

Issues on Environmental Crimes

- Although the definition of “environmental crime” is not universally agreed, it is most commonly understood as a collective term to describe illegal activities harming the environment and aimed at benefitting individuals or groups or companies who engage in the exploitation of, damage to, trade or theft of natural resources, including, but not limited to serious crimes and transnational organized crime.
- The term environmental crime, therefore, covers not only the illegal trade in wildlife, but also forestry and fishery crimes, illegal dumping of waste including chemicals, smuggling of ozone depleting substances and illegal mining.
- Illegal mining is not limited to illegal extraction of resources, it also has severe environmental impacts, whether from mercury pollution from artisanal gold mining, or destruction of natural flora and fauna, pollution, landscape degradation and radiation hazards, with negative impact on arable land, economic crops and trees.

- A broad understanding of environmental crime includes threat finance from exploitation of natural resources such as minerals, oil, timber, charcoal, marine resources, financial crimes in natural resources, laundering, tax fraud and illegal trade in hazardous waste and chemicals, as well as the environmental impacts of illegal exploitation and extraction of natural resources.
- Environmental crime has serious and deleterious impact on the environment and ecosystems, as well as on peace, security and development.
- It is currently estimated that the scale of environmental crime (comprising different forms of crimes) is likely to be in the range of USD 91–259 billion.

- **Impacts of Environmental Crimes on the Environment and Ecosystems**
- An ecosystem is a dynamic complex of communities of plant, animal and microorganisms and the non-living environment interacting as a functional unit.
- Ecosystems provide a range of services and provide the very foundations of our economy, human health, livelihoods and well-being.
- These include: clean air, water supply, extreme weather mitigation and storm protection, food security and pollination, just to mention a few.

Different forms of environmental crimes and their approximate estimated scale

Environmental crime	Annual loss of resources 2016 estimate (USD)
Illegal Logging And Trade	50.7–152 billion
Illegal, Unreported And Unregulated Fisheries	11–23.5 billion
Illegal Extraction And Trade In Minerals/ Mining	12–48 billion
Illegal Trade And Dumping Of Hazardous Waste	10–12 billion US\$
Illegal Trade And Poaching Of Plants And Other Wildlife	7–23 billion US\$
Sum Environmental Crime	91– 259 billion US\$

- **Forms of Environmental Crimes**
- **i) Illegal wildlife trade (ITW)**
- Estimates of the illegal trade in wildlife are generally around 7–23 billion dollars annually, including anything from insects, reptiles, amphibians to mammals.
- It concerns both live and dead specimens or even products made from wildlife or plants.
- The specimens and products are used for pharmaceutical, ornamental or traditional medicinal purposes.
- Illegal harvest and trade includes a range of species from iconic ones like gorillas, orangutans, elephants, tigers, rhinos, Tibetan antelopes and pangolins to corals, birds, reptiles and sturgeon for caviar.
- These species often constitute significant financial transactions, both for national economies as well as to black markets.

- The environmental impacts of ITW range from an immediate detrimental effect on the target species and incidental loss of non-target species, to a long-term deterioration in ecosystem services with regional and global consequences.
- The most obvious and well-documented environmental impacts of ITW are the deleterious (harmful) effects on ***target species***.
- These effects manifest in declines in population size resulting in certain species being driven to the brink of local, national, or global extinction as a result. Examples include African elephant, black rhinoceros and tiger.
- While there has been much focus on large species, ITW affects a range of other wildlife whose loss may potentially have more notable long-term impacts on the environment, national economies and local livelihoods.

- The loss of populations of species as a result of ITW may have cascading effects across the ecosystem resulting in a deterioration of ecosystem.
- Another serious environmental consequence of ITW is ***altered demographic and genetic structure***.
- This happens as a result of illegal hunters targeting individual animals with specific characteristics within a population. Such targeting may have a disproportionate effect in reducing the long-term viability of that population.
- For example, reproductive collapse in saiga antelope has been attributed to a strong sex ratio bias resulting from selective illegal hunting of adult males for their horns.
- Another example is the tendency of fisheries (fishing industry) to target larger, older individuals.

- Not only does this selectivity lead to demographic effects, it also impacts on migration or parental effects that may disrupt the ability of a population to withstand, or adjust to, climate change (Planque et al., 2010 in *Journal of Marine Systems*)
- Other environmental impacts of ITW include the ***spread of diseases and invasive species***
- Various activities associated with illegal trade may increase the risk of disease transmission to wild populations of the target species, in addition to the wider impacts of disease on the environment and human health.
- The capture and transport of live animals, which is likely to have less regard for animal welfare where the trade is illegal, may increase the susceptibility of the animals concerned to disease by placing them under stress and housing them in poor conditions, often in large numbers.

