

#TOXITOURMEXICO



**TRANSNATIONAL CORPORATIONS
AND FREE TRADE IN MEXICO**
CARAVAN ON THE SOCIAL AND
ENVIRONMENTAL IMPACTS

With special thanks to Andrés Barreda, Primavera Téllez and the organising team in Mexico for making the Caravan #ToxiTourMexico possible, as well as to the affected communities, that resist and build alternatives to corporate power.

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October 2021

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PUBLISHED BY:

Acción Ecológica
EHBildu
Ekologistak Martxan
ENCO
Goliathwatch
México vía Berlín
Multiwatch

Oficina EcuMénica por la Paz y la Justicia
Observatoire des Multinationales
Observatorio Petrolero del Sur
Taula per Mèxic
The Left in the European Parliament
TRADENER
Transnational Institute
Unión de Afectado/as por Chevron Texaco
Zentrum für Entwicklungsbezogene Bildung (ZEB)

With contributions from Corporate Accountability



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Supported in part by a grant from the Open Society Foundations

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#ToxiTourMexico Caravan's visit to energy mega-infrastructures in the Mezquital Valley.

Photo: Martín Álvarez Mullally, OPSur

EXECUTIVE SUMMARY

Over the last thirty years, Mexico has become one of the main industrial paradises on the planet, meaning one of the **most advanced laboratories for free trade and deregulation**. The diversion of power has intensified and become more sophisticated premised on the need to attract investment at all costs for “development” and job creation, under trade agreements such as the North American Free Trade Agreement (NAFTA) or the EU-Mexico Free Trade Agreement. A regime has been imposed, in which the law allows environmental, social and labour self-regulation by transnational corporations. Much of Mexico’s territory has been subjected to the development of dense, interconnected industrial corridors, where high-risk industries, extensive agribusiness and extractive industries have proliferated. These sites are located alongside towns and cities with no monitoring of their impact on the health of local people. They have become what V. M. Toledo, Mexico’s former Minister of the Environment, has described as “environmental hells”.

The **“Caravan on the social and environmental impacts of transnational corporations and free trade in Mexico”** (#ToxiTourMexico) was an initiative taken forward by Mexican civil society organizations linked to the Asamblea Nacional de Afectadas/os Ambientales de México (ANAA, or National Assembly of Environmentally Affected Peoples) and the Transnational Institute. Members of the European Parliament and the Parliament of the Basque Country, a senator from the State of Minnesota, and activists and scientists from Europe, the United States and South America participated in the tour. The Caravan travelled more than 2,500 km in December 2019, engaging directly with near fifty organizations of affected peoples in six regions of Mexico.

The international observers were able to see for themselves a small proportion of the real **social and environmental devastation** caused by neoliberalism in this country. They saw evidence of the extent to which the most industrialized regions of the country are characterized by systematic air, water and soil pollution, compounded by unbridled urbanization and the proliferation of landfill sites and dumping grounds for highly toxic waste. This has led to a **health and environmental emergency**, in which the numbers of people dying due to diseases likely to be associated with corporate operations in different sectors are overwhelming. The Caravan also found that for local people, the development of the industrial corridors has taken place against the background of violent land grabs, depriving them of their means

of economic, social and cultural subsistence, destroying their health and the very fabric of their communities.

In the **Santiago River Basin**, large areas are occupied by industrial manufacturing plants, agribusiness and urban centres. These are connected to the two biggest industrial corridors in the country: Toluca-Lerma, where more than 1,000 manufacturing corporations are operating, and Ocotlán-El Salto, home to around 700 corporations, mostly in the metalworking and metallurgy, chemical and pharmaceutical, electronic, automotive, and food and beverage industries. The basin also receives waste from the Guanajuato industrial zones and the oil refinery in Salamanca. Over half a million people, or one third of those living on the shores of Lake Chapala and the Santiago River, are directly exposed to environmental pollution. Scientific studies on water quality have confirmed the presence of 1,090 pollutants in the river and found that as many as 94% of the factories fail to comply with the standards on waste dumping, even though these are notoriously lax. A study of child health made public during the Caravan's visit found traces of arsenic in 40% of children in Juanacatlán and lead in 93%. Cadmium was found in 98% of the children in El Salto. The transnational corporations operating in this basin include the German companies Continental, Siemens, ZF and Voit; the Swiss corporation Nestlé; and the Dutch companies DSM and Nutreco.

In the **Independencia River Basin** (state of Guanajuato), local organizations have revealed the impacts caused by export-oriented agribusiness producing for the US market, which are affecting half a million people. As a result of the overexploitation of the aquifer for more than thirty years, the water drawn from it contains fluoride, arsenic, sodium, manganese and other minerals in concentrations that are harmful to human health. The municipalities in this region with the highest concentrations of these elements are also the ones with the highest incidence of chronic kidney disease (CKD), kidney transplants and dental fluorosis. In the corridor between Celaya and León, major industrial accidents have taken place, one of which poisoned as many as 6,000 people. Local organizations in the city of Guanajuato also told the Caravan about the damage to health and the environment caused during the campaigns to combat dengue fever, when people are exposed to pesticides that PAN International classifies as highly hazardous.

In the **Tula River Basin in the south of the Mezquital Valley**, the Caravan was able to see the overlapping impacts caused by the core of the nation-

al cement industry, extractive industries, industrial parks, a large refinery, a thermoelectric plant, and industrial and urban wastewater dumped into the Salado and Tula Rivers. This water is used downstream for agriculture. The total number of people affected is estimated at one million. The main health problems reported include severe headaches, nausea, vomiting, throat and eye irritation, abdominal pain, breathing difficulties and fainting. Illnesses reported in the area include leukaemia, different kinds of cancer affecting all organs, congenital abnormalities, endocrine disorders, immunological disorders, kidney failure and respiratory diseases. The corporations operating in this region include the Franco-Swiss company LafargeHolcim.

In the **Atoyac-Zahuapan basin**, where new and old industrial corridors intertwine, 20,400 corporations are operating. In response to the complaints local organizations have filed with the Comisión Nacional de Derechos Humanos (CNDH or National Human Rights Commission) since 2011, it issued a Recommendation (10/2017) which stated that the main causes of pollution were the discharge of untreated municipal and industrial waste into the rivers; improper disposal and collection of solid waste; rapid population growth and uncontrolled industrialization in the region. According to official figures, 26,477 people died of cancer, 4,379 died due to kidney failure, and 906 miscarriages were reported between 2002 and 2016. The mortality rate for cancer in the Atoyac-Zahuapan basin as a whole is 13.5 times higher than the national average. Furthermore, between 2015 and 2019 a person died every two and a half hours from diseases likely to be associated with environmental pollution. The CNDH identified a high incidence of the following conditions in the region: diarrheal diseases, chronic endemic hydroarsenicism (or hydroarseniosis), genetic damage and predisposition to cancer related to exposure to dioxins and furans with genotoxic potential. It also established a correlation between exposure to volatile organic compounds and the presence of myeloid leukaemia. Volkswagen, Bayer and BASF are among the companies that have factories in the region.

In the **Libres Oriental basin**, where water is scarce, large industrial pig farms owned by the US-based corporation Granjas Carroll operate alongside Driscoll's greenhouses growing fruit and vegetables for export, Iberdrola's solar farms and an Audi car plant, which operates as an extension of the Volkswagen factory in Puebla. These industries consume huge quantities of water from the aquifer, but they also use hail cannons to prevent rain and

protect their crops, seriously affecting local small-scale farmers. Pollution associated with industry was also reported in this region.

The **North of the Isthmus of Tehuantepec**, the last region visited by the Caravan, is home to the Uxpanapa Industrial Corridor and one of the oldest and largest chemical and petrochemical industries in Latin America. The organizations of affected communities report air and water pollution caused both by the corporations' regular operations and when accidents and emergencies occur in the chemical industries. The international observers were also shown evidence of the consequences that open-air coke storage by the Catalan corporation García Munté Energía (GME – ADN Energía) is having on human health and the environment.

Even though they are aware of how local people are suffering in these environmental hells, not only have successive **Mexican governments at the municipal, state and federal level hitherto failed to act**, they have also concealed the environmental, labour and social impacts, ignoring the protests and claims of the people affected. They have also worked to contain social discontent by means of policies to criminalize and repress protest, as well as failing to prevent the terror being sown in community organizations by various criminal groups. Furthermore, they have facilitated the implementation of new industrial and infrastructure megaprojects that only increase the risks to local people.

It is also important to mention the **governments of European countries and the United States**, where many of the transnational corporations operating in Mexico's industrial paradises have their headquarters. These governments provide public support and funding for the international operations of these transnationals in the form of insurance, credit and technical assistance, with no control or guarantee that environmental and human rights standards will be respected. Neither do they accept any responsibility for the social and environmental conflicts that arise. Instead, they pressure other countries to sign free trade and investment protection agreements. A case in point is the renegotiation of the agreement between Mexico and the European Union, thanks to which Mexico is set to be the first Latin American country to sign an investment protection agreement with the European Union as a whole. If this agreement is approved, it will ring-fence the corporations' power still further and could hamper the implementation of policies committed to human rights in Mexico.

One of the things that the Caravan's international observers found most striking is the **capacity to resist and organize protest developed by the affected communities** in the six regions they visited. It was clear that despite the destruction of their territories and the constant attacks on their lives and health they have endured for decades, they have been able to monitor the impacts, developed a significant capacity to conduct collective analysis, and forged links with a few committed scientists who have provided backing for the community's assessments. In the midst of the COVID-19 pandemic in 2020, and taking advantage of the visibility they had achieved, partly thanks to the Caravan, these organizations kept up the pressure on the Mexican government. And in 2021 they achieved a historic step forward, which could set a precedent for other regions both in Mexico and around the world. They have obtained a commitment from top-level authorities in the ministries of the environment and health and the Consejo Nacional de Ciencia y Tecnología (CONACYT or the National Council of Science and Technology) to work jointly under a Coordination Framework Agreement. This will lead to action being taken on what have been declared **Environmental and Health Emergency Regions**, under the Programas Nacionales Estratégicos de Agentes Tóxicos y Procesos Contaminantes (PRONAC-Es or National Strategic Programmes on Toxins and Pollution) that focus on health and water. Government compliance with its commitments here is as urgent as it is necessary, and must be monitored by civil society in Mexico and internationally. Therefore, the report includes detailed recommendations in Chapter 5.



[#ToxiTourMexico](#) Caravan's visit to the Atoyac-Zahuapan River basin, December 2019

Photo: Martín Álvarez Mullally, OPSur

ON THE TRAIL OF SOCIO- ENVIRONMENTAL DEVASTATION

1.1 #TOXITOURMEXICO CARAVAN

From 2 to 11 December 2019, the **Caravan on the social and environmental impacts of transnational corporations and free trade in Mexico (#ToxiTourMexico)** visited industrial corridors where transnational corporations from the United States (US) and Europe, among other countries, have established their operations. Two members of the European Parliament, one member of the Parliament of the Basque Country, a senator from the State of Minnesota (US), scholars, scientists, journalists and representatives of social organizations and research centres from Argentina, the Basque Country, Catalonia, Ecuador, France, Germany, Mexico, The Netherlands and the US participated in the tour (see appendix 1). The Caravan was also accompanied by scholars from the Unión de Científicos Comprometidos con la Sociedad (UCCS) and representatives of the Secretaría de Medio Ambiente y Recursos Naturales (Semarnat or the Ministry of Environment and Natural Resources). During the tour, the Caravan directly engaged with almost fifty organizations of affected peoples from different territories (see appendix 2).

This initiative was started by organizations linked to the Asamblea Nacional de Afectado/as Ambientales de México (ANAA, or National Assembly of Environmentally Affected Peoples)¹ and the Corporate Power Team of the Transnational Institute (TNI). ANAA is a network of 130 indigenous and peasant organizations, trade unions and NGOs working on social and environmental justice conflicts in Mexico. It launched the call for the session of the Mexico Chapter of the Permanent Peoples' Tribunal (PPT – Mexico Chapter), held between 2011 and 2014, which put the North American Free Trade Agreement (NAFTA) on trial for serious human rights violations.² TNI is a member of the Global Campaign to Reclaim People's Sovereignty, Dismantle Corporate Power and Stop Impunity,³ an international network of social movements and organizations, trade unions and affected communities that are promoting a legally binding instrument (binding treaty) at the United Nations (UN) that will force transnational corporations (TNCs) to respect human rights.⁴

The Caravan's main objectives were:

1. Give greater visibility to the social, labour and environmental impacts and human rights violations linked to the operations of TNCs and free trade agreements in the following regions:
 - ▶ Santiago River Basin, Jalisco
 - ▶ Independencia River Basin (in the north of the state of Guanajuato and the city of Guanajuato)
 - ▶ Tula River Basin in the south of the Mezquital Valley
 - ▶ Atoyac River Basin in Tlaxcala and Puebla
 - ▶ Libres-Oriental aquifer in the mid-eastern part of the state of Puebla
 - ▶ Coatzacoalcos River Basin and the network of industrial cities in the north of the Isthmus of Tehuantepec and Jáltipan.
2. Strengthen ties between social and environmental struggles in different regions (Latin America, Europe and the US).

