

Corruption and environmental deterioration in Mexico

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Abstract: The presence of corruption in Mexico is a constant phenomenon that affects different areas from human rights, business opportunities, access to public health care, education, social inequality and social mobility, freedom of expression until environment and natural resources. In this sense, this text aims to shine a light on the Mexican corruption and its impact on the abuses against natural resources and environmental degradation: bribes, illegal permits, threats to journalists and environmental advocates, collusion, smuggling, cronyism, systemic influence peddling are some of the most common crimes. The present text is guided by the assumption that the environmental degradation in Mexico is accelerated due to corruption. Thus, this article is divided in two parties. The first one considers the main arguments about the correlation between corruption and environment degradation. The second one presents the consequences of Mexican political corruption and its influence in environment deteriorating. Finally, some comments are offered to wrap up the discussion, which shows the challenges to reduce the impacts of corruption into degradation of the environment.

Keywords: Corruption, environment degradation, Mexico, climate change, environmental crimes

Introduction

In recent years, news, documentaries, podcasts, magazines, academia and people from all over the world speak about the effects of climate change, however a few times it is mentioned that this climate phenomenon is fuelled by corruptible actions of lousy politicians, who allow the destruction of natural resources for their own gain, without any concern to human health or cultural and social organisations of local communities. Certainly, the countries with high levels of corruption are prone to losing more national resources than those countries with low levels of corruption that trend to care more their natural assets. Deforestation, illegal wildlife trade, water waste, over exploitation of natural resources, unregulated practices to pollute the air and illegal permits to process solid waste are among the most frequent practices in Mexico.

Corruption, bribes and embezzlement, poor accountability, inefficient business integrity, violence, powerful guns used by criminal groups to appropriate natural resources, poor implementation of public policies destine to reduce climate change effects, lousy politicians, lack of awareness among decision makers, poverty, illiteracy and social inequality are the most common factors that contribute to worsen the environmental degradation and the climate change effects.

Many outstanding politicians, with a long career on corruption practices, frequently are also linked to damages to the environment. In this vein, the present text is aim to analyse the role of corruption into the environmental degradation in



Mexico. The text holds the hypothesis that corruption accelerates the environmental degradation and by extension the effects of climate change. The article is presented in two parties. The first one considers the main arguments about the correlation between corruption and environment degradation. The second one presents the consequences of Mexican political corruption and its influence in environment deterioration. Finally, some comments are offered that shows the possibilities and challenges to reduce the impacts of corruption into degradation of the environment. The text is based on qualitative and quantitative data, press release and ethnography observations.

Environmental corruption

Since the European and North American industrial revolutions of the 19th century, humans have extracted carbon from the earth and used it, mainly in the form of coal, oil or gas, for transportation, heating or factories, and then released it into the atmosphere. Once in the atmosphere, the carbon began to accumulate and ended up rapidly changing the climate in the late 20th century, since there are not enough trees to return the carbon from the atmosphere to the subsoil. Policies to tackle the build-up of carbon in the atmosphere are too slow or ineffective (Rafitoson, 2023) or what is worse there are politicians, entrepreneurs and decision makers who prioritise the financial profit over the well-being of populations around the world, particularly in the most disadvantaged countries in Africa, Asia and Latin America.

There is wide evidence that corruption is a major driver of deforestation for oil extraction, farming, mining, construction and building projects. In most of the cases, the political power eases the over exploitation of the natural resources through bribes, false ownership, permits or simply ignoring illegal activities.

For example, illegal trade and timber exports are facilitated by corruption in customs, tax and other public services (Rafitoson, 2023). Not to mention, the repression and violence against local populations and activists, who oppose the interest of companies, politicians or stake holders.

There is a lot of evidence that climate change² is aggravated in recent years. The elements of the climate system -atmosphere, land surface, ice, and the biosphere-are altered due to the extreme misuse or mismanagement of the natural resources, as well as the implications of the industrialisation process. The collateral consequences of this deterioration are related to droughts, floods, landslides, water scarcity, animal extinction and botanical species, without forgetting, the negative

¹ The term corruption is taken as the abuse of public power for private purposes. This definition assumes the distinction between public and private roles. In many societies the frontier between both spheres is not very clear, and it seems to be natural to give some gifts in exchange of assigning contracts and jobs. The distinction between public and private spheres seems to be strange and not clearly defined. (Rose-Ackerman, 1999: 91) The most common forms of political corruption are embezzlement, bribery, collusion, influence peddling, fraud, nepotism, cronyism, and clientelism.