- **ii) Forestry Crimes**

- The vast majority of deforestation and illegal logging takes place in the tropical forests of the Amazon basin, Central Africa and Southeast Asia.
- Recent studies into the extent of illegal logging estimate that the economic value of global illegal logging, including processing, is worth between US\$ 30 and US\$ 100 billion, or 10–30 per cent of global wood trade.
- In the last five years (as at 2014), illegal logging has moved from direct illegal logging to more advanced methods of concealment and timber laundering.
- Illegal logging operations have also in some cases involved murder, violence, threats and atrocities against indigenous forest-living peoples.
- The challenges already facing indigenous peoples are further compounded as companies now launder illegal logging under fraudulent permits for ranches or plantation establishment schemes.

- UNEP and INTERPOL listed in 2014 some 30 different ways of conducting illegal logging and laundering illegal wood.
- The report listed the following as constituting ten ways of conducting illegal loggings:
 - 1) Logging in protected areas;
 - 2) Logging without permits in unprotected areas;
 - 3) Illegal logging in conflict zones;
 - 4) Logging in excess of permit or concession quotas;
 - 5) Logging with forged or re-used permits;
 - 6) Obtaining logging permits illegally through bribery;
 - 7) Establishing or expanding palm oil, bio-fuel or other plantations;
 - 8) agricultural expansion by small-scale farmers;
 - 9) Cattle ranching and soy production;
 - 10) Widening road corridors, mining or other felling without a permit.

- The report equally identified twenty ways of laundering illegally logged wood. These included:
- 1) Mixing illegally logged logs with legal logs by exceeding cutting quotas on-site. Here, a legal logging permit is obtained, and the logging operator simply exceeds the permitted quota or area assigned, and piles illegally cut logs with legal logs for road or water transport. Companies may further increase profits by over-invoicing transport, while under-reporting (under-invoicing) the volumes sold officially.
- 2) Mixing illegal logs with legal logs by transporting illegal timber from an illegal cutting site to a legal forest operation.
- 3) Using permits or logging concessions in one area to cut in a different area, using road transport to hide the origin. This can take place over long or short distances.
- 4) Mixing illegally logged timber with legal logs at a sawmill or pulp mill, sometimes exceeding the official capacity of the mill. All wood products from the processor or manufacturer get the same “clean” origin statement.

- 5) Under-reporting processed volumes in mills by overstating the percentage of wood extracted on average per cubic metres of logs processed or by understating the total capacity or volumes produced, or by laundering timber through a plantation with a smaller actual volume.
- 6) Exporting illegal logs cross-border by bribes at border points from origin country A or by illegal roads, and exporting as “legally originating” from country B, bypassing licensing.
- 7) Exporting logs illegally from origin country A to country B, then re-importing to a mill in country A as “legal” import from B.
- 8) Controlling legal or illegal border points. This is common in conflict zones and remote areas.
- 9) Exporting logs by road or ship, and then re-selling the entire shipment to a third country through open trade, thus changing the ownership and assumed origin of timber, often using original customs papers from the third country.

- 10) Falsifying origin of logs or wood products in customs papers, or bribery of customs officers and forest officials. This also includes falsifying eco-certification.
- 11) False declaration of tree species on customs papers, especially for endangered or rare species.
- 12) Using existing export permits and certificates to export illegally logged timber originating from another part of the country
- 13) Multiple re-use of existing export permits and certificates for export in harbours. Only a fraction of traded volumes are actually checked by customs.
- 14) Using forged permits or permits obtained illegally through hacking of government sites or bribery.
- 15) A limited group of sellers get official permits to export timber legally and get certified – often through bribes. They procure a certain amount of legal timber, and mix this with illegally cut timber. Any company buying timber abroad from these officially approved sellers is buying timber classified as legal export.

- 16) Obtaining a legal permit for a plantation and cutting down existing forest. Many plantations – whether for bio-fuel or wood production – are established simply to cut down the existing trees. They sell logs in the first years, and then close the company or get new plantation permits for additional areas, often bordering on primary forest.
- 17) Obtaining a permit for plantation production of wood for mills and funneling illegally logged timber through the non-productive plantation permit.
- 18) Laundering illegally cut wood by mixing it with legally produced plantation products.
- 19) Selling illegal timber as part of legal land clearing operations for palm oil or soy plantations or ranching establishments is a common laundering scheme.
- 20) Cutting wide corridors along new roadways, thus mixing the illegally logged corridors with legally permitted cuts for road establishment.

- **iii) Fisheries Crimes**

- “Fisheries Crime” is a term that refers to the enabling crimes or associated criminal activities conducted by national or transnational organised crime business models in fisheries value chains.
- It includes crime in the whole fisheries sector from harvest to processing, to logistics, transport, trade in the products, branding (including food fraud) and the traditional fraudulent criminal activities of nationals committed in multiple jurisdictions such as conspiracy, extortion and bribery.
- According to the Food and Agriculture Organization (FAO), 29% of global fish stocks were overfished or extinct in 2011 and well over half of global fish stocks are fully exploited.
- At the same time, fish and fish-products are 20% of the source of animal protein for 3 billion people around the world and the fish and fish-farming industry secures the livelihoods of between 10 and 12 per cent of the global population, most of these in developing countries.

