



Anthropology Of Lifestyle Choices And The Making Of Ecocide

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Abstract. It is established that a surge in urbanization and population has created an adverse impact on the environment. Technological advancements have resulted in a paradigm shift in our lifestyle, typically, towards fast-paced. Certain technologies have become indispensable especially personal and communication gadgets. This increased dependence has created a demand imbalance resulting in an economic response geared towards mass-scale production underscored by rampant exploitative behavior. This has had a direct adverse impact on the environment. In the current form, most of these mass scale production activities can be qualified to be causing an ecocide. In this paper, we explain the concept of ecocide from the perspective of an economic externality rather than considering it an international crime per se. Unlike a crime, an economic externality is incidental to an economic process. We further our insights into the economic aspect of ecocide and examine the ineptness of the present legal structure bringing urgency to aptly and effectively address the issue of ecocide. The economic perspective is critical to understanding the lacuna in the present legal framework. We take the instance of our intensive reliance on mobile phones and laptops and the adverse impact this has created on the environment highlighting the case study of mining Coltan. The first part of the paper analyses the present legal framework of production of Coltan in the Democratic Republic of the Congo (DRC) and its effectiveness or lack thereof in preventing environmental harm. The second part of the paper focuses on establishing liability of causing ecocide, therefore, provide for compensation with the help of the Coase Theorem. The paper concludes with suggestive perspectives to evaluate solutions that may have a lasting impact in mitigating environmental harm to the extent of an ecocide.

Keywords: Ecocide, Externality, Coltan, environment.

1 Introduction

Development is a process that transpires through interaction of humans with the environment. This interaction is intrinsic, complex and multilayered which typically involves several stakeholders and participants each with their economic goals as priorities. Several theories have developed through the course of years in the field of environmental law aiming to best maximize the benefit of human relationship with

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the non-human environment. Based on the concept of environmental ethics the initial approach has been the anthropocentric approach which placed humans at the center. However, prioritizing human needs over the environment has resulted in mass scale exploitation of resources and disregard to other life forms on earth. The ecosystems and bio diversities have continually been affected to an extent that has brought us to the present scenario where the world is grappling with issues of climate change and global warming.

With time this dependence on environment which was limited to requirements of basic sustenance for survival, that is, food, water and shelter expanded with the advent of industrial revolution. This marked a milestone of the modern-day degradation of the environment. Globalization and exponential advancement in science and technology, as is typical to it, has resulted in causing harm to the environment at an exponential rate and scale.

In the present scenario, the environmental harm caused by high-valued goods such as mobile phones is not only significant but also multi-layered as can be observed at several stages from the point of extraction of minerals necessary for its production to the disposal of the goods. The average carbon foot print created by a single smart phone is roughly 60 Kg Co₂ which is in addition to the destruction of bio diversities from deforestation and pollution. The magnanimity and recurring nature of this harm is a clear indication of the failure of the current legal and regulatory framework in arriving at a viable solution.

Interaction of humans with the environment is inherent to the former's very survival on this planet. Therefore, if the environment is harmed because of humans, there exists a need for regulating this behavior/function as it is not possible to curtail it completely. Sustainable development though based on anthropocentric system which creates access of resources for humans across intra and inter generations, it also deals with a very important element of creating balance between protecting environment and achieving development at the same time. It consists of a holistic approach taking into consideration the social, institutional, environmental and most importantly the economic dimensions of development. Particularly developing countries who are struggling with their economies and other pertinent issues such as poverty, hunger, unemployment, etc. tend to give higher preference to their immediate economic needs then ensuring the safety of the environment.

Most of the environmental issues that we face today are global in nature whereas the laws created for the protection of the environment are consequence driven that is the laws are enacted in ratio/response to the specific effect and impact of harm caused to the environment. Since the link of causation and harm in environmental issues can span over time/generations and geographical territory there exists a strong bent towards international recognition, compliance and adherence of environmental laws. Based on the similar lines, ecocide has also been strongly advocated by countries to be recognized as a crime under international criminal law. However, not every act

leading to ecocide can qualify to itself under the elements of crime as there are actions which are purely profit driven under economic terms and environmental harm is an externality of the production of a certain product in demand.

2 **Coltan- Case study of an Ecocide**

In this paper, the issue of ecocide shall be analyzed as a negative externality of extractive economies. Taking into account the adverse large-scale impact of production of mobile phones on the environment, the case study of coltan shall be examined. Coltan is a mineral that is indispensable to the manufacturing mobiles and laptops.