² Climate change science seeks to understand the physical, chemical, biological and geological processes, and the interactions among these processes, that produce climate. The scales of interest range from local to global and from weeks or months to millions of years. Changes in climate, both temporally and spatially, are detected by examining observational evidence from instruments and indicators such as tree rings, fossils, glaciers and sea ice, plant pollen, and sea level. One of the goals of the scientists is to predict future climates based on natural phenomena and to project future climates based on assumptions of future human activities (UNITAR, 2015: 4).



effects of climate change on humans such as infectious diseases, mental health, famine, malnourishment, migration, conflict and wars.

There have been some international initiatives to reduce the impacts of climate change addressed to developing world through financial funds; however those funds in most of the cases end up in the pockets of national or local politicians or corruptive local leaders. Worse still, many of these financial resources are distributed at discretion or as loans, which generate national debts for poor countries, and creating a new income for developed countries.

For example, the Green Climate Fund (GCF), the world's largest climate fund, created by the Paris Agreement to channel financial resources to developing countries in order to fight climate change has been strongly criticised due to the failure to reach its goals. Since the GCF agreed in 2009 to mobilize \$100 billion a year for developing countries to take climate action, both to adapt to climate change and cut emissions, however the distribution of funds has not been equitable. Developed countries provided \$83.3 billion. Only 8 percent of the total went to low-income countries and about a quarter to Africa (UN, 2023).

The production and sales of green technology, monopolised by the West, is another area that is creating a gap between rich and poor countries. The total export of green technologies from developed countries jumped from around \$60 billion in 2018 to over \$156 billion US dollar in 2021. Green frontier technologies such as electric vehicles, solar and wind energy and green hydrogen are expected to reach a value of \$2.1 trillion US dollar in 2030 –four times greater than their value today. Market revenues for electric vehicles could rise five times to reach \$824 billion by 2030 from today's value of \$163 billion US dollar (UNCTAD, 2023).

Driessen in his book the Eco-imperialism asserts that sustainable environmental policies dictated by the west ignore the legitimate aspirations and needs of people who have not yet shared the dreams, successes and comfort than lower and middle income people in the developed world, but the west continue asking them to adopt expensive green technology, when they don't have even drinkable water (Driessen and Innis, 2005: 74).

The third World's poor increasingly want to trade their huts for modern homes, enjoy running water, refrigeration, electrical lighting and other basic necessities taken for granted by the westerners. They want to see their children live past the age of five. They resent having their choices dictated by First World environmental activists, under the guise of sustainable development. (Driessen and Innis, 2005: 78-79)

Certainly, survival strategies are the first priorities in poor communities rather than caring about pollution or climate change. However, the consequences of climate change will affect or is already affecting them. The increase of environmental deterioration is higher in the developing world, for a myriad of factors. Among the most important are the access to technology to tackle climate change, financial resources to invest in better infrastructure, education to value their natural resources and public health, without mention, the measures to curb corruption, which reduce the possibilities to tackle climate change effects and human suffering.

Millions of people die every year from diarrhoea and other waterborne diseases, most of them before age five. Imagine not knowing whether the next glass of water will kill you (Driessen & Innis, 2005, p.84) perhaps this image can help us to put in perspective the extend of the situation for vulnerable countries.

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It is not by chance that there is a correlation between corruption and environmental degradation3 around the world. According to Transparency international, the Corruption Perceptions Index reveals that the most vulnerable countries to suffer the impacts of climate change face high levels of corruption as it is shown in the following graph.

0.70 0.60 8 0.50 0.40

CORRUPTION AND CLIMATE VULNERABILITY

ND-Gain Vulnerability Index. For full CPI scores used, click here.

0.30

0.10

-10 0 10 20 30 40 50 60 70 80 90 CPI score 2018

Tranparency International-TI (2023) Corruption and Climate vulnerability. A Devastating Relationship, Berlin, Germany, Transparency International.

According to the graph, Bangladesh, is one of the countries most vulnerable to climate change and records an estimated of 35 per cent of climate project funds embezzled, while in Peru, indigenous leaders protecting their lands from illegal deforestation face violent retaliation, intimidation and constant harassment. As in the Maldives, an entire community was relocated and left without adequate housing. The list of vulnerable countries goes on and on (TI, 2023a).