- It is estimated that on average 18% (geographically ranging 3–37%) of the global catch, or as much as 11–26 million tons of fish, is caught illegally each year.
- Illegal fishing undermines food security, livelihoods, fisheries management and biodiversity. Illegal fishing threatens the subsistence existence of coastal communities worldwide.
- There are several inherent factors that make the fisheries sector particularly susceptible to crime.
- The industry is a truly global enterprise, with fish caught both in areas within and outside national jurisdiction, and in remote areas beyond the scrutiny of ordinary law enforcement agencies.
- There is great mobility of actors, infrastructure (vessels) and commodities.
- Added to this is a vague international legal framework governing the law of the sea, which fails in many respects to fully take on board the implication of transnational organised crime taking place at sea and particularly in the fisheries sector.

- **iv) Waste and Pollution**

- The global waste market sector from collection to recycling is estimated to be USD 410 billion a year (UNEP 2011), excluding a very large informal sector.
- In common with any large economic sector, there are opportunities for illegal activities at various stages of legal operations.
- The global waste sector takes several forms – firstly a legal industry sustaining business and environmental protection, secondly an unregulated sometimes even informal business, that is important for recycling and job creation as well, but with health risks and challenges of monitoring the safety and sound management. Thirdly, trafficking in hazardous waste and chemicals by organized crime.
- The exact size of the global illegal waste trade is unknown. The latest research on e-waste, a product of one of the world's largest and fastest growing manufacturing industries, estimates that about 41.8 million metric tonnes (Mt) of e-wastes were generated in 2014 and that this number will increase to 50 Mt already by 2018.

- Export of hazardous waste from European Union (EU) and Organisation for Economic Co-operation and Development (OECD) Member States to non-OECD countries is banned; therefore it is not subject to notification or licensing.
- Instead, thousands of tonnes of e-waste are falsely declared as second-hand goods and exported from developed to developing countries, including waste batteries falsely described as plastic or mixed metal scrap, and cathode ray tubes and computer monitors declared as metal scrap.
- Africa and Asia are key destinations for large-scale shipments of hazardous wastes for dumping, and sometimes for recycling.
- Ghana and Nigeria are among the largest recipients in West Africa, although high volumes of e-waste are also transported to Cote d'Ivoire and the Republic of Congo. In Asia, China, Hong Kong, Pakistan, India, Bangladesh, and Vietnam appear to bear the brunt of illegal e-waste shipments.

- Waste is often deliberately classified as other items to bypass or deceive law enforcement authorities. This is often done by using non-hazardous waste codes for hazardous wastes or using product codes for hazardous wastes or disguised as second hand goods.
- The Basel, Rotterdam and Stockholm Conventions are the primary instruments for tracking and managing hazardous waste and chemicals, along with other initiatives such as the UN Solving the E-waste Problem (StEP) Initiative on electronic waste.

- **Root Causes of Environmental Crimes**

- **1) *Poverty as a driver***

- Poverty is considered a root cause simply because it facilitates recruitments of low-level perpetrators, smugglers or couriers. It is also major cause of especially poaching of bushmeat because poor people hunt to satisfy basic needs.¹⁸⁰⁻¹⁸¹ Poverty as a cause of poaching is associated with losses of hunting rights, dispossession of land in favour of protected areas, and lack of employment and education opportunities.

- **2) *Demand as a driver***

- With large demand for anything from wildlife, timber, pulp to cheap illegal chemicals and unregistered gold and minerals, recruitment and illegal trade will continue, simply due to the lucrative nature of the business.
- Buyers place higher value on illegal wildlife products when they are considered rare and uncommon, which drives up prices. If supply side anti-poaching efforts are effective, they may nonetheless contribute to driving up prices.

- **3) Organized Crime-driven root causes**
- After decades of efforts against drugs, prostitution and human trafficking, with laws, customs, police and prosecution efforts, these traditional crime areas are perceived as higher risk – though still thriving.
- At the opposite scale are environmental crimes, which offer a low risk permissive environment, where items such as timber, charcoal, gold and minerals can be transported freely with a few bribes or even rudimentary falsified or purchased “permits”.
- This situation is far worse for waste products and especially electronic waste: If perpetrators classify electronic waste as second-hand goods they can transport it carelessly and dump it. Hazardous waste can be mixed with ordinary waste and chances of inspections are negligible.

- **4) *Permissive environment root causes:***
- Many African countries and some Asian ones have some of the lowest number of police officers per capita, extensive challenges of corruption and dwindling budgets.
- Cost estimates from the 1980s and 1990s assessed USD 200–400/ km² as necessary for effective enforcement.
- For example, Selous Game Reserve in Tanzania, which has the largest concentration of Savanna Elephants in Africa, was in 2003 enforced at a cost of only USD 3/km² , or about 1 percent of the recommended funding.
- The situation is also extremely poor for prosecution and courts/the judiciary in many developing countries, where the latter two are seriously under-resourced. Indeed, a regional breakdown between North America and the countries of southern Africa in terms of the relative expenditure on police, prosecution services and courts revealed that in North America 43% of these funds went to prosecution and courts, while only 16% in Southern Africa.