Coltan is a technology mineral. Due to its important property of high temperature resistance (light weight and space) it holds high demand compared to the other alternatives. It is primarily used in the manufacturing of mobile phones, laptops and other automotive electronics. Currently, Coltan consists of \$321.9 million market size with a prediction of upward growth. According to the United Nations Department of Economic and Social Affairs the current world population is 7.6 billion with a mobile phone subscription of 8.58 billion. Its high economic demand emanates from the present communication and technology intensive lifestyle. The unwavering demand of coltan has turned it into a conflict mineral affecting the life of environment and humans alike.

The majority of world reserve of Coltan is found in the regions of Africa whereas the buyers of the mineral are the multinational/international companies/corporations from the developed countries. Most of the Colton producing countries of this region are burdened with poverty, civil wars, ethnic rivalries and political instability. The DRC is the leading producer of Coltan and home to more than 60% world reserve of the mineral but it ranks amongst the lowest in HDI and GDP in the world. The forests of DRC cover more 50% of its territory, called the Congo Rain

Forest is second largest in the world after the Amazons. However, the country also ranks amongst the first ten in terms of annual loss of forest cover. Presently, the country has lost more than half of its forest land to mining activities encroaching into national parks and protected areas. With political instability and civil wars the government has been ineffective in controlling and regulating the illegal mining of coltan. Given the economic value of the mineral along with an accessible process of mining which involves manual shallow digging, has resulted in easy access to the mining operations mostly as artisanal miners. As a result of this several private and fragmented competing groups have emerged contending for their share of the mineral resource. Emergence of paramilitary groups, black-markets, smuggling and illegal trade of the mineral has become rampant. This trend has also spilled over to tensions with its neighboring countries Rwanda and Uganda. The illegal nature of the entire

activity through rampant unauthorized mining and mass scale deforestation resulting in material adverse impact to the ecosystem of the DRC.

On a national level the country has been formulating policies and regulatory enactments related to environment. Articles 48, 53, 54, 55 of the Constitution of the DRC deals with rights and duties towards environment in general. A National Environmental Plan was formulated in 1997 to deal with issues of environment protection, poverty and population growth. In 2001 the Ministry of Environment created a Directorate of Sustainable Development. Subsequently, based on the similar agenda the 2011 Environment Protection Laws were enacted which were to include sustainable development goals into the policies and plans across all sectors of the country. A number of legislations have been made in relation to protection of their forest and its resources such as the Mining and Forest Codes of 2002 and the National Plan Action against Deforestation 2006. While laws exist, there are gaps in the implementation scheme marred by mismanagement of funds, corruption and regular wars. Additionally, the laws related to environment protection are fragmented along with a weak judiciary which is projected by absence of special courts on environmental matters, lack of expertise of the judicature and legal practitioners on environmental matters and laws, absence of personnel and programs which stay limited to paper and absence of database on cases and journals related on matters of environment.

Insofar as International Law is concerned, the DRC has ratified the UNFCCC in 1995, the Kyoto Protocol in 2005 and the Paris Agreement in 2017. The DRC has also entered into several regional treaties and treaty contracts in relation to the protection of the environment. The DRC has also become a part of the international initiative on protection/regulating of exploitation of mineral resources called the Extractive Industries Transparency Initiative (EITI). Furthering the agenda under this initiative the DRC had to establish national EITI offices to fulfill the following obligations – (a) to establish a national committee, (b) to set up a legal system dedicated to mining related issues, and (c) to generate and publish reports at regular intervals bringing in transparency in the mining activities. In order to meet the aforementioned requirements the DRC prepared a good governance program in the year 2009 with a four year tenure. This initiative was fraught with challenges particularly with regards to generation of report owing to miniscule control on verifying the authenticity and accuracy of the reports generated by the companies dealing in mining activities. Despite having enacted national laws and following international obligations the DRC has been barely successful in ensuring the protection of the environment, particularly the harm caused to the biodiversity of the forested areas due to rampant illegal mining of Coltan. It is noteworthy to observe that the country earns an annual revenue of \$16.7 billion from the exports of mining industry yet the amount that is allocated for the development of environment is less than 1% of their annual budget.