The same correlation between corruption and environmental degradation is applicable for Mexico, where corruption, reaches most of the government structures. According to Transparency International, Corruption Perceptions Index 2023 that analysing 180 countries, Mexico is rank in the place 126, equally than El Salvador, Togo and Kenya, reaching a score of 31, on a scale from 0 to 100, where 100 is very clean and 0 is highly corrupt (TI, 2023b) Similar scores are given by the Global Corruption Index (GCI) presented by the Global Risk Profile (GRP) that covers 196 countries around the world. As for the GCI, Mexico reaches the score 50.82 and a rank of 118, where 0 corresponds to the lowest risk and 100 to the highest risk (GRP, 2023).

³ The environmental degradation term comprise wildlife trafficking, non-compliance with environmental obligations, social and environmental justice (Arroyo and Wyatt, 2018). As well as, the air emissions, soil degradation, solid waste, untreated water, hydrocarbons, ground water, deforestation, over exploitation of sea lives such as overexploitation of fish (UNITAR, 2015)



Regarding climate mitigation and climate public policies, the climate change performance Index ranks Mexico in the place 38 with a overall score of 55.8, where 100 means better performance and 0 worse performance. The study compares the performance of 63 countries worldwide, including the European Union members, which together account for over 90% of global greenhouses gas emissions. According to this report, Mexico is classified among the low-performing countries (CCPI, 2024)⁴. These figures take shape in the quality of life of Mexican people that need to grapple not only with social inequality, violence and criminal gangs, but also the effects of climate change that are amplified by corrupt politicians.

Corruption broaden climate change effects in Mexico

Mexico is committed to fight climate change, and certainly, it can also take some credit for the United Nations climate summit that it was hosted in Cancún back in 2010, which mandated the creation of the Green Climate Fund, a multilateral fund for rich countries to support developing countries to reduce their emissions and prepare them for climate change's consequences (Montalvo, 2015).

According to the Climate Change Perfomance Index report (CCPI) Mexico holds a narrative addressed to reduce emissions by 35% in 2030 compared with the baseline, and announcing its commitment to achieve net-zero emissions by 2050. However, the CCPI-2024 report notes that the implementation is not happening at the required pace, because current policies favour fossil fuels. For example, subsidies for fossil fuels, mainly oil, increased in 2021 and 2022. The government has strengthened the company Mexican state-owned Petroleum/Petróleos Mexicanos (PEMEX), which prioritizes fossil fuels. The government also bought a refinery in Texas and is building another one in Mexico domestically, which clearly contradicts the need to phase out fossil fuels (CCPI, 2024).

The contradiction between the narrative and the compliance happens in many fields. A case in point is the intensive deforestation in Mexico, which operates in many cases without legal regulations. Mexico has 138.7 million hectares of forest, but each year an average of around 208 thousand hectares are lost according to official data. For example, pine and oak trees known as oak forests, which occupied 43.96 million hectares, by 2016 they are at 32 million, and they occupy 16.4 percent of the national territory. Thus, in 20 years México has lost a surface of forest equivalent to the state of Yucatán –south of Mexico that accounts with 800Km2-. Tropical forests originally covered 3 million hectares of the Mexican territory, by 2023 they have been reduced to 1.8 million (Enciso, 2023), which means that Mexico has lost 63% of its forest (Ramírez, 2016).

Deforestation is observed in many parts of Mexico, mainly in the Yucatan Peninsula, since Campeche is the state that has lost the most surface area due to the increase in crops such as transgenic soybeans and the growth of the African palm. The increase in avocado orchards in Michoacán and Jalisco contribute also to deforestation, as well as tourism developments in the Riviera Maya. Besides, on the coasts of Oaxaca and Guerrero, southwest of Mexico, tourism projects continue to grow. In Jalisco –western part of the country- and Sinaloa –northwest of Mexico-journalist have identified a serious problem with the sales of the ejido lands–communitarian lands dated from Aztec pre-hispanic ownership- as well as in the peninsulas of Baja California and Yucatán (Enciso, 2023).

⁴ The CCPI reports climate mitigation based on four categories: Greenhouse gas emissions (40% of the overall score), renewable energy (20%), energy use (20%) and climate policy (20%) (CCPI, 2024).

