coughing, staying at home to maintain social distancing. Nevertheless, among these measures many countries have focused more attention on social distancing rule. The social distancing has been sighted as an effective measure in flattening the curve (WHO, 2020). However, social distancing has its own negative effect, because of it impacts on social, political and economic aspect of the populace. In view of this, social distancing cannot be applied for a long period because of its adverse effect. This has motivated some countries to agitate for the relaxation of the social distancing rule or even eradicate it completely if possible.

The relaxation of the social distancing rule has brought about rise in new cases of the virus in some countries such as Germany, Australia, South Africa Indian, etc. In view of this, recently, some economists and mathematicians that specialize in random modelling and uncertain situations have suggested the use of the Green Zone as a way to ease the social distancing rule.

Nigeria as a country inflicted by the virus is also affected by the social distancing which initially has led to total lock down and gradual easing of the lock down and this has shown greater impact on economic and social lives of the populace. As the gradual easing of the lockdown and the total opening up of the economy to social and economic activities could lead to spike in the rate of infection, and going back to lockdown may not be feasible because of the impact on the economy. There is need to look at a medium (green zone) of ensuring safety of lives and at the same time making sure that the economy is not negatively affected.

This paper therefore, examines the green Zone model, its application, prospects and challenges in the Nigeria context. The paper is therefore organized as such: following the introduction, Section 2 of the paper explains the concept of the green zone model and the conceptual framework for Covid -19, Social Distancing, and Green Model, Section 3 identifies some prospects in the application of the green zone model

and challenges its application can cause in a country like Nigeria. And finally, Section 4 gives the conclusion and some recommendations.

The Green Zone Model

The Green zone model proposes that people should be allowed to move within their disconnected areas/zones such that their socio-economic activities will be done within the zones. This method was practiced in Wuhan province in China. The procedure will reduce connection among the different zones thus, reduce the spread of the Virus and also help to curtail the spread of the virus from one area to another and hence bring activities back to normal in the area.

Social distancing involves the division of the population into disconnected sub-network, so that among the disconnected network, there will be limited mobility. Unlike the situation where people could stay some few kilometers apart called radius movement and still share some public amenities together such as supermarket, filling stations etc., this sharing of public amenities could make the aim of the social distancing rule not achievable.

The diagram below depicts the green model. In this model, two zones are identified: red zone and green zone. Red zone signifies be the zone with high number of the virus and here restriction in movement will be imposed, while the green zone is the zone with low cases that is manageable or zero cases of the virus. In the green zone normal social and economic interaction can take place. The potential green zone is the zone that transits from the red zone and ready to transit into the green zone. After sometime the potential green zone will converge into the green zone and make the green zone to be larger. However, it is possible for some few cases to be discovered after sometime in the larger green zone this will lead to movement back to the red zone.

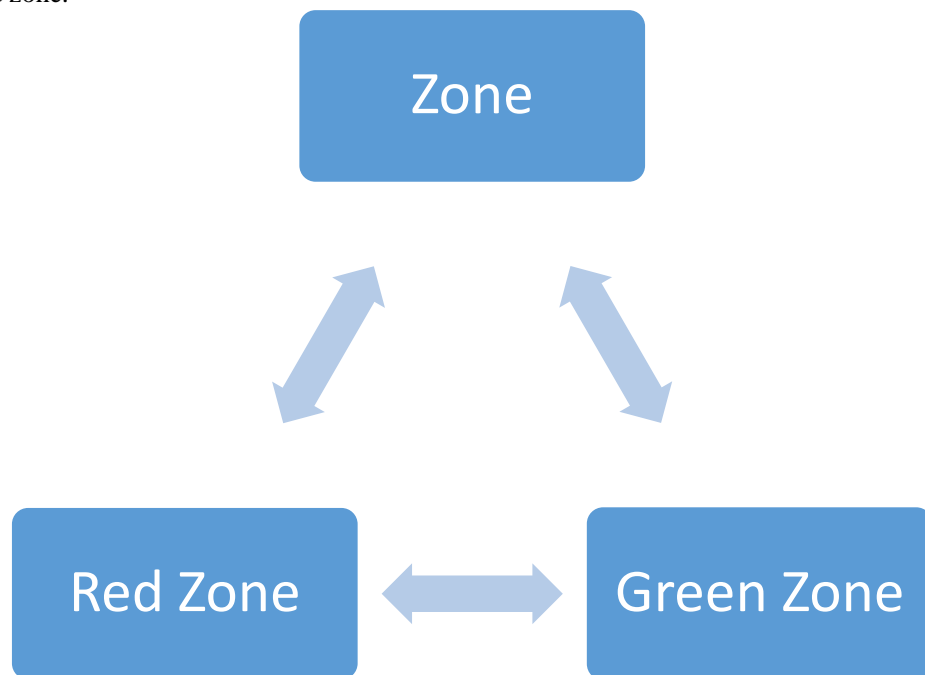


Fig.1: Green Zone Model

The green zone model, however, proposes gradual exit from the social distancing rule by identify those zones that are not infected by the Covid –19 or those that have been affected but treatment has been done and people in the zone are free from the virus. The model involves imposing limitation in terms of activities to high risk groups and easing limitations to low risk groups.