In this legal matrix, the role of economics stay pertinent and unhindered which is reflected in the choice of the market forces based on demand and supply. Coltan

continues to be in demand regardless of laws to prevent environmental abuse finding its way to the buyers. As coltan from the DRC is categorized as conflict mineral, impacting environment along with gross human rights violation, the buyers of Coltan, in this case being the international corporations have devised indirect means of access to the mineral. According to the observations made by the UN Report on “Illegal Exploitation of Natural Resources and Other Forms of Wealth of DR Congo” there exists a systematic and systemic nature of exploitation of minerals. Coltan has been one of the prime minerals of this process. According to the said report, these mines are controlled by unlawful combatants of the neighboring states of Rwanda and Uganda. They control the entire operation from mining to extraction and final selling in the international market through a series of illegal and complex network. The coltan produced in this manner is devoid of any certification process. Additionally, the legal status of the local companies dealing in the mining is not questioned by the international buyer. Therefore, tracing the origin of the mineral becomes impossible by the time it reaches the international markets for sale. A number of international corporations have bought DRC Coltan through Rwanda for the Asian, European and US markets. Many of these corporations engage in investing and funding of the military operations and unlawful combatants for maximizing influence in the mines and its operations. Taking advantage of the political unrest and civil wars of the DRC the later corporations have also adopted to this methodology making it a pattern of investment which is further aggravating the unrest. This is a classic example of extractive economy consisting of unlawful extraction of resources by international corporations in low-income economies further accentuating global inequalities.

3 Ecocide – Evolution as a legal principle

Ecocide as a concept came into being during the 1970s period of the Vietnam War. The usage of Agent Orange, an herbicide used to clear the dense jungles in order to gain an upper-hand against the guerilla warfare caused grave and irreversible damage to the ecosystem and humans alike. The life-threatening effects continued to later generations as well with diseases such as cancer and congenital defects to name a few.

Over the years many countries have codified ecocide as a crime in their national laws with deprivation of liberty for a period ranging from 10 to 20 years. After the Rome statute came into force, the Office of the Prosecutor of the ICC released a Policy paper which states that the ‘impact’ element of a crime shall be a crucial factor in assessing the gravity of the crime. Harm to the environment qualifies as one of the many requirements of ‘impact’. Subsequently harm to the environment was included in the Policy Paper of 2016 for prosecution of crimes under the Rome Statute. Following which in the later years, official requests/efforts have been made by countries for the consideration of ecocide as a crime under the ICC.

The concept of ecocide has emerged from its close association to the concept of ‘harm’. Ecocide as a crime holds its roots in the concept of war, warfare and

aftermath of war. War and war crimes come under the purview of international humanitarian law overlapping with international criminal law and human rights law. The proposed draft definition to the amendment of the Rome Statute prepared by the Independent Expert Panel (IEP) is “ecocide means unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts”. Therefore, for an action to fall within the crime of ecocide it should have wantonness, with severe, widespread and a lasting long-term impact to the environment. Irrespective of inferring what the exact definition of ecocide means, many experts have agreed that a grave destruction of the environment and its consequences that follows for generations is enough to qualify it as ecocide. Most of the mass scale exploitation of resources for meeting modern day economic demands qualify to fall within the definition. Deforestation, destruction of ecosystems, biodiversity loss etc. can all be considered as acts of ecocide.

States are progressing towards gaining momentum for international recognition, codification and criminalization of the crime. However, codifying ecocide under the jurisdiction of the ICC also means equating the crime to the four preexisting crimes under the Rome Statute, being genocide, crimes against humanity, war crimes and crimes of aggression.

War is primarily guided by ideology based political, territorial, religious and economic state goals through planned violence led by the head of the state. Actions by multinational and international corporations are purely driven by free market economy. Whereas the actions of both can lead to causing ecocide but the former is a rare occurrence and the latter is a regular outcome of lifestyle choices and economic externalities. Therefore, criminalizing or equating a regular economic phenomenon to grave crimes under international criminal law is not going to offer a lasting solution. This shall be reduced to a symbolic gesture of environmental justice.

There is definitely a requirement of establishing liability for environmental damage but for economic driven actions, law must be approached from an economic perspective. The current definition provided by the IEP does not take into consideration the complexity of various interrelated factors that lead to grave environmental harms. The definition is general and broad. Grave crimes such as genocide, war crimes should not be treated at par with an economic externality of demand and supply. We consider the example of Coltan where mining of Coltan is directly proportionate to the demand of mobile phones and laptops. According to the revealed preference theory a consumer’s behavior can be determined by observing his choices for a commodity across various price range against his purchasing capacity. This theory is used in understanding the impact of different policies on consumer behavior. This is also in reflection of utilitarianism in context of economic behavior wherein the fulfillment of desires is relatable to maximizing the sum total of pleasure.

