The current Coronavirus Emergency is a bolt from the blue. Our hectic normal life patterns have come to a screeching halt as entire communities are placed in lockdown around the world. It is also turning out to be a moment to pause and reflect. Many people are sharing about the impacts of the Covid-19 pandemic, as evident from the increasing number of position papers, articles, columns and blogs. I am happy to add a few reflections from an ecological point of view.

1. An initial caveat is that reflections on the coronavirus emergency from an ecological perspective are scarce. It is understandable given that right now the priority is on responding to this health emergency, and attention naturally goes to the drastic measures that have been adopted to contain and flatten the diffusion curve, and to the socio-economic impacts of such measures.

Ecological considerations about the coronavirus situation to date are mostly peripheral. For example, there has been talk about the temporary reduction of CO₂ emissions (reduced by nearly a quarter in China alone) and even more markedly the nitrogen oxide emissions (nearly 36% in China) from traffic that cause air pollution through small particulates released from the burning of fossil fuels. The latter is good news in itself given that atmospheric pollution kills nearly 9 million people annually. From an ecological perspective, probably we need to highlight more how fossil fuels lead to atmospheric pollution, which has severe impacts on human health. This could be a possible winning strategy to strengthen the argument for the reduction of the use of fossil fuels in order to avoid the climate crisis. As the coronavirus emergency reveals, people and governments respond when human health is directly impacted.

As for the reduction of CO₂ emissions in the wake of drastic measures to contain the diffusion of the coronavirus, there is much hype about how CO₂ emissions have fallen for the first time since the 2008 Global Financial Crisis (GFC). It is argued that the coronavirus could give humanity a little more time to meet the climate emergency. However, as many have pointed out, there could be very little to rejoice here. The CO₂ emissions galloped immediately after the GFC as massive economic stimulus packages were introduced. China, for example, is already planning to restart their manufacturing industry in affected areas, and with the help of stimulus from the central governments, emissions around the world could spike again, just as it happened after the last GFC.

2. However, things could be different this time around. The crisis of the present coronavirus could be an opportunity for a new beginning. It is vitally important that we should not let the public and private response to the coronavirus follow the route that governments and businesses took after the 2008 GFC. Economic stimulus packages are important in order to improve strained health care systems, guarantee employment in the wake of the inevitable layouts produced

by the anti-coronavirus measures, and to support families and local communities to get back to normal life. However, we cannot afford to make the mistake of a repeat of 2008 when taxpayers' money was used to bail out banks and financial institutions (that caused the financial crisis in the first place!) and we went back to business as usual. We need to make sure that the post coronavirus economy should be different; it should resolutely follow the path of sustainability, equity, and democratic participation. It could be the occasion to launch a green, sustainable, circular and communitarian economy. The European Union, for example, could lead with the Green Deal, and the G7 and the G20 groups could be encouraged and persuaded to take this path. Civil society will have an important advocacy role to play to ensure that this does indeed happen. We cannot afford to return to business as usual precisely for the ecological and socio-economic impacts of the current economic system on the planet and on the people, and especially on the most vulnerable communities. The coronavirus is a clear indictment of the way we have been treating our common home and one another. We need to heed to this call and begin anew.

3. I will now pass on to a strictly ecological reflection in the wake of the coronavirus emergency.

During these days, when nearly a third of the world's population is in lockdown, it is heartening to see that a good number of people have begun to pause and reflect. People have begun to reflect on human-nature relationships. This is certainly a good thing. People are daring to think about bigger questions in the face of our collective fragility. One question that we need to ask ourselves is what really caused the coronavirus in the first place. We need to reflect on the root causes of this crisis. Here an ecological, and more precisely, a biodiversity perspective, is crucial.

The coronavirus reveals a fundamental truth that we have ignored for too long, namely, that we cannot be healthy unless the planet and its ecosystems are healthy. In fact, the present coronavirus and its previous "avatars" are strictly linked to unprecedented strains placed by increasing human interference on our Earth's ecosystems, and on biodiversity, in particular.

