Statistical analysis of exacerbated food insecurity in East Africa as a result of COVID-19 and Desert Locusts (2020).

This is a statistical analysis of the IPC food security phase classification, dessert locusts and COVID-19 in African countries (IPC, 2020). This statistical paper was chosen in order to analyse the potential exacerbation of food insecurity in African countries, specifically Somalia Sudan, Kenya and Ethiopia. This paper will utilise the IPC statistics on food insecurity during the period of COVID-19 to argue that food insecurity in the East African and Horn of Africa regions is at an all-time high as a result of increased difficulty with regards to the pandemic as well as the persisting dessert locusts. This paper will firstly outline the IPC research and statistics showing what these statistics indicate in favour of the general argument of this paper and then will compare to what extent these findings are consistent with other statistical findings on the issue.

IPC food insecurity phase classification (2020); what the research shows:

The IPC is an accredited source for statistics on integrated food security phase classification. The source is a database which produces phases from one (being the least) to five (being the most) based on a range of statistics and gathered data to calculate the severity of food insecurity in regions (IPC, 2021). This source is taken to outline the exacerbation of an already fragile situation in East Africa and the horn of Africa with regards to acute malnutrition as a result of a range of factors such as conflict in certain regions resulting in mass migration and the existence of diseases. This paper will thus use the database to shed light on the issue of malnutrition and food insecurity across East Africa which has been heightened as a result of COVID-

19 and the dessert locusts. This statistical analysis, it is hoped will encourage academics and policy makers to do as much as they can to highlight the exacerbation of an already fragile situation due to the impact of contemporary issues, most notably, the pandemic.

While the source is an accredited one world-wide and thus reliable in the sense of providing accurate information, it may be argued that the sample utilised as East Africa and the Horn of Africa is simply too wide a sample to rely on. This could potentially hinder the reliability of the source as it could mean that the statistics produced are too wide and not specific enough for each region. Hence it might be argued that it would be preferable that the paper had focused specifically on one country or one of the two regions instead. However, the source has gotten around this difficulty by generalising but also then using specific countries to illustrate the findings. Therefore, the sample is firstly general and then transforms to specific when the paper discusses the IPC phases of individual countries. Thus, overall, the source is indeed both reliable and accurate.

The source highlights that the East African and Horn of Africa region is already one severely affected by food insecurity (Endfield et al, 2009). This has been hugely exacerbated by COVID and the dessert locust infestations with authorities not having sufficient recourses to combat these crises and a lack of access for aid providers as a result of the pandemic (IPC, 2020). Statistically, the report highlights that there are more than 11 million people in Ethiopia, Kenya and Somalia who were already facing extensive food insecurity falling under IPC phase 3 or more (IPC, 2020) and that to make matters worse, these areas are currently also infested by the desert locust.

Moreover, the paper outlines that a further 120,000 people in Uganda and 2.76 million people in South Sudan alone have been under pre-existing food insecurity conditions bringing the estimated total of the number of people who are at risk at around 14 million (IPC, 2020). This thus highlights that already, the people facing food insecurity in the region is high, but the population now faces greater threat as a result of heightened infestations as well as COVID. This therefore supports the starting point of this paper that we are working with a sample of people who already are in a fragile situation with regards to food insecurity.

Dessert locusts:

The existing insecurity is also largely a result of ongoing conflict and economic shocks with the countries studied expressing high levels of internal conflict, political insecurity and dept (IPC, 2020). As a result of the dessert locusts affecting parts of Ethiopia, Kenya and Somalia, the IPC as well as other organisations such as amnesty international estimate around one million people being affected by the dessert locust invasion (IPC 2020, Moberly 2020). This point is a credible one as the infestation would likely affect crops and deter their growth meaning people will be left without food for a prolonged period of time. Moreover, as a result of COVID and the existence of a partial lockdown in most East African countries and Horn of Africa countries, emergency agencies are also restricted further from providing aid in the region (Temu, 2020). Thus, the population have been left without food, exacerbating an already fragile situation. For example, in Somalia, the IPC records that as a result of the infestation and the disruption to crop growth, that the 2020 Gu/Karan seasons production loss is estimated at 11,000 tons which highlights the severity of the

impact (IPC, 2020). This statistic furthers the argument of this paper as it shows that the impact of the dessert locusts has had a severe adverse impact on food security with the quality of crops being affected (Moberly, 2020).