1 See: <https://www.facebook.com/Asamblea-Nacional-de-Afectados-Ambientales-129993290460642>

2 The PPT session entitled the 'Mexico Chapter – on free trade, violence, impunity and peoples' rights' examined the impacts of 20 years of free trade. Close to 2,000 social organizations documented and presented approximately 500 cases demonstrating the abuse of power. The Tribunal ruled that NAFTA has caused the compulsory elimination of rural and urban populations by causing distortions in subsistence economies. Furthermore, the cases proved that there is a direct link between free trade and migration and exposed multiple rights violations, homicides (including murders tied to organ trafficking), kidnapping, extortion, sexual abuse and torture. The verdict confirmed the responsibility of the states of origin, transit and destination of migration and of the transnational corporations that benefit from this sinister framework (PPT 2014).

3 See: <https://www.stopcorporateimpunity.org/>

4 See: <https://www.stopcorporateimpunity.org/tratado-vinculante-proceso-en-la-onu/?lang=es>

During the tour, meetings were held with organizations of affected peoples in: El Salto and Juanacatlán (state of Jalisco); Dolores Hidalgo (state of Guanajuato); in the Atitalaquia, Atotonilco and Apaxco industrial parks (near the Tula and Seco Rivers, states of Hidalgo and Mexico); Villa Alta and Tlaxcala (state of Tlaxcala); city of Puebla and the Santa María Zacatepec community (state of Puebla), and Coatzacoalcos (state of Veracruz).

These places were chosen for their history of community resistance and the work being done to denounce violations in recent decades.

Map of the Caravan



The Caravan received extensive press coverage from major Mexican and international media outlets (see appendix 3).⁵ It ended with a press conference in Mexico City on 10 December 2019, International Human Rights Day.

The observers were taken aback by the **alarming state of environmental and health emergency** they found in the six regions they visited. As we shall see shortly, the visits helped to draw attention to the **system-**

⁵ Media coverage on the caravan can be found on the Internet by searching for #ToxiTourMexico and in Appendix 3.

atic air, water and soil **pollution**; the destruction of rivers, lakes, forests and farmland; uncontrolled urbanization; the proliferation of landfills and dumping sites for extremely hazardous waste and the damage to the health and fabric of the communities in regions which host the operations of TNCs protected by the trade and investment regime. According to toxicological reports revealed during the tour, the residents of these regions suffer from various diseases such as liver, kidney, skin and stomach cancer, leukaemia, genetic mutations, miscarriages, kidney failure and dental and skeletal fluorosis. All these illnesses may be linked to the operations of TNCs from a wide range of sectors and the pollution they generate.

In 2020 and 2021, civil society organizations, members of the European Parliament (MEPs), the Basque Parliament and the Senator of Minnesota, who participated as international observers in the Caravan, coordinated their political interventions in their countries. The large majority of these activities were carried out online due to the pandemic, with the participation of the organizations of affected peoples. For instance, the Caravan's findings were presented in Ecuador in an event organized by Acción Ecológica, Unión de Afectadas/os por Chevron Texaco and Confederación de Nacionalidades Indígenas del Ecuador (CONAIE).⁶ In Argentina, the organizations Campaña Agua para la Vida and Museo del Hambre hosted a similar activity.⁷ In Europe, online conferences were held in coordination with the offices of MEPs Leila Chaibi and María Eugenia Rodríguez Palop,⁸ PowerShift and the Transnational Institute during which the impacts of free trade were discussed as part of a broader reflection on the new agreement between the European Union and Mexico. In Germany, México vía Berlín put together an online photo exhibition⁹ and in November 2020, Oficina Ecuménica por la Paz y la Justicia from Munich, Coordinadora Alemana por los derechos Humanos en México, México vía Berlín, Misereor and other organizations organized an online tour for the public in six German cities.¹⁰ In this country, meetings between affected peoples and German authorities were also held. In Spain, the results were presented in February 2021.¹¹ Furthermore, the testimonies of the affected peoples were heard at the UN Human Rights Council during the 6th Session of the Intergovernmental working group on the binding treaty for transnational corporations and other business enterprises with respect to human rights in October 2020.¹²

1.2 ADVANCES IN MEXICO

In regard to the **political impact** of the work done by the local organizations, the former Minister of the Environment and Natural Resources (Semarnat), Victor M. Toledo, responded positively to the Caravan's initial findings presented at a meeting held in the ministry's office with the observers, affected peoples and even members of the national and international press on 11 December 2019.¹³ The day after the meeting, during the official daily press conference of the Presidency of the Republic, To-

6 See: <https://twitter.com/AcEcologica/status/1232639585533988865>

7 See: <https://youtu.be/itkBUal0PSg>

8 See for example: <https://www.stopcorporateimpunity.org/25-mayo-el-nuevo-acuerdo-ue-mexico-no-es-oro-todo-lo-que-reluce/?lang=es>

9 See: <https://mexicoviaberlin.org/toxi-tour-es/>

10 See: <https://www.centrofrayjuliangarc.es.org/mx/2020/11/08/emergencia-ambiental-en-mexico-coalicion-apela-a-las-em-presas-alemanas/>

11 See: <https://www.youtube.com/watch?v=g4X4DeApfIM>

12 See for example: <https://youtu.be/EoliuNxG7yg>

13 See: <https://www.gob.mx/semarnat/prensa/trabajara-semarnat-con-afectados-de-seis-regiones-del-pais-con-altos-impactos-ambientales-y-de-salud>



^
Presentation of the #ToxiTourMexico Caravan's initial findings to Mexico's former Minister of the Environment, V. M. Toledo, 11 December 2019.

Photo: Martín Álvarez Mullally, OPSur

ledo publicly informed Mexican President Andrés M. López Obrador of the Caravan's findings.¹⁴ It is important to note that Toledo had already publicly acknowledged the existence of multiple environmental hells in Mexico in an article he wrote, which had been published by the national press on 30 July 2019.¹⁵ Since then, various meetings have been held to develop and further this political work. The highlights of this work are presented below.

On 21 January 2020, the organizations of affected peoples presented 12 proposals to Semarnat. They officially requested that Semarnat recognize each region as an environmental emergency zone and sign a list of commitments. The affected communities verbally asked Semarnat to organize a follow-up meeting with the Minister of Health and the Director of the Consejo Nacional de Ciencia y Tecnología (Conacyt or National Council of Science and Technology) to explore the possibility of having these regions recognized as health emergency zones as well to ensure that an interdisciplinary approach would be used to address the issues (Caravana Toxi-TourMexico 2020a). Semarnat made a commitment to develop ecological restoration programmes.¹⁶

On 3 March of the same year, high-level officials from other sectors of the government such as the Ministry of Health (SSA), Conacyt, Procuraduría de Protección al Ambiente (Profepa or the Federal Bureau of Environmental Protection), the Comisión Federal para la Protección contra Riesgos San-

14 See: <https://www.jornada.com.mx/2019/12/13/politica/012n1pol>, and <https://www.youtube.com/watch?v=rFCs-oIRdCXw>

15 See: <https://www.jornada.com.mx/2019/07/30/opinion/016a1pol>

16 See: https://www.gob.mx/semarnat/prensa/iniciara-semarnat-elaboracion-de-programas-de-restauracion-ecologica-en-seis-regiones-del-pais?fbclid=IwAR0E6GB6sVYyGsDGC9O65xY4pmwx-j5pLcPPP83Xj3n-2d4D-sOvu_U-LQOo

itarios (Cofepris or the Federal Commission for Protection against Health Risks) and Conagua (National Water Commission) joined the dialogue. The six affected regions submitted a document entitled 'Guarantees for due process in inter-institutional negotiations on the social, health and ecological restoration of the environmental hells'. The participants agreed to establish an **Inter-institutional Coordination Group (GCI** for its acronym in Spanish) composed of Semarnat, SSA and Conacyt to drive the efforts to fully resolve the pollution and health problems in the **environmental emergency regions (EERs)**. The affected communities also voiced their concern about the new megaprojects in the region and the risk that these projects will worsen the problems of pollution, loss of biodiversity, water stress, harm to health and land grabbing.¹⁷ Furthermore, an essay entitled 'ToxiTourMexico: a geographical record of socioenvironmental devastation' was published in the first edition of Semarnat's *Diálogos Ambientales* magazine, which recognized the seriousness of the environmental situation (Barreda 2020a).

The next meeting was held in May at the onset of the COVID-19 pandemic. It was the first time Health Minister Jorge C. Alcocer participated in a meeting. It was thus the perfect occasion to highlight the interconnection between the health of the environment and human health and as a result, the greater risk that the pandemic posed to the population in the six regions. The Health Minister reported that as of 6 May 2020, 78% of the deaths caused by COVID-19 appear to be concentrated in some of the regions that the Caravan visited or ones that are similar.¹⁸

In July 2020, the organizations of affected peoples submitted to Mexican authorities a large, multi-disciplinary dossier containing scientific research, government information and data collected by the community organizations over the last forty years (Caravana ToxiTourMexico 2020b). The Ministers of Health and the Environment and Conacyt Director Maria Elena Álvarez-Buylla proposed the signing of an agreement and the development of an inter-ministerial environmental health programme to ensure the continuity and legal recognition of this work.¹⁹

Thanks to pressure from local organizations, Conacyt moved ahead with the work on what is now called "Regiones de Emergencia Sanitaria y Ambiental" (RESAs or Environmental and Health Emergency Regions) via the Programas Nacionales Estratégicos (ProNacEs) (Strategic National Programmes) on toxic agents and pollution in relation to health and water.²⁰ According to Lara (2021), pollution and the overexploitation of natural resources and the environment overlap in these regions, generating ecological imbalances that increase the vulnerability of human, plant and animal populations. The pollution affects the air, soil and water and the population is exposed to toxic substances both in the workplace and at home. This happens in places where governments and environmental authorities allow polluting companies to operate. In the RESAs, land and common natural resources are expropriated, leading to the fragmentation of local economies (see diagram 1).

17 See: <https://www.gob.mx/semarnat/prensa/autoridades-y-representantes-del-toxitour-establecen-canales-de-coordinacion-para-garantizar-el-cumplimiento-de-acuerdos>

18 See: <https://www.gob.mx/semarnat/prensa/enfrena-mexico-doble-crisis-sanitaria-por-el-covid-19-y-por-degradacion-ambiental?idiom=es>

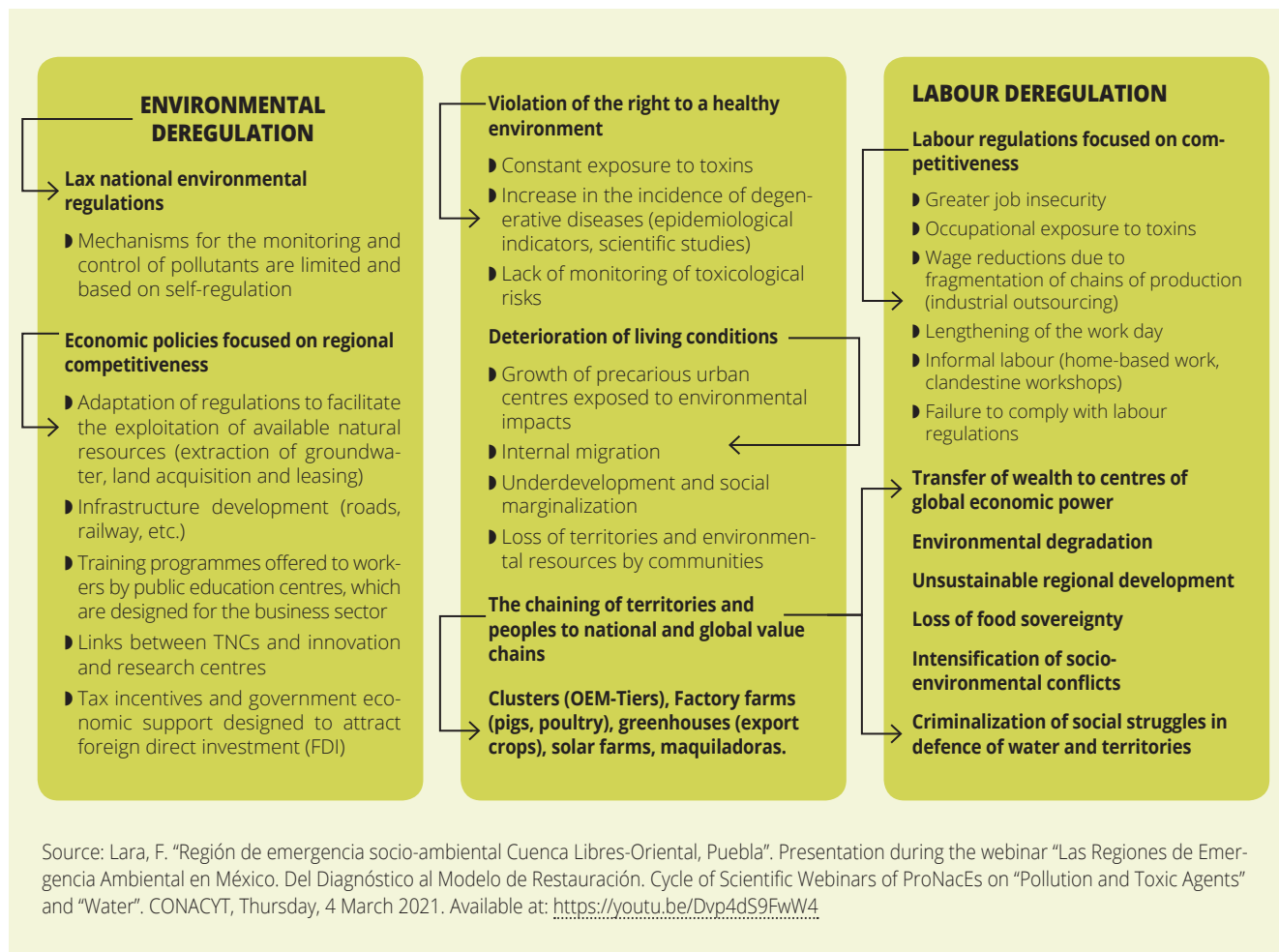
19 To give continuity to the commitments made to the affected communities, the authorities proposed:

- The development of a system that allows people to report harm to the environment or health caused by continuous human activity;
- That Conacyt create a system that conducts scientific research on the main water, technological, environmental and epidemiological problems affecting the regions;
- The establishment of an interinstitutional system of deliberation with the communities and organisations of the regions for the full and participatory restoration of the affected regions;
- An effective long-term strategy built by a multiplicity of voices of the peoples and scientists that help identify the nodal points for the design of strategic policies on toxicology, environmental health and the environment and of solutions for deeply-rooted structural environmental health problems.