As aforementioned, the DRC has enacted several national laws to combat deforestation and mineral exploitation. The country has ratified international treaties and associated itself with international bodies to regulate the mining activities. Though the laws exist but the laws have failed to be effective. In order to determine which party holds the liability to compensate the environmental harm caused due to coltan extraction, an alternative approach is adopted wherein the distribution of rights shall be examined against the interaction of market.

The popular understanding of drawing in liability for large scale grave environmental harm emanates from two principles namely the public trust doctrine and the polluter pays principle. The laws of the DRC are based on these principles and so does the world view towards criminalizing 'ecocide' under international criminal law. The rationale lays on first treating the resources as the collective wealth of the world and emanating for the first concept comes the second aspect of being the right holders as one world community to make the polluter accountable to compensate/pay. The Coase theorem uses the element of 'value' associated to the good to access the establishment of right. This right emanates from the party which allocates the maximum value to the goods determined from their ability/capacity to make better returns along with the additional costs of fault or externalities.

A free market operates on the balance of demand and supply. Efficiency in the market is described as the perfect level of price and supply. It is created when a point of equilibrium is achieved due to the interaction of demand, supply and cost. This efficiency can be distorted if the supply gets affected. When a supplier/producer of goods incurs a number of costs which if incurred by other party shall lead to an imbalance in the equilibrium. For example, if the government provides subsidies to the supplier that shall lead to decrease in his cost and make him produce more than what is actually demanded in the market. According to Pigou environmental harm is a cost to the supplier/producer therefore if other parties pay for that cost for example additional taxes by people for financing governmental work on cleaning the environment or the hospital and medicine charges for diseases caused by pollution. It shall then directly lead to increase in the production beyond the demand. Therefore, according to Pigou costs incurred by the supplier should be internalized in the form of corporation taxes, regulation and penalties on externalities of environmental harm etc. Internalizing the costs is the only solution to bringing back the market equilibrium. Pigou's approach is evident with the common law structure and the laws on protection of environment where in a cost is always imposed by one party on another for example a polluter of a water body imposing a cost on people in accessing clean water. This cost in legal parlance ends up affecting the very rights of people, thus leading to the creation of laws to secure the right through imposition of fines and penalties. According to Pigou the fault and accountability rests with the one party alone which can be predetermined.

Though Coase accepts Pigou's initial arguments of market equilibrium he differs when it comes to creation of fault and accountability, further determining which party

pays for the cost. Contrary to Pigou, Coase is of the opinion that there exists a reciprocity of causation, which means that when two activities are in question the accountability of fault/externality shall emanate from the participation and activities of both the parties combined and not only one. That means in the current case of Coltan mining and lifestyle choice of mobile phone and laptop usage, if there was no coltan there would be no laptops but it is also true if there were no laptops itself then there was no requirement of coltan mining. The fact that coltan is getting mined in mass scale generates from the mass scale demand of the good. This relation is known as the reciprocity of causation. Applying this approach, it becomes clear that even if one were to replace coltan with any other mineral that could create coltan like negative impact on the environment based on the sheer factor of demand.

According to reciprocity of causation the party to be held accountable for costs and externalities cannot be assumed in advance. However, according to Coase the question of accountability requires a further determination of the transaction cost. In here he criticizes the general approach of economists who make economic assumptions and theories based on complete absence of transaction cost. In real world there are transactions costs involved at complex levels.

4 Conclusion

According to Coase, transaction cost is an important factor in establishing liability of fault. As the distribution of legal rights is heavily impacted by it. He analyses two scenarios one a world with no transaction cost and a second with a transaction cost. In a world with no transaction cost the initial distribution of rights shall not influence the final distribution of those rights. But we shall evaluate a scenario where transaction cost is involved as in the real world. Evaluating the scenario of Coltan mining in DRC. Let us say the value of the coltan has been placed by the mining companies at 10x amount of money and the value put by the buyers i.e international companies is 50x. The international buyers have to also pay a transaction cost which could be funding of the militant groups for better control on larger share of coltan or paying taxes, etc. which adds up another 10x. The company is still willing to pay this transaction cost because of the high value of 50x that the buyer has placed on the goods. In a real world with transaction cost, irrespective of how the rights were distributed at the beginning, the final right holder becomes the party who is able to put a higher value to the good. In this case of coltan mining the distribution of rights are in favor of the international companies and thus ecocide shall also continue to happen. Criminalizing it either nationally or internationally shall not solve the issue as the action is not criminal in nature rather it is very much value based in nature.

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