Green Zone procedures involve the dividing of the geographical area into zones and each zones having the same or similar characteristics e.g. same economic activities with some areas tagged Red, while

some are tagged Green, depending on the status of the pandemic in the zone. Situation in the red zone will be similar to lock down as social distancing will be imposed. Individual will only be able to move out of the red zone with certification (Movement Permit Certificate) as in the case of people with essential activities/services, and health clearance. However, for the Green zone, there will be free movement within the zone and normal activities will be done.

The first procedure in the model is the identification of less risky zones, where there is certain level of hygiene, growth rate of the disease is low, zero incident of the virus or minimal, and the future risk is controllable this is called the Green Zone. The second procedure is to gradually join the identified green zones from the Red Zone this involves the bringing of the green zone together when it is safe to do so and this will make the green zone to be large. Therefore, the identified red zone will be separated from the identified green zone.

The determination of whether red zone will transit to green zone would be determined through randomized trial as proposed by Paul Pomer an Economics and a Nobel Laureate. According to Pomer. a zone is referred to as green when some individual within the zone have been selected through randomization and they are free from covid -19, While those that are not free from the virus are tagged red zone Also, with time some red zone that have the potential of converging into green zone will be identified through randomize selection of individual within the zone and once they are free, the zone will become green zone. As time goes on, this will make the green zone to be larger and larger and people in this zone can share the same economic and social activities

It should however be noted that, testing and the zoning of the area may not be perfect since all the individuals in the area will not be tested (as randomized selection is conducted) it is possible to have some that could be affected by the virus at a later time or some could be asymptomatic. This could lead to the loss of the green labelling of the whole area and the whole process start all over again. That is, it is possible for some few cases to be discovered after sometime in the larger green zone this will lead to movement back to the red zone. However, with efficient management of the situation things could bounce back to normal.

Unlike the radius of movement practice in France that involves movement of people within certain kilometers. Green zoning model entails the movement of people within disconnected places e.g. area, region, neighborhood, town, state or country as it is done in China (Wuhan). The zoning issue is important as restriction of movement cannot be permanent or last for too long, because people need to move out for basic needs, social needs, and economic needs. Green zoning is believed would bring the lives of the people back to normal as it was before the spread of the pandemic.

Conceptual Framework for Covid -19, Social Distancing, and Green Model

The diagram below shows the conceptual frame work for the Covid -19, Social Distancing, and Zoning Model. From the diagram the outbreak of covid 19 pandemic would bring about health hazards which could lead to threat to lives and this would result in the introduction of some measures to curb the spread of the virus, part of such measures is the social distancing which would impose some restrictions among individuals in a place. The social distancing rule however cannot be maintained for too long due to the negative impact on socio and economic activities; therefore, zoning could be put in place as a way to bring social and economic activities back to normal. The zoning will entail the division of the area into Green and Red zone. The green zone is the area that is free of the virus and normal activities will be going on because no restriction is imposed while the red zone will be the area with the virus and normal activities will not to take place due to the imposition of some restrictions. As times goes on it is possible for the red zone to turn into green zone if restrictions are effectively managed. Also, the green zone can turn into the red zone if some individuals are asymptotic or when randomization is carried out as this test will only be done on some randomly selected individuals to detect their freedom from the virus but among those not selected some could be asymptotic and this would damage the green zone and make the zone to reverse back to the red zone. However, if the cases are proactively treated the green zone will be achieved again.