See: <https://www.gob.mx/semarnat/prensa/se-firmaran-convenios-para-dar-continuidad-y-certeza-a-los-compromisos-con-organizaciones-de-toxitour>

20 See: <https://conacyt.mx/pronaces/>

■ **Diagram 1. Matrix of the generation and reproduction of Environmental and Health Emergency Regions (RESAs)**



The appointment of a new head of Semarnat on 2 September 2021 caused delays in the work being done on a regular basis. After the cabinet change, the six affected regions of the Caravan sent two letters: one requesting the resumption of the joint working sessions between the GCI and the environmentally affected communities, and the other, welcoming the new Environment Minister María Luisa Albores and informing her of the work they had carried out with Semarnat over the last six months. They also asked her to resume the activities of the GCI and to stop conceiving the six affected regions as zones to be sacrificed for the sake of economic growth in the country, as they refused to subsidize the profits of a few with their own health and lives any longer. They also mentioned in the letter that in several of the regions, Semarnat had reached agreements with groups, organizations and specialists but without the participation of the communities or the collective bodies they are working to build. Three months passed and as they still had not received a response, the Caravan sent another letter demanding the resumption of the working sessions with the GCI. In addition, they demanded that their right to petition, guaranteed by

article 8 of the Constitution of the United Mexican States, be respected, as well as a response to their request and another online meeting.

Semarnat's response to these requests arrived at the beginning of January 2021. The communiqué stated that they had made progress on the commitments to the Caravan, but they were unable to hold the meeting requested in the month of December 2020. They proposed an online meeting in the second half of February 2021, which finally took place on 9 March 2021. It was the first meeting of the year with the GCI and the new Minister of the Environment María Luisa Albores. During the meeting, the members of the six affected regions read four documents (which they later sent to the offices of the three ministries): two were in response to the agreements in Jalisco and Tlaxcala reached without the communities' consent; one gave a general overview of the situation in the six regions and the other presented their demands. They also sent another letter requesting a meeting at the end of August 2021 with the GCI, which was held on 31 August. At the meeting, the Framework Agreement on Coordination between Semarnat, the Ministry of Health and Conacyt was presented, which had already been signed by the heads of the three government ministries.²¹ This agreement not only includes important commitments, but also defines a methodology that could lay the foundations for a process that responds to the main demands of the affected peoples while guaranteeing their participation.

How and whether this agreement will be implemented will depend on the political will of the Mexican government and implementing it will be a major challenge. To overcome such a challenge, social pressure both in Mexico and abroad is essential.

1.3 OBJECTIVE OF THE REPORT

Considerable progress has been made in Mexico since the Caravan. Even so, the international observers from the Caravan continue to monitor the process in order to provide the organizations of affected peoples the support they need to ensure that Mexican authorities honour their commitments. The devastating state of affairs observed by the Caravan is directly related to the free trade and investment regime in which Mexico is immersed, as the regime has attracted a considerable number of US, Canadian and European TNCs to the industrial corridors visited by the Caravan. Therefore, the goal of this report is to **support political work on the responsibility of European transnational corporations, in particular**, in the social and environmental devastation in the six visited regions. It is set in a context where the signing and ratification of a new free trade agreement between Mexico and the European Union (EU) is a not-so-distant possibility, which would only make the situation worse.

The second chapter of the report focuses on the general framework of the trade and investment regime which allows socio-environmental dev-

21 See: <https://conacyt.mx/el-conacyt-la-secretaria-de-salud-y-la-semarnat-suscriben-convenio-en-favor-de-la-salud-y-el-equilibrio-ecologico/>

astation to occur in what can be referred to as “industrial paradises”. In the third chapter, we provide information on the impacts observed in the six regions and a summary of the on-site observations, studies available and the data collected by the affected communities themselves, as well as technical and scientific reports compiled by the affected peoples. Then, in the fourth chapter, we present concrete examples of European TNCs operating in the regions visited, as well as the socio-environmental impacts they have generated in other regions of the Global South. This chapter has been developed with the support of independent researchers and members of the European Network of Corporate Observatories (ENCO). Finally, we include conclusions and recommendations for authorities in Mexico, Europe and the US.



#ToxiTourMexico Caravan's meeting with the organizations of affected peoples from the Atoyac-Zahuapan River basin, December 2019.

Photo: Martín Álvarez Mullally, OPSur

INDUSTRIAL PARADISES IN THE SHADOW OF FREE TRADE

LUCÍA BÁRCENA MENÉNDEZ (TNI)

BETTINA MÜLLER (POWERSHIFT-TNI)

MANUEL PÉREZ ROCHA (IPS-TNI)

MÓNICA VARGAS (TNI)

The Caravan visited several regions along the “neovolcanic belt”,²² an area rich in water and mineral resources, fertile land, flora and fauna, where the most advanced Mesoamerican civilizations flourished for centuries before it became the base of the colonial economy. There is a connection between this region and the urban-industrial corridors included in President Ernesto Zedillo’s National Development Plan. The corridors were set up at the time of the signing of the North American Free Trade Agreement (NAFTA), in the mid-1990s, with the goal of linking the eastern US to the Pacific basin. The adoption of the free trade agreement led the government to relax environmental, social and labour regulations to attract investors by facilitating the entry of foreign and Mexican TNCs from the automotive, chemical, cement, food, textile and other industries into the region (Barreda 2020a). This is how genuine “**industrial paradises**”²³ for TNCs were created.

Box 1. Environmental legislation in Mexico: from simplification to corporate self-regulation

According to McCulligh (2019), during most of the era of import-substitution industrialization (1940-1982), there were no standards to control emissions into the environment. The first law regulating pollution was passed in the 1970s, but it was not until 1988 that the regulatory power of these standards was increased. Since the mid-1990s, though, environmental legislation has been constantly “simplified”. This is particularly true of regulations on discharges into bodies of water, which contain notorious gaps that allow numerous substances of industrial origin to go uncontrolled.

In Mexico, companies participate in the formulation and modification of environmental standards through the Comité Consultivo Nacional de Normalización de Medio Ambiente y Recursos Naturales (COMARNAT or National Advisory Committee on Environmental and Natural Resource Standardization). Almost half of its 45 members belong to business chambers or associations. McCulligh (2018, 178) calls this phenomenon “institutionalized corruption”, which is a system of ‘lax regulation, minimal enforcement, a dependence on self-regulation in the monitoring of discharges, and the regulatory influence or capture exercised by the private sector’. The system is sustained by a “myth of multinationals”, which claims that transnational corporations “automatically” comply with international environmental standards, over and above Mexican regulations, thus representing ‘a minor source of environmental damage’ (2017, iii).

22 According to Barreda (2020b), the neovolcanic belt is one of the nine macro-regions that has been “seriously damaged by the overexploitation of territories and natural resources, the overuse of infrastructure and the impacts on the health of the population that free trade and its industrial, agroindustrial, extractive and urban paradises have imposed over the last three decades”.

23 See Andrés Barreda’s intervention during the workshop entitled “Globalization of border control and the resistance of the peoples” (November 2018), referenced in Vargas (2019).

2.1 THE TRADE AND INVESTMENT REGIME AND THE DIVERSION OF POWER

The most important milestone in the process that led to the situation observed by the Caravan was the signing of NAFTA in the mid-1990s, when neoliberalism was on the rise.²⁴ Since then, Mexico has become one of the countries with the most trade and investment agreements in the world.²⁵ It should be noted that since NAFTA, foreign direct investment (FDI) in the country has been led by US corporations, which represented 38% of the total FDI in 2018 (CEPAL 2019, 63-64).

The negotiations and signing of NAFTA were met by strong resistance from a wide spectrum of Mexican civil society groups.²⁶ The most exhaustive assessment of NAFTA from a human rights perspective was carried out by the Permanent People's Tribunal (PPT) during the session entitled 'the Mexican Chapter – Free trade, violence, impunity and peoples' rights in Mexico' held between 2011 and 2014. Nearly 2,000 social organisations responded to the call for cases. The PPT examined over 500 cases of violations of human and collective rights in hearings focused on the issues of: violence against workers; environmental destruction and people's rights; violence against maize, food sovereignty and the autonomy of the peoples; repression of social movements and human rights defenders; disinformation, censorship and violence against journalists; femicides and gender violence; dirty war involving violence and impunity; migration, forced displacement and asylum; education, and the destruction of youth and future generations.²⁷

The Tribunal concluded that Mexico was in the midst of 'a widespread humanitarian crisis that affects broad sectors of the population and has led to a crisis of the state' (PPT 2014, 36). Moreover, according to Daniel Feierstein, member of the jury of the PPT - Mexico Chapter and international specialist on genocide²⁸, to implement NAFTA, a **socially destructive process was initiated with the goal of dismembering and destroying Mexican social fabric to impose a new model of extraction, production, and consumption**. This process involved the assassination of social and environmental leaders, peasants, indigenous peoples, journalists and human rights defenders, femicide and a social war disguised as the "war against drug trafficking". It is estimated that between 1997 and 2018, at least 400,000 people died as a result of violent incidents involving organized crime, with the complicity of different levels of government.²⁹ Furthermore, Feierstein argues that **socioenvironmental degradation** has caused extremely high levels of harm to health, which has increased the number of deaths in the territories. In legal terms, all these elements could fall within the scope of the United Nations Convention on the Prevention and Punishment of the Crime of Genocide, even though it would be difficult to prove this.

According to Andrés Barreda, a Mexican economist from the UCCS and one of the Caravan's coordinators, the consolidation of these industrial paradises was possible thanks to one element that is highly typical of

24 For an analysis on what nearly three decades of free trade have meant for Latin America, see Ghiotto and Laterra (2020).

25 See: <http://isds-americalatina.org/mexico/>

26 There is an extensive bibliography on the social and economic impacts of NAFTA; most of these references are posted on the Bilaterals.org website (see <https://www.bilaterals.org/?-nafta->)

27 For information on the sessions, go to: <http://permanentpeopletribunal.org/38-libre-comercio-violencia-impunidad-y-derechos-de-los-pueblos-en-mexico-mexico-2011-2014/?lang=es>

28 Interview with Daniel Feierstein in 'A Contracorriente', 12 March 2018 (see: <https://www.rompevientotv/?p=43291>).

29 See: <https://www.youtube.com/watch?v=9MCxwHEy0hc&index=4&list=PLwzDqMdprgdsK8Q77AOziaHm-1Fhwzrj3Z>

the trade and investment regime: **the structural diversion of power**. Barreda explains that this is not about mere abuses of power, nor structural corruption or law violations; it is much more than that. The structural diversion of power is when **the institutional framework is completely restructured through a complex process of institutional re-engineering**.

In this re-engineering process, the **entire legal system ends up in a subordinate position** and the executive and legislative bodies are reorganized. In Mexico, there has been a significant diversion of state power, which distorts the general interest of capital for the benefit of a few private capitalists. Once political, legislative, executive and judicial power has been diverted, economic power undergoes a similar process. As a result, **the state becomes an impunity-producing machine** with a growing capacity to prevent people from having access to justice. At the same time, a nucleus is formed to coordinate the extraordinary profits that generate the international capital flows of a group of offshore investors, who are searching for centres in the periphery that can offer them better conditions for exploiting labour and the environment thanks to deregulation, on one hand, and the international flow of the labour force, on the other. This allows capital to displace the social fabric of the peoples – whether in the places they are fleeing from, in transit or at their destination – like never before, thus lowering the price of labour.

This conceptualization of the diversion of power helps explain the land grabbing going on in increasingly scarce areas of occupation, the extraction of new strategic natural resources and the new ways of displacing and disciplining dispossessed peasants and workers using the culture of terror currently being systematized by military and paramilitary groups and organized crime. These criminal groups use the media to organize and seek to benefit the group of private investors who monopolize the control of the state (Barreda 2016 and 2019).

The verdict of the Permanent People's Tribunal described the abuse of power as:

(...) a transformation of the State apparatus which reinforces, outsources and brings its tremendous punitive capacity up to date and, at the same time, is definitively abandoning any concern for the well-being of the population, as it uses state power to further private interests, thus encroaching upon every one of the historic gains achieved by the peoples in their long struggle. This abuse of power is occurring at all levels – political, legislative, judicial and even economic – of the functioning of the State. It expropriates the state apparatus which, stripped of the features that are meant to justify its legitimacy (representation of the interests of the whole population), is now a hollow shell' (PPT 2014, 16-17).³⁰

³⁰ By way of illustration, the Tribunal concluded that over half of the amendments to the Mexican Constitution were adopted after NAFTA was signed. In 20 years of free trade (1994-2014), 238 amendments were made to different articles related to: 'the structure and scope of competence of public bodies, the territorial distribution of powers, the scope and content of municipal autonomy, electoral processes and the party system, citizen participation in the management of public policy, transparency and accountability, human rights, the review of constitutionality, national and public security, criminal justice policy and the administration and dispensing of justice, amongst other matters of key importance to the integrated development of the nation, the independence and democratization of Mexican society, to upholding the rule of law and the full exercise of the freedom and dignity of persons' (PPT 2014, 17).