Over the past decades, 300 new pathogens have emerged as we destroy the habitat of species and violate the integrity of ecosystems. Emerging diseases are caused by the environmental alterations resulting from human activities. In the early 2000s, we had a form of the coronavirus that caused the SARS (Severe Acute Respiratory Syndrome) and which led to over 800 deaths. A decade later appeared another variation that caused the MERS (Middle East Respiratory Syndrome) which killed approximately three out of every ten patients with the virus. Now we have the novel coronavirus (COVID-19) which is fast spreading across the globe decimating populations. It is important to remember that like its predecessors, the novel coronavirus is a "zoonotic" disease – passing from wild animals to humans and then leading to human-to-human diffusion. It is widely reported that the outbreak of Covid-19 may have started in a wild animal market in Wuhan in China. The destruction of natural habitats and people moving into

closer contact with animal species that carry deadly viruses can cause pathogens to jump to humans.

In short, it is clear that the origin of the present coronavirus – as with its predecessors like the SARS and the MERS and analogously the outbreak of the Ebola – has to do with human interference in the intricate balance of natural ecosystems through wildlife trading, deforestation linked to mining, logging, animal husbandry, etc. and the consequent destruction of local biodiversity. With the rapid destruction of Earth's life-sustaining ecosystems, we increase the danger of the risk of the evolution of ever-newer, and possibly deadlier, human-adapted viruses in future. The Covid-19, and other deadly zoonotic viruses of the recent past like the Ebola in Western Africa or Nipah in East and later South Asia, are a clarion call to humanity to realize that we humans cannot exist and flourish, if we destroy the very ecosystems that sustain us and the rest of the fabric of life. There is a clear link between the wellbeing of humans, other living beings, and the ecosystem which we can ignore only to our peril.

In the wake of the coronavirus explosion, let us hope that there will be more thinking along these lines. We need to reflect more on the impending biodiversity crisis – as serious as the climate crisis and closely linked to it – with Earth threateningly poised on the verge of a sixth mass extinction of species. The Covid-19 pandemic is a stark reminder in this regard and a clarion call to act.

4. The coronavirus emergency has forced us to alter our lifestyles drastically. We have learned to return to the basics of life – huddled together in our homes and living on essentials when it comes to dining and travelling. Let us hope that we will be able to preserve some of this simplicity of living in the post-corona world. We need to regain sobriety in living if the planet is to survive. It is also vital for our own physical, emotional and spiritual wellbeing. We should not waste the precious lessons that we have been learning during this time.

It is time to take a hard look at our consumption patterns that have been wrecking the planet. We also need to take a hard look at some of the luxuries we are addicted to, like flying around for frivolous reasons, holidaying in exotic places and travelling thousands of miles to reach there, etc., with detrimental impacts on the planet and its ecosystems.

It may be worthwhile to dwell on one example. I was personally intrigued to read that demand in cruise travels is down by nearly 40% since the explosion of the coronavirus. It is welcome news given that shipping (like aviation) has been expanding rapidly in recent years with a huge rise in CO₂ emissions, and these sectors have been stubbornly resisting any public regulation. It is said that one cruise ship can release in one day as much pollution as one million cars. The European fleet of the world's single biggest cruise company, Carnival Corporation, creates more air pollution than all of Europe's cars! And cruise ships that use high-polluting oils, in turn pollute some of the world's most

beloved and fragile ecosystems such as the Arctic, Caribbean, and Galapagos Islands.

In the post-corona world, we will hopefully preserve some of the elements of simple living that we have been forced to acquire. It will bode well for our home planet, which is dying due to the pressure of our reckless consumption patterns. As the Ecological Footprint Analysis reveals, the profligate lifestyle of the rich world today would require another four to five Earths if all of humanity were to follow suit. It is time to reflect on the adoption of more sustainable lifestyles as we chart a more sustainable path beyond the current coronavirus emergency.

5. The coronavirus explosion has required us to reflect on the fundamental ecological truth that we are all interrelated and interdependent. We flourish or we perish together. This lesson will hopefully serve us in the coming years, as we will soon come to tip crucial physical and social tipping points. It is clear that the post-coronavirus world should be built on the foundation of greater collaboration between communities, nations and institutions, if we are to survive and flourish together. The *Laudato Si'* perspective of a "Common Home" and common human family can be very resourceful in this regard. We will overcome global challenges only by standing together and embracing the most vulnerable among us.