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Deforestation in Mexico is operated in several cases by criminal gangs and protected by local politicians. The criminal have different interest such as selling lands for real estate, control over territories or illegal sale of wood. A case in point, almost all the residents of San Miguel Topilejo, southern of Mexico City, ask that their name be protected for fear to repression, when reporting loggers operating in the area. The criminals do not mess around. A 58-year-old local driver says he was shot in the abdomen in November 2022 once he and his friends tried to stop loggers. Previously, he had to leave his community for more than a year because his family had been threatened after protecting the trees in his community (Verza, 2023).

In Mexico, many of the environmental activists are farmers, who work on private or communal lands, and they are the target of criminals, who have high caliber weapons⁵. Local indigenous communities have strong attachment to the forests; however, they cannot confront the powerful criminals that can kill, rape and torture anyone who oppose to their power without any mercy. Global Witness counted 54 murders in 2021 due to green advocacy. In 2023, two environmentalists were murdered in the State of Mexico, in a protected area near the Iztaccihuatl and Popocatépetl volcanoes. One of them ran a research center at a public university and he was attacked with an axe (Verza, 2023).

Different gangs of the organized crime have been identified in the destruction of forests in: Campeche (Los Zetas); State of Mexico and Morelos (La Familia Michoacana) and Michoacán (Los Caballeros Templarios). In Ocosingo, Chiapas, the trafficking of precious woods is recorded (Ramírez, 2016).

Similar scenario, it is experienced in the area of the landfill of solid waste sites that get generous governmental contracts to operate without complying with all regulations thanks to the political connections in the Mexican government. For example, the Bicentennial Sanitary Landfill, property of the company Tersa del Golfo de C.V, installed in 2010 on community lands of the Ejido Santa María Tianguistengo, located in the Municipality of Cuautitlán Izcalli, the state of Mexico, was granted by the government 47 hectares to operate. According to the report on Inventarios de Residuos Sólidos Urbanos de la Ciudad de México (IRSU)/the urban solid waste inventories of the City of Mexico, the company Bicentennial Sanitary charged in 2018 to the government 192 Mexican pesos (around 12.8 US dollar) for each ton and in 2019 increased the price to 211 Mexican pesos (around 14. 06 US dollar). Besides the Secretaría de Obras y Servicios de la Ciudad de México/ the Secretariat of Works and Services of the City of Mexico granted another contract for 106 million 642 thousand Mexican pesos (around 7,110 million of US dollar), despite not complying with health regulation, because human settlements such as the neighbourhood, Los Ailes, which has 2,368 inhabitants, are located a few meters away. This population not only lives in extreme poverty, but also suffers from various diseases from atopic conjunctivitis, respiratory diseases to cancer and congenital malformations (Cordero and Castro, 2023).

It is worthy to mention that landfill sites generate gases such as methane and carbon dioxide, also called greenhouse gases⁶. Landfills also generate

⁵ The production and trade of US gun has different impacts in Mexico. The entrance of US guns into Mexican territory has been more notorious, particularly after the former Mexican president Felipe Calderón (2006-2012), declared "the war on drugs" in December 2006. Currently, 70% of weapons confiscated in Mexico come from the US (Nieto, 2021).

⁶ It is key to understand the concentrations of greenhouse gases and other pollutants in the atmosphere to which climate is sensitive, in the years to come. These concentrations depend on their emissions from various sources, natural as well as man-made (UNITAR, 2015: 4).



leachate/lixiviado that contaminates soil and water. These biogases also pollute the air that reaches Mexico City.

Other cases of corruption include the complicity of the authorities of the Morelia city council, in the state of Michoacán, in central Mexico, when they granted permits to the company Veolia, formerly Proactiva, to operate without complying with the regulations and providing protection to this company when it incurred in fraud. This company caused property damage to the municipality for around 103 million Mexican pesos (around 6,867million US Dollar) between 2010 and 2018. According to the Fiscalía Especializada en Combate a la Corrupción (FECC)/Special Prosecutor's Office in Combating Corruption, the Veolia company would have altered the records of the number of solid waste collection vehicles that entered the landfill, the capacity of the tons of garbage collected, and violated many regulations in place in order to increase costs for the Michoacán city council by up to 40 percent (Alfaro, 2020).