In 2018, NAFTA was replaced by the United States-Mexico-Canada Agreement (USMCA)³¹. According to Mexican researcher Manuel Pérez Rocha, around 90% of the new treaty's content is the same as NAFTA's, which largely benefits TNCs. What is more, it includes clauses that directly violate Mexico's sovereignty over its economic policy³², namely the ones that maintained the investor-state dispute settlement system (ISDS) for disputes in the energy sector between the US and Mexico. It is thus clear that the new agreement will contribute to the consolidation of the diversion of power.

2.2 CORPORATE LAW VERSUS HUMAN RIGHTS IN THE NEW EU-MEXICO FTA

According to Basque jurist Juan Hernández Zubizarreta, the current trade and investment regime strengthens global corporate law, a body of law also known as *Lex Mercatoria*. In fact, the contracts and investments of TNCs are legally protected by a multitude of norms, agreements and treaties, but 'there are...no adequate counterweights or real mechanisms to control the social, labour, cultural and environmental impacts of their operations' (2015, 4). In sum: hard law applies to cases where corporate interests are threatened and soft law, when TNCs violate human rights. This framework has governed trade and investment relations between Mexico and the EU since the adoption of the Economic Partnership, Political Coordination and Cooperation Agreement, better known as "the Global Agreement" (GA), in 2000. The EU-Mexico Free Trade Agreement (EU-Mexico FTA) is the most important part of the GA and only NAFTA has had more severe impacts on Mexico than the FTA with the EU. Obviously, the agreement with Europe has contributed to the consolidation of European investments in this Latin American country, which accounted for 33% of total FDI in 2018; Spanish and German TNCs led these investments with 12% and 9%, respectively (ECLAC 2019, 64).

The EU-Mexico FTA was the first trade agreement that the EU signed with a Latin American country. It has received a great deal of criticism, as it was negotiated hurriedly and without proper review by political authorities at the time (Aguirre and Pérez Rocha 2007). It is important to stress that the trade dimension has always been the main objective of the agreement, which deregulated 95% of goods and services.

Even though the GA contains a democracy clause³³ and an article on cooperation on human rights issues, according to the ex-post impact evaluations of the implementation of the agreement prepared by ECORYS (2017, 161) for the European Commission and by Ioannides (2017, 4) for the European Parliament, these measures have proven insufficient. The democracy clause has never been invoked, despite the existence of numerous complaints from civil society on the impacts of European TNCs in Mexico (ECORYS 2017, 146)³⁴. These complaints were thoroughly examined dur-

31 See: <https://www.bilaterals.org/?trata-do-entre-mexico-estados&lang=es>

32 See: <https://www.bilaterals.org/?t-mec-una-oportunidad-perdida-para&lang=en>

33 The democracy clause calls for the respect of human rights and establishes sanctions in the event of non-compliance.

34 Also see: https://www.fdcl.org/wp-content/uploads/2015/10/EL-ACUERDO-GLOBAL-ENTRE-LA-UNI%C3%93N-EUROPEA-Y-M%C3%89XICO_web.pdf

ing the Permanent People's Tribunal session on "The European Union and Transnational Corporations in Latin America: Policies, instruments and actors complicit in violations of the peoples' rights", held as three hearings in Vienna (2006), Lima (2008) and Madrid (2010) (PPT 2010, Olivet and Pérez Rocha 2017). The cases were jointly submitted by Latin American and European organizations.

Among the cases heard by the PPT, one finds, for example:

- ▶ **Aguas de Barcelona - Suez (France):** This TNC was denounced in all three PPT hearings for depleting aquifers in Saltillo and causing the deterioration of the quality of the water supply³⁵
- ▶ **Continental Ag. (Germany):** In the Madrid hearing, this TNC was denounced for violating labour rights and the right to strike of 1,164 workers employed by its Mexican subsidiary Compañía Hulera Euzkadi (PPT 2010, 39)
- ▶ **Holcim (Switzerland, France):** Holcim was condemned during the hearing in Madrid for polluting the environment with toxic substances³⁶
- ▶ **Unión Fenosa et al. (Spanish State):** This TNC was also denounced in all three hearings for the violation of the rights of indigenous peoples from the Isthmus of Tehuantepec while implementing wind farms (PPT 2010, 48).

In April 2020, in the midst of the global health crisis caused by COVID-19, the EU-Mexico FTA was replaced by an agreement "in principle",³⁷ negotiated without the participation of Mexican or European social and civil organizations. The new agreement includes a chapter on investment protection along with the new dispute settlement mechanism proposed by the EU: the Investment Court System (ICS). If implemented, this system will allow European and Mexican TNCs to use the arbitration mechanism if they believe that a law or other government measures affect their interests and profits. In the section below, we examine this mechanism in more detail. Far from addressing the weaknesses of the EU-Mexico FTA in relation to binding mechanisms for the respect of human rights, the new agreement will only expand corporate rights. In fact, the investment chapter does not even mention the obligation of foreign investors to protect human rights (Olivet and Pérez Rocha 2017).

2.3 IMPACTS OF THE INTERNATIONAL INVESTMENT REGIME IN MEXICO

If we consider all the cases brought before investor-state dispute settlement mechanisms (ISDS), Mexico is the third country in Latin America and the Caribbean with the most complaints filed against it by foreign investors in supranational arbitration tribunals, and one of the six countries facing the most lawsuits in the world. Until mid-May 2020, the extensive framework of bilateral investment protection treaties and free trade

35 The conflict continues even today. See the recent report by El Salto (<https://www.elsaltodiario.com/agua/aguas-turbias-salttillo-veracruz-ag-bar-mexico>).

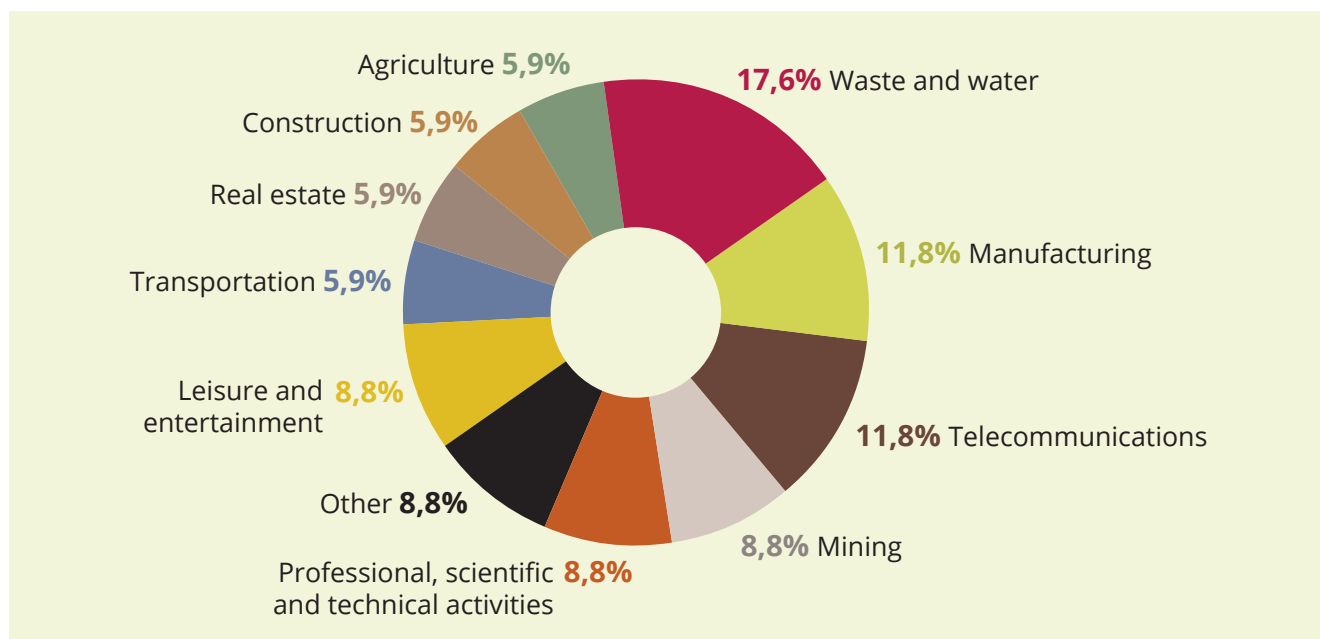
36 The complaint submitted to the PPT was on the environmental impacts in Atotonilco de Tula. The conflict continues and the region was visited by the caravan.

37 See: <https://trade.ec.europa.eu/doclib/press/index.cfm?id=1833> and <https://www.bilaterals.org/?eu-and-mexico-announce-the&lang=en>

agreements in which the country is immersed has allowed investors to bring the country before arbitration courts on 34 occasions.³⁸

Twenty of these complaints were filed by US-based investors under NAFTA, five by Spanish TNCs, three from Canada, two from France and the rest were submitted by TNCs from Argentina, Panama, Singapore and the United Kingdom. Two thirds of these complaints have been settled. In 53% of the cases, the arbitration tribunal ruled in favour of the TNCs, ordering the Mexican government to pay a total of nearly 214 million euros in compensation to investors. This amount is ten times the budget of the Department of Epidemiology of the Mexican Ministry of Health for 2020 – no minor detail given the current context of the COVID-19 health crisis.³⁹ What is more, this amount could still increase tremendously due to the thirteen cases still pending, which together total approximately 7 billion euros. This sum greatly exceeds the amount that the Mexican government allocated to the emergency fund to fight the pandemic in March 2020.⁴⁰ It should be noted that due to the diversification of the Mexican economy, the arbitration cases have been filed in different sectors, as illustrated in the chart below.

■ **Chart 1. Distribution of the 34 arbitration cases filed against Mexico (percentage by sector)**



Source: <https://isds-americalatina.org/mexico/>

With the “modernization” of the EU-Mexico FTA, the fifteen bilateral investor protection agreements (BITs) that Mexico currently has with EU member states will be integrated into one investment protection chapter. Furthermore, the new agreement will also give the TNCs of the twelve EU countries that do not currently have BITs the opportunity to file a lawsuit against Mexico at a special investment tribunal to which only investors – and not the affected sectors or communities – have access. Mexican in-

38 See: <http://isds-americalatina.org/mexico/>

39 See: <https://www.infobae.com/america/mexico/2020/03/13/gobierno-de-am- lo-aumento-presupuesto-para-el-sec- tor-salud-pero-lo-redujo-para-vigilan- cia-epidemiologica/>

40 See: <https://www.imf.org/en/Topics/ imf-and-covid19/Policy-Respons- es-to-COVID-19#M>

vestors will, of course, be able to sue EU member states. However, as described in the box below, there is clearly an asymmetry in the filing of the cases, as Mexican TNCs have one outstanding claim against the Spanish state, whereas European investors have filed nine (which does not include the complaints filed by TNCs from the UK).

Box 2. Arbitration cases filed by European TNCs against Mexico

2000: Técnicas Medioambientales, TecMed (Spanish State) vs. Mexico. This was the first ISDS claim filed against Mexico by a European TNC. TecMed managed Cytrar, an industrial waste facility that began receiving highly toxic and illegal waste from other parts of Mexico and other countries in 1998. Due to mass protests organized by the Consejo Ciudadano de Protección al Medio Ambiente de Sonora (Citizen Council for Environmental Protection of Sonora), local authorities from Hermosillo (Sonora) decided to close the facility.⁴¹ The ISDS tribunal ordered Mexico to pay nearly 4.5 million euros to the TNC.⁴²

2004: Gemplus and Talsud (France) vs. Mexico. The Mexican government decided to cancel the concession contract that had been granted to these companies to run the Registro Vehicular Nacional (RENAVE or the National Vehicle Registry) in 2002 when it was revealed that their director and shareholder in RENAVE, Ricardo Miguel Cavallo, was a former Argentinean military officer accused of crimes against humanity, who was condemned to life imprisonment in 2011. The TNCs in question submitted a request for claim for 31 million euros. In the end, the World Bank International Centre for Settlement of Investment Disputes (ICSID) ruled in the TNCs' favour and ordered the Mexican government to pay them over 12 million euros in compensation.⁴³

2009: Abengoa and Cofides (Spanish state) vs. Mexico. In response to grassroots resistance organized by the "Todos somos Zimapán" (We are all Zimapán) movement, this municipality⁴⁴ of the state of Hidalgo decided not to renew these Spanish TNCs' operating permit for hazardous industrial waste sites. The TNCs went to the ICSID to demand 59 million euros in compensation. They obtained a ruling in their favour and Mexico was ordered to pay 34 million euros to investors.⁴⁵

2012: Telefónica (Spanish state) vs. Mexico. Cofetel, Mexico's public regulatory agency for the telecommunications sector, issued a resolution in 2010 calling for a 60% reduction in connection fees. A report by the Organisation for Economic Co-operation and Development (OECD) supported the government's decision and recommended stricter regulations for the sector, since its lack of efficiency was costing the Mexican economy 21 billion euros a year and affecting the population's well-being.⁴⁶ Telefónica filed a request for arbitration demanding 843 million euros in compensation. In 2018, the case was resolved through an agreement between the parties whose content has not yet been disclosed to the public.⁴⁷

41 See: http://ecosonora.org/caso_cytrar.htm

42 See the arbitration ruling of 2003: <https://www.italaw.com/sites/default/files/case-documents/ita0854.pdf>

43 See the arbitration ruling of 2010: <https://www.italaw.com/sites/default/files/case-documents/ita0357.pdf>

44 See: <http://www.ecologistasenaccion.org/article26126.html>

45 See the arbitration ruling of 2013: <https://www.italaw.com/sites/default/files/case-documents/italaw3187.pdf>

46 See: <http://www.oecd.org/internet/broadband/49536828.pdf>

47 See: <https://bilaterals.org/?telefonica-mexico-withdraws-eur&lang=en>

2013: Cemusa and Corameq (Spanish state) vs. Mexico. Corporación Europea de Mobiliario Urbano (Cemusa) and Corporación Americana de Equipamientos Urbanos (Corameq) filed a request for arbitration with the ICSID after an administrative court of the state of Jalisco cancelled their contract to provide bus stops and street furniture to the city of Guadalajara. Only one year later, the claim was discontinued due to the failure of the parties to take action to further the proceedings.