It is heartening to see that Churches and Religions are coming together in the wake of the present crisis and calling out to humanity to walk in solidarity. We need to strengthen this collaboration further in order to meet the even greater challenges of the climate and biodiversity crisis facing humanity today. In fact, the coronavirus emergency pales before the much bigger challenges like the climate crisis, unprecedented levels of biodiversity loss, the increasing scarcity of natural resources - water, in particular, and the suicidal course of stockpiling nuclear arms. These are indeed long term and hard hitting challenges that cannot be overcome with the discovery of a vaccine or through economic stimulus packages. If a deadly virus could bring the world to its knees, imagine the aggregate impacts of the climate and related crises, which are destined to last decades, if not centuries. The coronavirus emergency has taught us that we will need to pay a deadly prize for delay and inaction. We cannot afford to sink any more our head in the sand with regard to the unfolding ecological and socio-economic crises.

We will need to act together and resolutely to face the impending climate crisis and other ecological challenges, along with their socio-economic implications, paying serious attention also to the warnings from the scientific community, as we did in responding to the Covid-19 emergency. We cannot continue to ignore or even worse, trash scientific information and expertise, if not to our collective peril.

6. There is something intriguing and puzzling about the present coronavirus explosion. The Covid-19 pandemic has really caught the world's attention and

has shaken humanity (and even the stock markets), while much bigger challenges like the climate crisis and biodiversity loss are failing to do.

There is one important lesson that we can all learn from the coronavirus emergency, namely that communities and governments act when the "health" of the people is threatened. From an ecological point of view, this is an important lesson. We need to show more and more the "human" face of the contemporary ecological challenges by highlighting precisely its deleterious impacts on basic human well-being. In fact, the impacts are going to be even more pronounced and hard hitting than the current Covid-19 pandemic. The climate crisis, for example, will have harmful impacts not just on human health (heat waves causing thousands of deaths, for example), but also on food security (the FAO has some very good recent studies in this regard) and shelter/migration (droughts, wildfires, floods, and sea level rise wiping out entire communities or forcing them to move out, for example). This is already happening around the globe, though its full impacts will play out over a long duration. The moral of this story is clear: we need to learn to better present the human face of the various manifestations of the contemporary ecological challenges and the real threats they pose to human and societal well being.

7. Please allow me to offer a final reflection, also in the light of scouting through literature that has been published in response to the coronavirus. The sheer and nearly total absence of a perspective on the Covid-19 crisis from the vantage point of the weakest members of our society like the refugees, the migrant labourers, the daily wage earners, the homeless, the subsistence farmers, indigenous communities, et al. is greatly worrying. There is so much talk of bailouts, stimulus packages, state-of-the-art research and lab facilities, etc. but hardly any attention is paid to how the most vulnerable members of our household who do not even have a place to retreat to – as most of us can do during shutdowns – will face a situation like the current emergency. Imagine the challenges of practicing social distancing or of ensuring basic hygiene in a crowded refugee camp in the Middle East, or elsewhere.

It will also be important for the international community to support poorer countries around the world to prepare for the coronavirus pandemic. If rich countries like Italy and Spain floundered in responding to the current health crisis, we can imagine the plight of poorer countries. Apart from extending concrete assistance, it will also be important from the part of G7 and G20 countries and international monetary institutions like the World Bank and IMF to condone the debts of the most vulnerable countries, so that they can tide over the current crisis.

The widespread amnesia of the poor and the most vulnerable sections of our common human family, and indifference to their plight in the present crisis, is painful. Unless we learn to see ourselves as one human family, living in a common planetary home with a common destiny, and grow in compassion towards one another, and the most vulnerable among us, in particular, we will not overcome the global challenges facing humanity currently and in the years to come.

The poor and vulnerable hardly count in terms of GDP and are a voiceless group. Can we become their voice, consistent with the preferential option for the poor and the least, a choice that lies at the heart of our faith and social teachings?

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