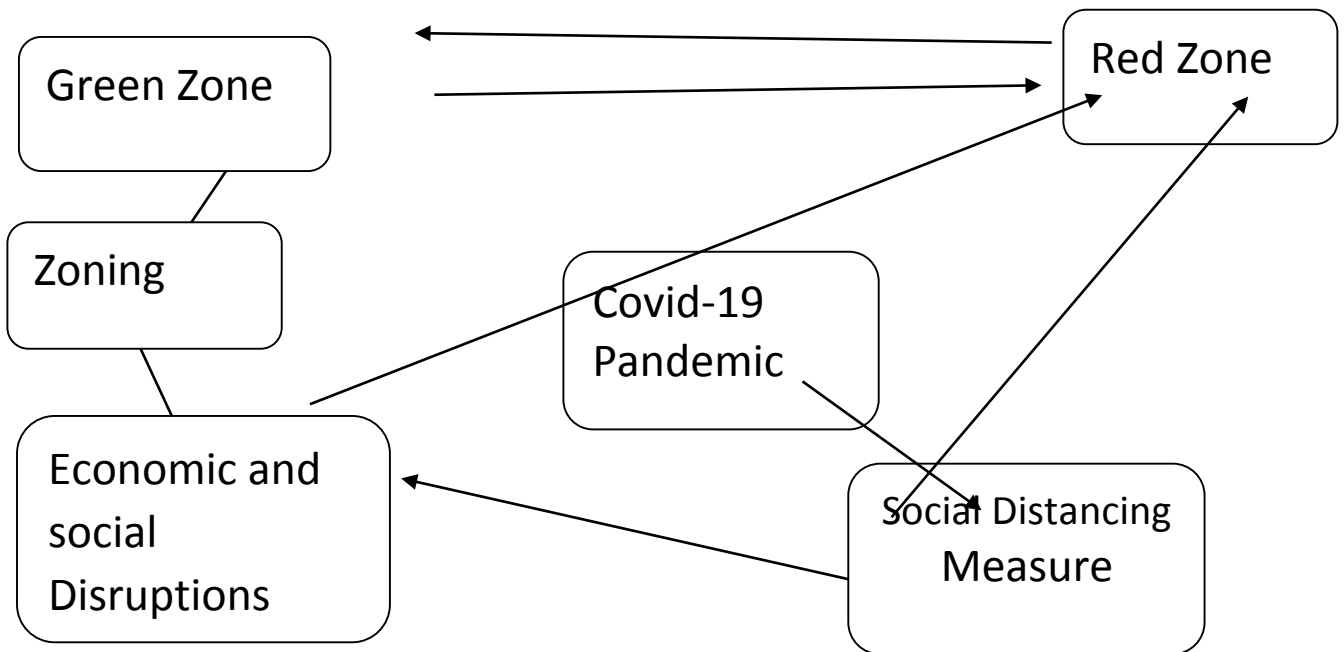


Fig2: Conceptual Framework for Covid -19, Social Distancing, and Zoning Model

Prospect in Green Zone Model

- a) It will help to prevent job loss as some economic activities will be going on in some area not affected by the virus (green zone)
- b) It will help the economy to rebound within the shortest time possible because the lock down will be partial
- c) It will reduce the cost spend during the pandemic as the government/authority will not need to focus on all the geographical setting as concentration will only be done on the areas affected by the virus.
- d) It will lead to effective and efficient management of the virus as the stake holders will only have to focus on those areas that are affected.
- e) It will help to prevent total shut down of the economy as some part of the economy will still continue with their socio-economic activities (Barton & Pradelski, 2020)

Challenges in the Green Zone Model

The applicability of the green zone in Nigeria will help to ease the restriction place on economic and social activities in Nigeria. However, Nigeria due to its local setting where social amenities and infrastructure facilities are not effectively and inclusively provided in areas the study realized that the application of green zone may face some challenges or may not even be feasible.

The following are some of the challenges that the application of green zone in Nigeria could face and these are:

- a) the unorganized setting of the environment.
- b) inadequate inclusive social amenities and this could hinder the effectiveness of green zoning system. For instance, in Nigeria, in most of the settings amenities and facilities are not inclusively and adequately provided even in Lagos that is the business hub of the country and with its urban setting, it is still difficult to find a region or area with adequate social amenities such as hospital,

schools, library, malls concentrated in an area, which could help the resident to limit their commuting within their area.

- c) ineffective laws and regulations
- d) bribery and corruption
- e) Lack of well-planned geographical setting
- f) Inadequate health care facilities
- g) Lack of discipline among the citizens

Conclusion

As social distancing cannot be exercised for too long or permanently because of the social and economic implication. The green zone may serve as a way of mitigating the effect of social distancing rule and bringing economic and social activities to normal. This can be achieved if effective measures are put in place, availability of organized setting with discipline citizen and minimal corruption so that laws and regulation can be effectively implemented.

Recommendation

Covid 19 has helped to expose some systemic failure in Nigeria ranging from the geographical setting, human attitude, dilapidated social amenities, uneven social amenities, corrupt practices, weak laws and regulation among others. In view of these abnormalities in the system, the study recommends that

- f) overhauling of the setting of the country so that the geographical settings can be well planned.
- g) Inclusive social amenities need to be provided.
- h) Effective laws and regulations.
- i) Disciplined citizens are needed.

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