2017: Eutelsat (France) vs. Mexico. French satellite company Eutelsat brought an ICSID claim against Mexico, arguing that Mexican regulations put Eutelsat at a disadvantage compared to satellite companies operating outside of the country, as the latter are required to allocate considerably less megahertz for government use. The claim is still pending.⁴⁸

2017: Carlos Esteban Sastre and Jacquet et al. vs. Mexico: Carlos Esteban Sastre, an Argentinian-Spanish-Mexican citizen registered a complaint regarding the seizure of his hotel properties in Tulum. In 2019, a group of French, Canadian and Portuguese investors, Jacquet et al., joined the lawsuit, increasing the total of the claim to 80 million euros. *The New York Times* reported that the confiscated properties are located in an area of over 10,000 hectares that the Mexican government had designated in 1973 as an “ejido”, or an area of communal land, to provide land to peasant communities.⁴⁹ However, an investigation by Mexican journalists suggests that the seizures could be related to a broader land grabbing and corruption scheme run by Roberto Borge, the former governor of Quintana Roo. Borge was removed from office months after the evictions and was brought to trial for embezzlement and misuse of public office in 2016.⁵⁰ This arbitration case has not yet been resolved.

2020: Coöperatieve Rabobank UA vs. Mexico. In July 2020, the Dutch bank Coöperatieve Rabobank used the bilateral investment treaty between the Netherlands and Mexico to register a complaint at the ICSID against Mexico. Although not many details of the complaint have been made public, it is known that the case has to do with an investment in the shipping industry. CIAR Global suggested that Rabobank's claim could be related to a 200 million-euro credit line that the bank provided to Oceanografía between 2007 and 2008 to buy boats.⁵¹ Shortly after, Oceanografía declared bankruptcy and defaulted on its payment obligations to Rabobank. In 2014, the Mexican government took over the company and initiated criminal investigations into allegations of fraud. Rabobank is currently demanding compensation from the Mexican government for things that happened before the state owned the company. It is worth mentioning that a Rabobank subsidiary in California was recently forced to pay out US\$370 million, after a US court found it guilty of money laundering linked to drug trafficking by Mexican cartels.

48 See: <https://icsid.worldbank.org/en/Pages/cases/casedetail.aspx?CaseNo=ARB%28AF%29/17/2>

49 See: <https://www.nytimes.com/2016/08/17/world/americas/mexico-tulum-corruption-evictions.html>

50 See: <https://expansion.mx/nacional/2016/07/06/los-piratas-de-borge-el-saqueo-de-bienes-institucionalizado-en-quintana-roo>

51 See: <https://ciarglobal.com/rabobank-demanda-a-mexico-en-un-arbitraje-de-inversion/>

As we have demonstrated in this section, the new EU-Mexico FTA does not contain effective mechanisms to guarantee the protection of human rights – that is, ones that go beyond the existing clauses in the previous agreement, which are purely ornamental. On the contrary, according to Olivet and Pérez Rocha (2017), if the new agreement is ratified and comes into effect, it will have the following consequences:

- ▶ Foreign investors will have even more opportunities to challenge public interest legislation in Mexico and Europe;
- ▶ It will lock in privatizations and pro-corporate reforms in the oil and gas sector;
- ▶ It will be more difficult for Mexico and individual EU countries to pull out of the agreement;
- ▶ It will put Mexico at greater risk of being the target of a new wave of investment lawsuits launched by European investors;
- ▶ The chances of Mexican TNCs filing complaints against EU governments will increase, and
- ▶ The impunity with which European TNCs violate human rights and harm the environment will continue to prevail.



Mural on socio-environmental impacts in the Independencia River basin.

Photo: *Muraleando con Conciencia*, Colectivo Guardianes de la Cuenca Independencia

ENVIRONMENTAL HELL FOR THE PEOPLES



This chapter presents a summary of the information gathered in the regions visited by the Caravan where the living conditions have become unbearable for the local population due to socio-environmental degradation. The former Minister of the Environment and Natural Resources, Victor M. Toledo, himself referred to these spaces as “environmental hells”⁵². In each one, different types of business operations are related to different impacts. It is important to highlight that since the Caravan ended, and to facilitate the political impact of the work we referred to in section 1.2 above, the organizations of affected peoples have been putting together an impressive dossier of scientific research and community reports. The following section presents a very brief summary of this information.

When reading the sections below, it is important to note that in the neovolcanic belt where the six regions are located, there is a total of fifteen “hells” or environmental emergency regions (EERs). At the national level, the number is as high as forty. Thus, as Barreda (2020b) rightly observes, this panorama is but ‘the tip of a gigantic iceberg of social injustice’.

3.1 SANTIAGO RIVER BASIN

***Revised by Alan Carmona, Sofía Enciso and Graciela González (Un Salto de Vida)**⁵³

Southeast of the capital of the state of Jalisco, El Salto and Juanacatlán were the two places visited in the **Lerma-Chapala-Santiago basin**⁵⁴. According to the local organizations of affected peoples who met with the

Presentation by Un Salto de Vida on socio-environmental impacts, El Salto, December 2019.

Photo: Martín Álvarez Mullally, OPSur

⁵² See: <https://www.jornada.com.mx/2019/07/30/opinion/016a1pol>

⁵³ The information provided by Asociación Un Salto de Vida (<https://www.facebook.com/unsaltodevida/>) and the reports elaborated by the organizations of affected peoples (Un Salto de Vida and Asamblea de Pueblos en Resistencia de la Cuenca Chapala-Santiago 2020, Caravana Toxi-TourMexico 2020a and 2020b) have been extremely useful for the elaboration of this section. For more information on this case, see also: <https://www.nytimes.com/es/2020/01/01/espanol/america-latina/mexico-medioambiente-tmec.html>, <https://actualidad.rt.com/actualidad/341525-genocidio-silencioso-rio-santiago-contaminado-mexico>, <https://www.elsaltodiario.com/mapas/el-infierno-del-paraiso-industrial-el-salto-rio-santiago>.

⁵⁴ The Lerma River originates in the state of Mexico, runs through the states of Hidalgo, Querétaro, Guanajuato and Michoacán, flows into Lake Chapala in Jalisco and reemerges as the Santiago River until it reaches the municipal capitals of El Salto and Juanacatlán (Un Salto de Vida 2020).

observers⁵⁵, over half a million people, or one third of those living on the shores of Lake Chapala and the Santiago River, have been directly exposed to environmental pollution in the area (Caravana ToxiTourMexico 2020a, 6).

Industrialization began in the 1930s, intensified after the first trade liberalization policies were adopted in 1982 and accelerated even more when NAFTA was signed. Currently, large areas of the basin are occupied by industrial manufacturing plants, agriculture and urban centres. These areas are connected to the two biggest industrial corridors in the country: Toluca-Lerma, where more than 1,000 manufacturing corporations have set up their operations, and Ocotlán-El Salto, home to around 700 corporations, essentially from the metalworking and metallurgy, chemical, pharmaceutical, electronic, automotive and food and beverage industries (McCulligh 2020, 15). The basin also receives effluents from the Guanajuato industrial zones and the oil refinery in Salamanca. Also worth noting is the “Los Laureles” landfill located only a few kilometres from El Salto. Run by the Mexican corporation Caabsa Eagle, the landfill generates highly polluting leachate, which drains into the Santiago River (McCulligh 2017, 169). According to researcher Gerardo Bernache, because the waste is left uncovered, the risk of the landfill collapsing from rain and fire is high. In fact, in April 2019, eight hectares of “Los Laureles” burned for a week, generating gases that strongly affected the residents of the surrounding area⁵⁶.

The affected population began organizing and demanding an investigation into the impacts of the industrial corridors on their health in 2000⁵⁷. Receiving no response from authorities, they appealed to well-known opinion tribunals. The Latin American Water Tribunal examined the case of the environmental deterioration of the Santiago River in 2007⁵⁸ and Lake Chapala in 2018⁵⁹. The session of the Mexico Chapter of the Permanent Peoples’ Tribunal did the same between 2011 and 2014. **An accident occurred in 2008 that drew attention to the seriousness of the situation: Miguel Ángel López Rocha, a nine-year-old boy from Juanacatlán, fell into the Santiago River and died from severe arsenic poisoning⁶⁰.** In 2011, a study on the water quality of the Santiago River by the Instituto Mexicano de Tecnología del Agua (IMTA or Mexican Institute for Water Technology) mapped out municipalities, industries and livestock farms that dump their wastewater in the river and its tributaries. The study confirmed the presence of 1,090 pollutants in the water⁶¹, that between 87% and 94% of the factories fail to comply with the lax discharge standards, and the dumping of 507.5 tons of pollutants into the river daily. One of the study’s main recommendations was on the importance of addressing the pollution in the short term (IMTA and CEA Jalisco 2011, Annex V.5, 10). Despite the findings, the authorities did not take remediation measures.

In 2005, the Government of Jalisco announced the construction of two wastewater treatment plants as part of the Comprehensive Sanitation Programme for the Greater Guadalajara Region. However, not only are both plants designed to treat domestic sewage and not industrial waste, but they do so inadequately. Furthermore, building them does not resolve

55 The local people who met with the caravan were: members of the communities living on the shores of Lake Chapala (the Cocana indigenous communities of Mezcala, San Pedro Itzicán and Aguacaliente); residents of San Francisco de La Soledad, San Antonio Tlayacapan, Ajjic, Chapala and Jocotepec; members of communities living on the riverbanks of the Santiago River (Ocotlán, Poncitlán, Casa Blanca, Atequiza, Juanacatlán, Ixtlahuacán de los Membrillos and El Salto); and those living in the canyons of Puente Grande, Toluca, Tonalá, Huentitán, Los Tempisques, San Francisco de Ixcatlán, La Soledad, San Esteban, San Isidro, San Lorenzo, Huaxtla, Milpillás, El Escalón, Paso de Guadalupe, San Cristóbal de la Barranca and Ixtlahuacán del Río; from the ejidos or communal lands of Zapotlán, Jocotepec, Potrerillos, Toluca, Los Laureles, Puente Grande, Jesús María, Zapotlanejo, El Saucillo, San Juan Tecamatlán and La Soledad, among others; members of the communal land commission of the indigenous communities from Mezcala, San Antonio Tlayacapan, and San Esteban; representatives of Agrupación Un Salto de Vida, Colectivo Mezcala, Colectivo Tonalá, “Tierra, Agua y Aire Limpio para Nuestros Pueblos”, Cooperativa Huaxtla and Colectivos de Enfermos Renales de El Salto y San Pedro Itzicán.

56 See: <https://lider919.com/hay-un-alto-riesgo-de-colapso-en-basurero-los-laureles-frente-a-lluvias-e-incendios-ante-falta-de-cobertura-de-residuos-advierter-experto/> and <https://www.facebook.com/unsaltodevida/videos/513521133074191>

57 They still face harassment, criminalization and threats even today because of their involvement in mobilizations (CIEDH 2016, 78). It should be noted that there is considerable drug-trafficking and gang activity in the region. See: <https://www.youtube.com/watch?v=UYud8PrMvOA>

58 The Tribunal’s ruling is available at: http://tragua.com/wp-content/uploads/2012/04/caso_rio_santiago_mexico.pdf

59 See the verdict at: <http://tragua.com/wp-content/uploads/2019/03/VeredictoLago-Chapala.finalconfirma.docx.pdf>

60 See the recommendations of the Comisión Nacional de Derechos Humanos de México (Mexico’s National Human Rights Commission) on this case: https://www.cndh.org.mx/sites/all/doc/Recomendaciones/2010/Rec_2010_012.pdf

61 Of these pollutants, 998 appeared intermittently, in only one site and in low concentrations (less than 30 µg/L). As for the other substances, between 43 and 103 were detected in two different places at the same time; between 19 and 34, in three places, and between 93 and 490 substances were found spread out in between 4 and 30 places (Un Salto de Vida and Asamblea de Pueblos en Resistencia de la Cuenca Chapala-Santiago 2020, 9).

the problem of the lack of regulation on the industries' operations, nor do they restrict corporations' access to water – neither as an input nor a dumping site for their toxic waste. Therefore, the state's response is based on a logic that puts corporate interests before the human rights of the local population (Carmona 2016).