Another similar case happened in the state of Veracruz, located in eastern Mexico, during the government of Javier Duarte de Ochoa (2010-2016), the Secretariat of the Environment of Veracruz (Sedema) endorsed the construction of the landfill for solid waste for the city of Veracruz, in the municipality of Medellín, and even certified its existence. But there is no landfill, it is just an open dump that since 2011 has affected the life of five communities in the region and has represented income of more than 114 million pesos (around \$7,6 million US dollar) for the company Procesadora de Residuos Veracruzanos S.A. of C.V./ Processor of Veracruz waste (Prever), (Hernandez, 2017).

The corruption that permeated the administration of Duarte de Ochoa, who was accused of complicity with organized crime, not only affected the public health system and state finances, but also encouraged the environmental destruction that has continued in the state of Veracruz under the government of Miguel Ángel Yunes Linares (2016-2018) (Hernandez, 2017).

Several landfills located throughout the country are in similar situation, without forgetting that the separation of organic and non-organic waste is not fully implemented in the 32 states compiling Mexico, which makes the waste processing more difficult.

It is reported that environmental degradation has caused 15 thousand dead a year, and drag to poverty and vulnerability to 28 million Mexican people, without mention all people that have fallen ill as a result of the pollution in the environment (Ramírez, 2016) People from Mexico city live submerged in air that is harmful to health, even when official reports consider it to be acceptable. High levels of ozone concentration and toxic gases from different sources such as open landfills expose citizens to cardiovascular diseases, diabetes and cancer among others illness (Guillén, 2022).

Final comments

Mexico faces a huge list of challenges to overcome the effects of climate change and environmental degradation that is aggravated by corruption. Environmental degradation costs to Mexico the equivalent of 4.6% of its national GDP, the equivalent \$1 177,969 millions of Mexican pesos each year (about \$78,532 million US Dollar). During 2021, the most expensive cost was air emissions, soil degradation and urban solid waste (García, 2022).

Many programs allocated to alleviate the climate change effects and environmental degradation are trapped into political corruption. Without forgetting, organize crime groups that target the natural resources; and the lack of



environmental education among citizens particularly the most vulnerable sectors of society make the situation more complicated.

For example in 2004, the former senator Jorge Emilio González, the 43-year-old son of the Ecologist Green Party of Mexico's founder, Jorge González Torres, was filmed apparently negotiating a \$2 million US dollar bribe to help secure permits for a new hotel complex in Cancún. The same Green Party has received a fine for 180 million Mexican pesos (around £7.9 million /\$11.7 million US dollar) for breaching electoral campaign rules in the elections in June 2021 (Tuckman, 2015).

The list of green corruption cases involving politicians, public servants, local representatives in green crimes are endless, which accelerate the climate change effects in Mexico and the environmental deterioration. Not to mention, the criminal gangs that also target the same natural resources a source of revenues.

Public spending on environmental protection has fallen significantly in recent years; while in 2011 it represented 0.92% of Mexico's GDP, by 2021 it was reduced to 0.45 percent (García, 2022).

The Mexican government has expressed its limited capacity to address environmental crimes linked to criminal groups on illegal logging, overexploitation of aquifers, wildlife trafficking and waste management that are among the most frequent green crimes that are happening every minute.

Mexico has huge challenges ahead such as make accountable institutions that deal with climate and environmental finances and safe this money from corruption, fight organised crime, particularly those groups whose activities are related with the green crimes, since the consequences are enormous not only in economic terms, but also for animal lives, vegetation, forestation, water supply, and human life. Climate change effects in Mexico are multiplied due to the systemic corruption prevailing in the country.

There is also, the "lack of an environmental culture (internalization) of the costs of environmental degradation among the population", as well as "the absence of transversal public policies" that can tackle different areas and social sectors (Ramírez, 2016), and the excessive waste of drinkable water and other natural resources.

The social inequality prevailing in Mexico is also reflected in the access of natural resources and quality of life, which is generating a green or eco-inequality (Nieto, 2023), since the most vulnerable people live close to the landfills, irregular settlements that do not have access to drinkable water, garbage collection or public services. They are people who are more expose to breathe toxic air. These social groups also are more likely to suffer skin problems, eyes diseases, respiratory illness, cancer and other rare diseases. Therefore, they life expectancy is shorter in comparison to wealthy people, as well as their quality of life that revolve in poverty, illiteracy and illness. Not to mention, their vulnerability to be the target of the organised crime groups. Violence and human trafficking are also part of their reality, and climate change effects are worsening their situation.

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