COVID-19 pandemic:

The pandemic also poses a major risk to food security in these regions. This is mainly due to the restriction of movement which will impact agricultural growth by limiting workers from the informal secure moving to urban areas to sell their produce. Also, most people living in these regions regularly survive through humanitarian aid and the restriction of movement as a result of the pandemic will thus also heighten food security by limiting food resources from being accessed by the populations. This will impact the refugee population in particular as these people live in already cramped accommodation and limited food resources so their situations will also be worsened as a result of restricted movement from the pandemic (Temu, 2020).

For example, in the Ethiopian region of Bahir Dar, a state of emergency was declared following over 320 recorded cases 5 deaths as a result of COVID as of March 2020. The IPC research estimates that this will restrict livelihood but most significantly is likely to tighten the domestic food supply even more especially at a time where inflation is more than 20%, something also which has been largely due to the pandemic and restricted movement of persons to be able to earn a basic living (IPC, 2020). Again, this example advances the point of this paper that COVID and the various uncertainties caused by it are likely to exacerbate the current situation

with regards to food insecurity across East and Horn of Africa. Moreover, in Kenya, more than 980,000 people are estimated to be in IPC phase 3 which denotes crisis and IPC phase 4 denoting emergency with regard to food security between April and July 2020 (IPC, 2020). Again, this highlights the fact that food insecurity is on the rise.

Nonetheless, one might argue that famine is something which has long persisted even prior to COVID and thus the IPC statistics do not go far enough to indicate how the situation has exacerbated. Nonetheless, in response to this, it needs to be emphasised that the report was written in 2020 where not enough data could be collected to accurately describe the effects of COVID. For this to be further analysed, we need to look at papers produced more recently and assess whether or not they are compatible with the findings and predictions of the IPC. So, in the proceeding section of this statistical analysis, the paper will look at other statistics produced more recently as well as academic theories to argue that the IPC findings are largely consistent with the reality that COVID and the dessert locusts have heightened food insecurity in East Africa and Horn of Africa.

Cross-comparison of IPC findings:

Generally, the findings of the IPC are consistent with various research papers such as the paper produced by Mertens and Peñalvo (2021) in frontiers of nutrition which highlight that there is a correlation between COVID-19 and heightened vulnerability of fragile countries already experiencing malnutrition. This correlation advances the

point of this paper that the IPC paper is consistent with the growing trends however it does not tell us enough with the sample we are working with specifically, namely that of the East African and Horn of Africa region. Thus, while we should use the correlation to point to a general trend, we need to expand on whether or not the trend applies to our sample and so should not treat it as conclusive.

In Somalia, UNICEF (2020) have estimated as of July 2020 that the number of estimated people requiring humanitarian assistance is at over 5 million (UNICEF, 2020). The fact that this situation which was already fragile as a result of years of conflict and extreme weather conditions shows that this may not be a result of exacerbation by COVID or the dessert locusts. Nonetheless, UNICEF has shown to the contrary that Somalia is indeed under a triple threat with figures of those requiring assistance is at a high as a result of COVID. This has inspired UNICEF to allocate a COVID fund and increase this accordingly in order to try and tackle the threat. Therefore, we can see that COVID and dessert locusts, while not being the sole reason for an increase in malnutrition especially amongst children, is certainly something which could worsen the situation.

Moreover, the condition described as 'wasting' denotes a period of time where children are so malnourished that they are essentially too thin to function (WHO, 2021). Save the children (2020) have also shown that the access to those requiring aid needs to increase from 40% to 70% in order to prevent a generation in their sample; Kenya (KNBS et al, 2014), Somalia and Yemen from wasting. This again highlights the extensive need to provide for those who are facing malnourishment and famine which is exacerbated as a result of COVID and dessert locusts.

Finally, the IRC have also pointed out the devastating impact in East Africa and the Horn of Africa as a result of the dessert locust's infestation going as far to call it another 'plague'. The organisation has estimated a total of 4.9 million people being potentially without any food in summer 2020 (IRC crises watch, 2020). Moreover, the organisation highlights that the impact of the locusts is devastating because of the way that they can cause extreme damage to agriculture in minutes and one alone has the potential to consume the same amount of food as over 30,000 people (crises watch, 2020). This again advances the point of this paper that the IPC findings are consistent with wider observations. The example outlines that the dessert locusts which have infested the regions has the potential to cause serious damage and thus their growth and colonisation could indeed lead to food which is already scares from vanishing without human consumption. This will therefore inevitably exacerbate famine.

In conclusion, this statistical analysis has focused on analysing the IPC findings of food insecurity within the East African region and the Horn of Africa region and has utilised other findings from organisations to highlight that these insecurities have been heightened by COVID-19 and dessert locusts. It is hoped that this analysis sheds light on the contemporary issues which could exacerbate the already fragile situation and will be utilised by policy makers to encourage efficient policy responses to the issue (Takele, 2020).

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