It took state authorities ten years to disclose another study that had been commissioned to the Universidad Autónoma de San Luis Potosí (UASLP or Autonomous University of San Luis Potosí). They only did so in December 2019 because the Caravan helped the local organizations draw attention to the existence of the study and pressure authorities to release it to the public. The study collected data on a sample of children from six towns located near the Santiago River between 2009 and 2011. In relation to heavy metals, it found traces of:

- ▶ **Arsenic** (associated with cancer and neurotoxicity, among other diseases) in more than 40% of the children from El Salto;
- ▶ **Cadmium** (linked to kidney damage) in nearly 98% of the children from El Salto, 80% of children from Juanacatlán and 77% in those from Puente Grande;
- ▶ **Lead** (a powerful neurotoxin) in 93% of the children from Juanacatlán, and
- ▶ **Muconic acid** (due to the ingestion of benzene, which is associated to cancer) in between 60% and 80% of the children from El Salto and Juanacatlán.

Furthermore, the study showed that nearly half the children in the sample suffered from gastrointestinal, respiratory, skin and eye problems. **Haematological disorders were detected in 88% of the children from La Cofradía and 79% of those from El Salto; what is striking is that these results could not be linked to cases of anaemia.** These disorders prevent sufficient oxygen from reaching the brain or other organs, thus affecting verbal and learning skills, memory, and verbal comprehension and, as a result, school performance (UASLP and CEA Jalisco 2011). In 2017, another study on air quality and its impacts on the respiratory function of children in El Salto recommended the urgent implementation of an epidemiological monitoring system, as well as changes to the treatment, registration and prevention of respiratory problems related to exposure to toxic substances present in the environment (González 2017, 254).

The officials who had received the results of the UASLP study almost ten years ago and done nothing with them held positions in the current administration of Jalisco Governor Enrique Alfaro Ramírez (2018-2024) until shortly after the study's release. In February 2020, bowing to pressure from social organizations and the media scandal generated by the revelation of the UASLP study, state authorities released a list of 29 corporations that exceed federal standards on the discharge of pollutants in the Santiago River⁶². We will examine some of these cases in more detail in chapter 4 below.

According to the organizations of affected peoples, **the study reflects a reality that plagues the entire population**⁶³. They condemn the fact that

62 See: <https://partidero.com/ventilan-a-29-empresas-que-contaminan-el-rio-santiago/>

63 See the documentary entitled "Río Santiago: la enfermedad de la omisión" (<https://youtu.be/XiEX2WsO8IY>).

their region is being sacrificed for the sake of economic growth and to generate wealth for Mexican and foreign TNCs. They also criticize the hydraulic engineering approach of the restoration programmes for the river basins, proposing instead an approach that recognizes rivers as dynamic ecosystems and beings and that effectively involves the communities in the elaboration and implementation of the said programmes (Un Salto de Vida 2020). In the box below, we present a summary of the organizations' main demands.

Box 3. The main demands of the affected peoples of the Santiago River basin

Among the numerous actions needed in the region, the affected peoples claim their right to life, land, water and clean air. They denounce that TNCs are allowed to operate in conditions that cause death and illnesses at the local level and that are not tolerated in their countries of origin, and call for an urgent end to this situation. In particular, they demand:

1. That the basin be declared an **environmental and health emergency region** so that extraordinary measures will be taken to resolve the environmental and health problems affecting the people.
2. **Extensive regulatory changes**, strict regulations for impact and risk assessments, strict and systematic monitoring and the implementation of the technology necessary for continuous monitoring.
3. **An end to incentives for investments that pollute** the region and the adoption of measures to change the industrial vocation of the municipalities in the region, as well as a **halt to new** hydroelectric, industrial and real estate **megaprojects** in the area.
4. The **reorientation of production towards sustainable agriculture**, investments in restoration and the implementation of more efficient irrigation systems.
5. An approach to sanitation policies based on a **broad socio-ecological vision that treats the basin as a whole**, instead of a hydraulic engineering approach, or an aesthetic one, as seen in the removal of lilies in visible parts of the river.
6. **The substitution of the sources of the city's water supply and for energy generation** so that the hydraulic infrastructure inhibiting the self-cleansing of the river can be removed and, prior to that, the riverbed can be dredged to prevent pollutants from spreading.
7. Alongside any other project, **extraordinary attention should be paid to public health and healthcare** should be provided to the numerous people suffering from kidney problems. This will require the state to establish haemodialysis units, offer chemotherapy or other cancer treatments and build a local speciality hospital to avoid having to transport people who are ill long distances to the city of Guadalajara.
8. **Guaranteed access to clean water, in sufficient quantity and quality**, for basic uses such as domestic use and for agricultural and livestock production to all communities along the river-

banks and in the canyons, while giving priority to peri-urban and rural areas.

9. **The permanent closure of municipal and city landfills** to switch to an integral waste management system, and the clean-up of old, abandoned landfills that continue polluting the streams and tributaries of the Santiago River.
10. **Guarantees for their direct participation in planning and decision-making** to ensure that all the regional problems in the processes mentioned above are resolved and advances are made towards restoration and obtaining justice in socio-environmental conflicts. .

Source: *Un Salto de Vida*

3.2 THE INDEPENDENCIA RIVER BASIN

***Revised by Mercedes Páramo and Rocío Montaña (Coalición en Defensa de la Cuenca de la Independencia, CODECIN) and Dr. Cristina Caldera**

In the next phase of the tour, the Caravan visited the Independencia River basin in the state of Guanajuato. The signing of NAFTA and the consequent amendment to article 27 of the Mexican constitution opened the door to the sale of land, which was bought up by **large foreign and national corporations which used it to grow vegetables for export** (Páramo, Montaña and Martínez 2020). Today, this state ranks eighth in agricultural production in the country⁶⁴. The main destination of 96% of these food products is the US⁶⁵.

The organizations in the north-east of the state of Guanajuato exposed the **impacts generated by the agribusiness industry** in a region that is home to close to 500,000 people⁶⁶. In the basin, the aquifer is slowly being depleted, especially in the municipalities of San Felipe, San Luis de la Paz, San Diego de la Unión, Dolores Hidalgo, Doctor Mora, San José Iturbide and San Miguel de Allende. Ortega (2018) observed that although the region's history is full of reports on various streams, rivers and lakes, now, there are times when the water levels of the La Laja River are very low. The majority of springs and the ecosystems linked to them have disappeared. What is more, the aquifer's water table that used to be 100 metres below the surface sixty years ago has dropped to 500 metres. Between 1992 and 2002, the amount of irrigated land used to grow food exports increased by 50%⁶⁷. This industry uses 85% of the 1 billion cubic metres of water extracted from 3,000 wells every year. It should be noted that the aquifer is the main source of drinking water for the communities of this semi-arid region. All users are supposed to be represented by the Consejo Técnico de Aguas Subterráneas (COTAS or the Groundwater Technical Committee). However, those who have less economic power have limited participation in it due to pressure from

64 See: https://www.gob.mx/cms/uploads/attachment/file/465358/Expectativas_Mayo_2019.pdf

65 See: <https://cofoce.guanajuato.gob.mx/2020/08/13/agroalimentos-un-sector-en-constante-transformacion-y-crecimiento-en-guanajuato/> and <https://cofoce.guanajuato.gob.mx/2019/12/18/2019-un-ano-de-oportunidades-y-desafios-para-las-exportaciones-cofoce/>.

66 The organizations that met with the caravan are: el Centro de Desarrollo Agropecuario (CEDESA); la Coalición en Defensa de la Cuenca de la Independencia (CODECIN), which is composed of community-based organizations from the municipalities of Dolores Hidalgo C.I.N., San Diego de la Unión, San Luis de la Paz and San Miguel de Allende; Educación Colaborativa (a social organization that regroups several others in San Miguel de Allende) and Unión de Trabajadores de Desechos Sólidos Industrializables Lázaro Cárdenas del Río de Dolores Hidalgo.

67 This was around the time when NAFTA was beginning to be implemented. To gauge the agreement's impact on this sector, it is important to note that **between 1991-1993 and 2016-2018, the value of Mexico's fruit and vegetable exports to the US increased 863%** (https://www.ers.usda.gov/media/10247/mexico_imports.xls). Mexico is currently the world's leading supplier of fresh fruit and vegetables and the second biggest supplier of processed fruit and vegetables to US markets (<https://www.ers.usda.gov/webdocs/DataFiles/53602/importcmd2018.xls?v=877.7>).



Presentation on the socio-environmental impacts in the Independencia River basin, December 2019.

Photo: Martín Álvarez Mullally, OPSur

large agricultural TNCs that have managed to occupy high-ranking positions in the Mexican political system (Caravana ToxiTourMexico 2020b, Ortega 2018).⁶⁸

The overexploitation of the aquifer has led to the depletion of more recently formed groundwater sources and the water that people now consume is contaminated. For over thirty years, people have been basically extracting fossil water (whose origins date back between 10,000 and 35,000 years), which contains fluoride, arsenic, sodium, manganese and other minerals in **concentrations that are harmful to human health** (Páramo, Montaño and Martínez 2020). Municipalities with the highest concentrations of these elements are also the ones with the highest incidence of **chronic kidney disease (CKD), kidney transplants and dental fluorosis** in the country.⁶⁹ One analysis of the records of the Centro Estatal de Trasplantes de Guanajuato (State of Guanajuato Transplant Centre) from 2013 to 2015 found that 67% of CKD cases were detected in people under 30 years of age, most of whom (84%) reported that they drank water directly from the tap (Murillo 2016). In the state, CKD went from being the seventeenth cause of premature deaths in 1990 to the number one cause in 2013, with a 300% increase in the annual mortality rate (Ortega 2018). The highest incidence of this disease is found in San Diego de la Unión, Dolores Hidalgo, San Luis de la Paz, San Felipe and San Miguel de Allende – municipalities whose reality was brought to the observers' attention during the Caravan's tour (Caravana ToxiTourMexico 2020b).

68 This is the case, for example, of former Mexican president, Vicente Fox, or of Javier Usabiaga, who was the head of the Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA) during Fox's six-year term in office (see: <https://www.sinembargo.mx/11-01-2020/3710016>).

69 According to research by Ortega, the origin of fluoride and arsenic in this area "is linked to reactions from the dissolution of volcanic rock located in the fractured aquifer and the longer residence time of water in the aquifer, among other factors" (Caravana ToxiTourMexico 2020b, 19).

This case was also denounced at the 2013 session of the Mexico Chapter of the Permanent Peoples' Tribunal mentioned in section 2.1 above. During the session, the communities reported other impacts as well, such as skeletal fluorosis, serious neurological symptoms, gastrointestinal disorders, skin conditions and problems affecting the reproductive system (miscarriages and high-risk pregnancies). The Tribunal concluded that the Independencia River basin should be declared an **emergency zone because of the environmental, agricultural and health risks there** (PPT 2013). The local organizations that presented the case to the Caravan reaffirmed this demand and stressed the urgent need to make domestic and community use of groundwater a priority. They demanded that an **epidemiological study on the "cause and effect" relationship between the high incidence of CKD and water pollution** be initiated as soon as possible. They also argued that the government's response should be based on a preventative approach and should guarantee treatment for people suffering from kidney failure (Caravana ToxiTourMexico 2020b). In addition to the water-related issues, the local organizations also denounced the extreme exploitation of local and indigenous migrant workers by agribusiness operations and the environmental and health impacts associated with the use of pesticides and other toxic agrochemicals (Caravana ToxiTourMexico 2020a).

It should also be noted that 13.5 km from Dolores Hidalgo, in the community of San Antón de las Minas, the Canadian corporation Argonaut Gold is developing the "Cerro del Gallo metallic minerals mining and processing" project – the first open-pit gold, silver and copper mine in Guanajuato.⁷⁰ The local organizations are opposed to the project, as they fear it will exacerbate the problem of pollution, the overexploitation of water sources and other forms of socio-environmental damage (Páramo, Montaña and Martínez 2020).

In the **south of the state of Guanajuato**, the Caravan drew attention to the impacts of the industrial corridor that goes from Celaya to León, primarily the problems appearing in the municipalities of Salamanca (237,000 residents) and Leon (1,578,626 residents).⁷¹ For one, the communities denounced the impacts caused by the production of pesticides such as malathion by **Tekchem** (in Salamanca). In 2000, three explosions occurred in the TNC's plant, whose causes are still unknown. While the exact number of people exposed to toxins has not yet been determined, it is estimated at 100,000, since the toxic cloud spread dozens of kilometres from the plant after the explosions. Between 200 and 6,000 people are believed to have been poisoned. Residents of the area have reported respiratory problems, headaches, loss of consciousness moments after the explosions, abdominal pain, nausea and even cancer years after the accident. The TNC ceased operations in 2008, but the waste remained out in the open for eight years and spread to the surrounding area (Beltrán-Hernández, Ortega, et. al. 2019).⁷²

Another case from this industrial corridor involves **Química Central de México** (León). In 2015, Profepa (Federal Bureau of Environmental Pro-

70 See: <https://www.argonautgold.com/Spanish/bienes/proyectos-de-desarrollo/cerro-del-gallo/default.aspx>

71 The complaints on the impacts in this region were presented by Observatorio Ambiental Ciudadano Biósfera, which regroups several organizations from the municipality of Salamanca and Red Alebrije from the municipality of León.

