

EOSEO10- Reflection Paper

Global warming: Exploring the possible effects over the next 100 years and perceptions about the feasibility of countering it.

Global warming is an urgent growing threat that requires actions to counteract the effects as for now we have failed to induce change. In this context, my question focuses towards the possible effects of global warming in the next 100 years and whether the general public perceives that the public and mostly private sector are on track in taking appropriate measures to tackle this issue to mitigate its effects. Thus, various perspectives have been discussed, ranging from optimistic to pessimistic. This essay will tackle different approaches, focusing on environmental concerns mostly and their impact on social and political dilemmas.

The first topic brought up when discussing the effects of global warming in the near future is the environment. The prevailing idea is that by continuing at our pace and not taking action, the increase in CO₂ and greenhouse gases will have devastating consequences on the environment. While some people have specific ideas about what those consequences might be, others are hazy on the details, simply stating that it will be worse.

Over the next 100 years, global warming will disrupt the interaction and cycles of the ecosystem by surpassing the planetary boundaries and may cause some extreme changes in weather conditions. Cold areas will become colder and warm ones will heat up. This will exacerbate the intensity and frequency of natural disasters such as storms hurricanes, floods, fires; threatening wildlife, fauna and flora and humans and further upset the ecosystem balance that we're already experiencing.

Interestingly, global warming negative's impact on oceans was less discussed but major issues remain with ocean acidification, reduction of fish population and plankton. The topic of diminishing forests was more highlighted, discussing the reduction of its CO₂ capture capabilities as well as leading species to extinction. Weather changes could lead to the disappearance of insects and pollinators like bees, being essential for food reproduction. Their decline could lead to food scarcity and disrupt biodiversity natural balance. For instance, we already see the emergence of pollinator jobs in China, where humans are filling the jobs of bees. Such species extinctions will have devastating effects on the maintenance and stability of the ecosystem.

Global warming causes water scarcity, which is at the root of many challenges and will worsen in the upcoming years. Indeed, blue gold scarcity is already occurring in some dryer regions lacking infrastructures, resulting in many conflicts like in the Middle East and access restrictions. Parallely, overconsumption of water in the global north such as for leisure

activities may be drastically restricted in the future to prioritize basic needs. New types of technologies might be developed to produce food using less water, like urban farming, drop-by-drop methods, or permaculture.

Ideas were discussed about the unsustainability of meat production due to its high-water consumption and emission of CO₂. Indeed, a lot of water is needed to produce meat as a significant amount of crops are grown only to feed the livestock instead of humans. Thus many believe in the decrease or disappearance of meat consumption in the coming years due to its requirements. Even if digitalization promotes vegetarian options, gaining popularity in some countries, this powerful industry and important emitter of CO₂ still poses major challenges to be reduced.

Furthermore, from a social point of view, the main idea brought up with global warming and water scarcity is the growing challenge of climate migration. More countries and regions are going to be touched by floods and the effects of natural disasters and extreme conditions. The situation is increasingly becoming a burning topic as it may result in entire populations fleeing their countries. Receiving countries mostly unprepared for it will face many challenges and tensions, regarding the bottleneck situation with employment, housing, food constraints and rising social inequalities. Some argued that it might increase protectionism, populism, relying on oneself and may affect trade and worsen relations between countries.

Linked to the effects of global warming were brought up to the discussion the effectiveness of firms and governments in making a change to mitigate climate change and whether they are on track or not. Opinions are quite divergent. Indeed, some optimistic views brought up that firms were making great progress at becoming more sustainable and that global warming is under control if they change and produce more sustainably. They were also positive that digitalization increases their influence which can accelerate change. However, this can be criticized as often being greenwashing.

However, diverging views highlight that these actions are not going to make a difference as they are superficial and that transformative change and aggressive policies are needed to induce a shift in consumption and production pattern, maybe towards circular economies and local production, and also if economies increase protectionism. It remains the biggest challenge as firms have great power over the economy and stakeholders aren't much involved. The main question is to shift the goal of companies from prioritizing profit and producing unsustainably to becoming more cost-effective and rewarding to become sustainable.

In conclusion, the possible effects of climate warming concern severe degradation of biodiversity and disequilibrium in the ecosystem leading to food and water insecurity as well as a myriad of social and political issues if no action is taken in the next 100 years. One important take is the striking differences in knowledge about global warming, and that the urgency and scope of the issue may not be fully grasped by some. To induce change, one

common idea is the need for transformative change to move towards a sustainable path, as the current economic growth trajectory is unsustainable for future generations. However, diverging opinions believe that global warming is under control and will be mitigated thanks to governments and firms acting in changing their production methods. Considering this problematic for the future, evidence shows that education is crucial to encourage future generations to take responsibility and make necessary changes before it is too late.

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