72 See also: Albert, L., Jacott, M. *México Tóxico. Emergencias químicas*. Mexico City: Editorial Siglo XXI, 2015, 178.

tection) closed down the company's facilities in San Francisco del Rincón when serious violations were found in the handling and storage of hazardous waste, which had been left out in the open.⁷³ However, to this day, the company has not complied with the state order to completely remove 300,000 tons of hexavalent chromium. In 2019, the Standing Committee of the Mexican Congress voted to initiate an investigation into the TNC's environmental liabilities, warning that the residents of the surrounding area were still at risk.⁷⁴ The local organizations informed the Caravan that the incidence of respiratory and immunological diseases, teratogenic damage, malformations and problems caused by severe poisoning (headache, sore throat, burning eyes and vomiting) is on the rise.⁷⁵

In 2010, in the **city of Guanajuato** (185,000 inhabitants), people began observing **health and environmental damage that had probably been caused by pesticides such as permethrin, malathion, chlorpyrifos, temephos and other chemicals used in the health campaigns launched by the Ministry of Health nation-wide** (namely those used to eradicate the mosquito that transmits dengue fever).⁷⁶ These toxic substances appear in PAN International's list of "Highly Hazardous Pesticides".⁷⁷ The World Health Organization (WHO) has also stated that malathion is probably carcinogenic.⁷⁸ Dr. Cristina Caldera (2020) denounced that temephos is used in the region and the rest of the country in dosages 100 to 1,000 times higher than WHO recommendations. The Caravan was told that both public and private areas are fumigated and that temephos and other larvicides are used in drinking water reservoirs.

Exposure to pesticides can be linked to serious health problems such as autoimmune and neurodegenerative (Parkinson's and Alzheimer's) diseases, chronic-degenerative disorders affecting neurodevelopment during pregnancy and childhood, miscarriages, premature births, birth defects, increase in the incidence of cancer, respiratory, immunological, endocrine and reproductive disorders and changes in neurotransmitters. It affects all systems of the human body and causes harm to animals and the environment. For example, in 2016, a study on 201 miscarriages in a maternity and children's hospital in Irapuato (Guanajuato) concluded that 66.1% of pregnant women who were tested had been exposed to pesticides in urban areas.⁷⁹ The local organizations argue that **authorities should conduct a comprehensive scientific study on the presence of highly dangerous pesticides in the blood and urine of vulnerable groups** such as children, pregnant women and the elderly; in the sources of water for human consumption, and in fresh food sold on the street during the fumigations (Caravana ToxiTourMexico 2020a and 2020b). Non-toxic physical and biological alternatives should be used to control the dengue mosquito to avoid the use of pesticides (Caldera 2020).

73 See: <https://www.gob.mx/profepa/prensa/impone-profepa-nueva-clausura-a-quimica-central-y-fija-plazo-de-6-meses-para-retiro-total-de-300-mil-toneladas-de-residuos-peligrosos>.

74 See: <https://elotroenfuego.mx/aprueban-diputados-federales-investigacion-a-quimica-central-por-presunta-contaminacion/>

75 It is important to note that this region is a zone used by Syngenta and other TNCs to test genetically modified seeds (see chapter 4).

76 This case was presented by Cristina Caldera. Since 2010, complaints have been filed with different health institutions at the state and federal level, with the support of Frente Cívico Guanajuatense A.C., by agricultural engineer Miguel Ángel Chacón Chavira. According to Dr. Caldera, since the campaign against dengue is nationwide, the exposure of the population to insecticides used in the campaign adds to the effects of exposure to other pesticides and toxic substances present in the regions visited by the Caravan, and in the country as a whole.

77 See: http://pan-international.org/wp-content/uploads/PAN_HHP_List.pdf. Dr. Caldera also reported that the number of insecticides used in the campaign against dengue increased from 12 in 2011 to 59 in 2021.

78 See: <https://www.iarc.fr/wp-content/uploads/2018/07/MonographVolume112-1.pdf>

79 See: <https://www.researchgate.net/publication/313702952>



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Presentation on the socio-environmental impacts in the Toluca Sur region in the Mezquital Valley by Dr. Refugio Choreño

Photo: Martín Álvarez Mullally, OPSur

3.3 TULA RIVER BASIN IN THE SOUTH OF THE MEZQUITAL VALLEY

***Revised by Dr. Refugio Choreño (Fundación para el desarrollo integral Apaxtle)**

The industrial corridors in the **Mezquital Valley**, especially those in the south of the state of Hidalgo and the north of the state of Mexico (in the Toltec region), were on the next stage of the caravan's tour itinerary⁸⁰. The socio-environmental problems observed in this region are very complex. The impacts generated by the core of the cement industry's operations in the country overlap with the ones caused by extractive industries, industrial parks, a large refinery, a thermoelectric plant and the discharge of industrial and urban wastewater into the Salado and Tula Rivers. The water from these rivers is used downstream for agricultural production. The number of affected persons is estimated at one million, or almost half of the valley's population (Caravana ToxiTourMexico 2020a, Martínez 2018)⁸¹.

There are eight **cement factories** located in the municipalities of Atotonilco de Tula, Apaxco, Tula, Santiago de Anaya, Huichapan and Tlalnepantla. Together, they generate 40% of all cement produced in Mexico, not to mention a series of impacts within a 50-kilometre radius. They belong to Mexican TNCs Cemex, Cruz Azul and Cementos Fortaleza⁸² and the French-Swiss TNC LafargeHolcim. The Geocycle

80 The municipalities that make up the valley's macro-region are: Zimapán, Nicolás Flores, Tecozautla, Tasquillo, Ixmiquilpan, Cardonal, Huichapan, Alfajayucan, Santiago de Anaya, Nopala, Chapantongo, Chilcuautla, Mixquiahuala, Francisco I. Madero, San Salvador, Actopan, Tepetitlán, Tezontepec, Tetepanco, Ajacuba, El Arenal, Tula de Allende, Tlaxcoapan, Atitalaquia, San Agustín Tlaxiaca, Tepeji del Río and Atotonilco de Tula (Martínez 2018, 19).

81 The organizations from this region that met with the caravan are: Caminando por la Justicia – Atitalaquia, Red de Conciencia Ambiental "Queremos Vivir", Coalición de organizaciones democráticas, urbanas y campesinas de Hidalgo, Alianza Hidalguense Ambiental, Unión de Ecologistas San Jerónimo Tlaxaco, Yo Prefiero el Río Tula, Museo Comunitario Atotonilli and Fundación para el Desarrollo Integral Apaxtle.

82 **Cementos Fortaleza was owned by the French TNC Lafarge from 2006 to 2015** and currently belongs to Mexican businessmen Carlos Slim, who has appeared on lists of the richest men in the world. For more information on the transfer of ownership, see: <https://archivo.eluniversal.com.mx/finanzas/51564.html>, <https://www.elementia.com/documents/76715/7083629/Elementia+realiza+el+pago+final+a+Lafarge+por+su+47%25+en+Cementos+Fortaleza.pdf/15c10ba1-668e-4195-aabd-fd-11c7b51304>. For information on Holcim, see: <https://www.holcim.com.mx/donde-estamos>

processing plant⁸³ (also owned by LafargeHolcim) makes the fuel used to manufacture cement from waste. The TNC's non-compliance with environmental regulations and the accidents that this causes are discussed in section 4.4 below. **It is important to take all the risks that the cement industrial complex's entire chain of operations – from open-pit mining of limestone to the industrial processing of the material – poses for the local population into account.** In the Mezquital Valley, the mines are located in the districts of Tula, Atotonilco⁸⁴ and Apaxco. Five lime kilns linked to the cement industry have overexploited the territory's non-metallic mineral reserves (Asociación Ambientalistas San Jerónimo Tlamaco et al. 2020a). According to Martínez (2018, 26), the open-pit mines generate a large amount of dust particles that fall on crops, causing the loss of vegetation and soil fertility and thus, affecting agricultural production. Furthermore, alternative fuel used for cement production is obtained by burning urban waste such as tires, battery cases, expired medicines, agrochemical containers, batteries, solvents, greases, used oil and paint sludge. Not only does this process release volatile organic compounds (VOCs) into the atmosphere, but incineration (co-processing) in cement kilns also produces persistent organic compounds (POPs), such as dioxins, furans, polychlorinated biphenyls (PCBs), heavy metals, carbon dioxide and sulphur dioxide (Asociación Ambientalistas San Jerónimo Tlamaco et al. 2020a). Also, the overexploitation of the aquifers by the factories, which consume billions of litres of water, makes water scarce for the local population, depriving them of the right to water and to life.

As for the **industrial parks** in the area, Tula-Atitalaquia, Apaxco-Atotonilco-Atitalaquia⁸⁵ and Bicentenario QUMA stand out. Thirty TNCs from the railway, automotive, chemical, metalworking and food processing⁸⁶ sectors have set up their operations there, including: Sigma Alimentos, Cargill, Barcel, Griffith, Bimbo and Compañía Cerillera La Central. In addition, another 60 TNCs producing concrete, metal structures, pesticides, industrial fuel and plastic packaging and containers, among others, have also established themselves in the vicinity according to local organizations. Some of these TNCs specialise in wholesale trade of chemicals to the pharmaceutical industry or for other industrial uses, as well as fertilizers, pesticides and seeds (Caravana ToxiTourMexico 2020a). The close proximity of these factories to urban areas poses substantial risks, as clearly shown by the **chemical emergency** caused in 2013 by the explosion of an agrochemical plant owned by ATC (VELSIMEX) in the Atitalaquia Industrial Park. The toxic cloud from the explosion contained high concentrations of greenhouse gases (GHGs), heavy metals, dioxins and furans, which are considered highly toxic and cancerogenic (Camacho, Romo and Otazo 2019).⁸⁷ It was reported that approximately 40,000 residents from the municipalities of Atitalaquia, Cardonal, Tlamaco, 18 de marzo, Dendhó, Boyaj, Atotonilco, Progreso, Vito and their surroundings were poisoned.⁸⁸ The residents still feel the effects on their health to today because the released compounds are considered highly toxic, bio-accumulative,

83 See: <https://www.geocycle.com/mexico?address=Mexico>

84 See Martínez (2018, 22-23) for details on the largest mines operating in the region.

85 See: <https://www.parqueatitalaquia.com/>

86 Data from the National Statistical Directory of Economic Units updated in November 2019 (see: <https://www.inegi.org.mx/app/mapa/denue/>).

87 They are included in the Stockholm Convention's list of 12 priority substances for elimination. For more information on GHG emissions in this region, see Camacho, Romo and Otazo (2019).

88 See: <https://noticieros.televisa.com/ultimas-noticias/aumentan-casos-cancer-valle-mezquital-infierno-ambiental-toxitour/>

persistent and capable of travelling long distances (Asociación Ambientalistas San Jerónimo Tlamaco et al. 2020a).

The region is also the location of the **Miguel Hidalgo refinery**, the third largest in the country. It refines 24% of all crude oil in Mexico (Proaire 2016, 86). It supplies fuel for the eight million automobiles in Mexico City and it uses hydrogen sulphide in its operations – a substance banned in other countries (Asociación Ambientalistas San Jerónimo Tlamaco et al. 2020a). The organizations of affected peoples informed the Caravan that this industry pollutes the air, water and soil and generates toxic waste (Caravana ToxiTourMéxico 2020a). In Tula de Allende, less than five kilometres from the refinery is the **Francisco Pérez Ríos Thermoelectric Plant** of the Comisión Federal de Electricidad. One of the plants with the largest installed capacity in the country, it generates energy by burning fossil fuels (heavy fuel oil). According to Ortiz (2020), the refinery and the thermoelectric plant are the factories that dump the most wastewater in the regional hydrological system annually. The former dumps 9 million cubic metres and the latter, 18 million. Furthermore, together, they account for 35% of the state of Hidalgo's fine particle emissions (PM_{2.5}) within an 80-kilometre radius or more, travelling as far as the Valley of Mexico and Mexico City. According to WHO, the most harmful particles to human health are precisely the ones with a diameter of 10 microns or less, and chronic exposure to them increases the risk of developing heart disease, lung disease and lung cancer. Also, the refinery produces 25% of the SO₂ emissions of the state of Hidalgo and the thermoelectric plant, 72% (Proaire 2016, 30, 38, 85).⁸⁹

To all of this, one must add the issue of the water used to irrigate over 80,000 hectares of alfalfa, vegetable and genetically-modified maize, which has replaced native maize. The water comes from branches of the Salado and Tula Rivers that form several channels that run through the municipalities of Apaxco, Atotonilco de Tula, Atitalaquia, Tlaxcoapan, Tula, Tlahuelilpan, Tezontepec and Mixquiahuala. They transport sewage from Mexico City and other towns in the north of the Valley of Mexico and from industrial parks, with practically no treatment, as there is no industrial drainage system in place. The amount of pollutants in the water – including heavy metals and polycyclic aromatic hydrocarbons – is a danger to food production. The pollutants end up in the Endhó dam where they form a mix of toxic substances that alter and destroy living organisms; this dam supplies water to the riverine area around it. As if this were not enough, the wastewater treatment plant in the municipality of Atotonilco de Tula also generates emissions. The plant treats water from Mexico City's Eastern Drainage Tunnel and the sewage sludge from this process is sent to cement factories. The population living in the area is exposed to toxic substances deposited in the soil and foul odours in the air (Caravana ToxiTourMéxico 2020a and Asociación Ambientalistas San Jerónimo Tlamaco et al. 2020a). Every day, over 175,000 people in 273 places are affected by sewage (Ortiz 2020).

89 The organisations of affected peoples also denounce the frequency with which accidents occur in these facilities. The last one took place on 20 November 2019 in the municipality of Tetepango, when the Pemex pipeline burned for eight hours straight (see: <https://aristeguinoticias.com/2111/mexico/se-incendia-oleoducto-de-pemex-en-tetepango-hidalgo-desalojan-a-cerca-de-200-personas-video/>). Furthermore, they drew attention to the socio-environmental conflicts caused by the Tuxpan-Tula gas pipeline and the Tula Refinery's coking plant. Although the latter's operations are currently suspended, the government could reactivate them at any time. If this were to happen, "it would increase pollution, as they would reuse 80% of the fuel oil to increase gasoline, diesel and aviation fuel production by 40%, from 154,000 to 219,000 barrels and 440 tons of coke daily" (Asociación Ambientalistas San Jerónimo Tlamaco et al. 2020a).

According to the organizations of affected peoples from the Mezquital Valley, then, they are exposed to **a genuine “toxic cocktail”**. The main types of health problems there are: severe headaches, nausea, vomiting, irritation of the throat and conjunctiva, abdominal pain, breathing difficulties and fainting. Chronic illnesses reported in the area include ‘leukaemia, different kinds of cancer affecting all organs, congenital abnormalities, endocrine disorders, immunological disorders, kidney failure, respiratory diseases (chronic bronchitis, chronic obstructive pulmonary disease and bronchial asthma), with a higher incidence in children, pregnant women and the elderly’ (Asociación Ambientalistas San Jerónimo Tlamanca et al. 2020a).

Box 4. Main proposals of the affected peoples of the Mezquital Valley

1. A ban on the incineration of waste in cement and waste-to-energy factories.
2. Federal government support for the integrated waste management bill submitted to the Mexican Congress in April 2020, which aims to ban waste incineration and proposes a zero-waste law.
3. Federal government support for the proposed amendment to articles 162 and 162 bis of the Environmental Protection Law of the state of Hidalgo.
4. The construction of wastewater treatment plants and plans for new ecological processes for treating urban wastewater, as well as the prioritization of the use of clean water for food production to guarantee the human right to drinking water and sanitation.
5. The implementation of the “Air Quality Management Programme of the State of Hidalgo”, the adoption of measures to force factories to use emission control devices and the establishment of stricter emission limits than the ones set by current emission standards.
6. The development of local ecological land management programmes in all municipalities of the Toltec region, which contain measures to reorganize the industries in the area while taking into account their cumulative environmental impacts and going beyond a vision that treats each one separately. For this, a comprehensive approach to changes to land use is required and greater importance must be given to the protection of the environment and biodiversity.
7. A change of paradigms in favour of a bio-social turnaround of the economy. This will involve promoting projects based on relations of reciprocity with the land and economies that are in the hands of the communities and focussed on their essential needs and protection.

Source: *Asociación Ambientalistas San Jerónimo Tlamanca et al. (2020b)*



3.4 THE ATOYAC-ZAHUAPAN BASIN

Revised by **Alejandra Méndez Serrano and Federico Pohls Fuentesvilla (Centro Fray Julián Garcés Derechos Humanos y Desarrollo Local); Laura Méndez Rívas, Mayra Peña Contreras and Alejandra Ramírez Varela (Coordinadora Por un Atoyac con Vida)**

The Caravan also visited **the Atoyac-Zahuapan basin**, which covers an area of 2,001 km² in the state of Tlaxcala and 2,010 km² in Puebla.⁹⁰ Over three million people live in a region where old industrial corridors intertwine with the new. In the 1970s, six corridors were built in Tlaxcala, thus joining the ranks of the textile industry established in the region in the 19th century. According to the organizations of affected peoples, tax incentives, public services, infrastructure and the installation of an automotive assembly plant owned by German TNC Volkswagen and the PEMEX petrochemical plant in Puebla attracted numerous TNCs to the region, including: ThyssenKrupp, Condumex and Eurovent; mechanical parts and steel manufacturers such as Rassini and Ternium; petrochemical, agrochemical and chemical giants such as Bayer, BASF, Mexichem; textile TNCs such as Global Denim, Tavax, SEAO and Beakert, and ones from the food and beverages (Big Cola), ceramics (Santa Julia, Porcelanite-Lamosa) and paper (Kimberly Clark) industries. They reported that there are currently **20,402 manufacturing companies** in the industrial corridors, of which 256 are large or medium in size (more than 100 employees) (Caravana ToxiTourMéxico 2020a and Rosado 2018, 112).

^
Presentation on the socio-environmental impacts in the Atoyac-Zahuapan River basin by Father Rubén García Muñoz (December 2019) who passed away in December 2020 due to kidney problems.

Photo: Martín Álvarez Mullally, OPSur

⁹⁰ The organizations of affected peoples who met with the caravan are: Coordinadora por un Atoyac-Zahuapan con Vida (CAV), Pastoral de Derechos Humanos de la Diócesis de Tlaxcala, Centro Fray Julián Garcés Derechos Humanos y Desarrollo Local (CFJG), and residents of the municipalities of Tepetitla, Navitas and Ixtacuixtla in the state of Tlaxcala.

NAFTA prompted the deregulation of environmental and labour protections, which favoured the development of the industrial corridors and contributed to their increasing complexity. During a presentation organized for the Caravan at the Universidad Autónoma de Tlaxcala, researcher Samuel Rosado shared the map he uses to chart the growing presence of US and German capital since the signing of NAFTA. Between 2011 and 2016 alone, the automotive sector in the region grew around 60%. Despite the promises that the industrial corridors would create employment for local people, Rosado observed that **the manufacturing industry in Puebla and Tlaxcala only accounts for 16% of jobs.**

In the eyes of the local communities, industrialization drastically altered the region, as it involved a process of land dispossession promoted by the state itself. The changes in land use occurred thanks to state measures to facilitate the acquisition of large areas of land by TNCs. This was accompanied by rapid, uncontrolled urbanization and the growth of the number of vehicles.⁹¹ The residents of the area still have fond memories of drinking water directly from the rivers where they used to bath, swim and fish. They also speak of the rich biodiversity in the region which has practically disappeared.⁹² In parallel to the urbanization process, criminal networks specializing in sex trafficking of women and girls⁹³ and the theft of fuel from oil and gas and pipelines have proliferated in the region.

The communities began mobilizing in the mid-1990s in response to the emergence of diseases previously unknown to the region. In coordination with university researchers who carried out the earliest studies, they began linking the health problems to the pollution in the basin. In 2011, they filed a complaint with the Comisión Nacional de Derechos Humanos (CNDH or National Human Rights Commission) and in 2017, the Commission issued **Recommendation 10/2017** (CFJG and CAV 2017), which affirmed that the federal, state and municipal governments were responsible for the human rights violations caused by the contamination of the Atoyac and Xochiac Rivers.⁹⁴ The Recommendation also stated that the main causes of the pollution were the discharge of untreated municipal and industrial waste into the rivers; improper disposal and collection of solid waste; rapid demographic growth and uncontrolled industrialization in the region. Furthermore, it concluded that the chemical and biological pollutants from industrial wastewater exceed the limits set by environmental regulations. The CNDH based itself on previous studies that had detected the presence of high concentrations of mercury, chromium, arsenic, cadmium, nickel, lead, cyanide, copper, zinc, toluene, dibromochloromethane, chloroform, vinyl chloride, methylene chloride, phenols, benzene compounds, nitrite and nitrates, phosphate and xylenes, among others. It also stated that the presence of nitrogen was associated to the excessive use of fertilizers, detergents and industrial discharges processes that **have not been regulated by any Mexican standard.**

The CNDH established a close link between environmental quality, sanitation and health, exposing the authorities' negligence in addressing the pollution

91 Currently, 25% of the basin is occupied by urban areas (Rosado 2018, 117). Even though it is the second smallest state in Mexico, Tlaxcala is the second most urbanized (33.1 towns or cities for every 100 km²) and the fourth most densely populated (325 inhabitants per km² (CFJG, CAV et. al. 2019).

92 Rosado reports that only 18% of the natural vegetation cover remains in the basin (2018, 117).

93 See more about the human rights and gender programme of the Centro Fray Julián Garcés that focuses specifically on the issue of the trafficking of women and girls in the region: <https://www.centrofrayjuliangarces.org.mx/2019/11/17/programa-de-derechos-humanos-y-genero/>

94 See Recommendation 10/2017 at: https://www.cndh.org.mx/sites/default/files/doc/Recomendaciones/2017/Rec_2017_010.pdf

of the rivers in the basin and its impacts on the population. It also recognized serious omissions on the part of the government, such as the failure to register and monitor the use of more than 40 pollutants dumped in the Atoyac River or to take preventive and environmental restoration measures. While this process constitutes an important step in the recognition of the socio-environmental devastation in the region and its causes, it limited itself legally to making non-binding recommendations for authorities.

The consequences of the industrial corridors have been catastrophic for the population. The organizations of affected peoples have noted that based on official data, **between 2002 and 2016, 26,477 people died of cancer and 4,379 of kidney failure, and 906 miscarriages were reported.** The mortality rate for cancer in the entire Atoyac-Zahuapan basin is 13.5 times higher than the national average. According to the Centro Fray Julián, information updated by researcher Samuel Rosada (*forthcoming*) shows that **between 2015 and 2019, 11,343 people died from a malignant tumour; 3,750 from colon cancer; 1,348 from blood cancer and 1,148 from neoplasia in female genital organs.** It is estimated that in this period, **every four hours, one person died from one of these causes.** The areas with the highest mortality rates are the ones located less than seven kilometres from factories with over 100 workers. It should also be highlighted that the CNDH's Recommendation identified a high incidence of the following conditions in the region: diarrheal diseases, chronic endemic hydroarsenicism (or hydroarseniosis),⁹⁵ genetic damage and predisposition to cancer related to exposure to dioxins and furans and genotoxic potential. It also established a correlation between exposure to VOCs and the presence of myeloid leukaemia (CFJG, CAV et. al. 2019).⁹⁶

Box 5. The Communities' Proposal for the Full Clean-up of the Atoyac-Zahuapan Basin and Compensation to the Communities for the Harm

In 2017, following the issuance of Recommendation 10/2017 by the National Human Rights Commission, the organizations Coordinadora por un Atoyac con Vida (CAV) and Centro Fray Julián Garcés initiated a consultation process with the affected communities. Based on their results, they drafted a Community Proposal for the Full Clean-up of the Atoyac - Zahuapan Basin and Compensation to the Communities for the Harm⁹⁷ which includes the following measures:

1. The clean-up of the Alto Atoyac basin, including the beds of the rivers, streams, canals and ditches, and the establishment of targets for the restriction and continuous control of industrial discharges.
2. The restoration of the soil in the beds and banks of rivers and streams and on land adjacent to the federal zone.
3. The prevention, control and monitoring of pollution in the basin in the future.
4. The drafting and implementation of an emergency health plan for people who are ill due to the pollution of the basin.

95 Recommendation 10/2017 refers to the amounts of arsenic reported in the Atoyac River which are similar to the ones found by various studies in other aquifers in Mexico. The studies established "a relationship between the high levels of arsenic in the water, its intake in the population and the suffering of endemic chronic hydroarseniosis and various skin alterations" (CNDH 2017, 73).

96 The data presented here and in the documents of Centro Fray Julián Garcés and Coordinadora por un Atoyac con Vida are also from the systematization of the studies conducted by the team of researchers from the National Autonomous University of Mexico (UNAM) who have been collaborating with people in the region since 2003: Regina Montero from the Institute for Biomedical Research; Inés Navarro from the School of Engineering; Omar Arellano from the Faculty of Science; Paola Velasco Santos from the Institute of Anthropological Research and Rodrigo Gutiérrez Rivas from the Institute of Legal Research, among others.

97 The full version of this document is available in Spanish at: <https://www.centrofrayjuliangarcés.org.mx/wp-content/uploads/2019/11/Propuesta-comunitaria-27-10-17.pdf>

5. The provision of sufficient funding to carry out all of the Plan's actions.
6. The implementation of the appropriate measures for the reparation of the harm caused to the health, economy, cultural and dignity of the affected individuals, families and communities.

Source: CFJG y CAV (2020)

Reception of the #ToxiTourMexico Caravan by the organizations of affected peoples in Puebla in front of the Volkswagen factory, December 2019.

Photo: Martín Álvarez Mullally, OPSur



3.5 LIBRES ORIENTAL BASIN (PUEBLA)

***Revised by Oswaldo Villegas (MODAT CNPA MN) and Fabiola Lara**

In the state of Puebla, the organizations of affected peoples informed the Caravan of problems typical of a situation where the operations of different industries and megaprojects (wind farms and mines) overlap in the same area⁹⁸. TNCs are overexploiting the aquifers in the region to produce automobiles and export goods. Wastewater is also being dumped in the Atoyac River and further downstream, the river's water is used to produce food, which ends up being contaminated with hundreds of chemical substances. In this section of the report, we discuss some examples from this environmental hell.

98 The organizations that met with the Caravan are: Consejo Regional de Pueblos Originarios en Defensa del Territorio de Puebla e Hidalgo, Unión Popular de Vendedores Ambulantes (UPVA 28 De Octubre), Coordinadora Nacional Plan De Ayala Movimiento Nacional (CNPAMN), Movimiento para la Defensa del Agua y de la Tierra (MODAT-CNPAMN), Movimiento Independiente Obrero Campesino Urbano Popular (MIOCUOP CNPAMN), Movimiento de Autogestión Social Campesino Indígena Popular (MASCIP CNPAMN), Pueblos Unidos en contra de la Privatización del Agua (PUCPA), Ecotuzauapan, Asamblea Maseual Autónoma Del Agua, Colectivo Hermanos Serdán and Radio Xalli. For more details on all the megaprojects, see Caravana ToxiTourMexico (2020a).

Municipalities in Puebla are also experiencing the impacts of the industrial corridors in the Upper and Lower Atoyac-Zahuapan basin examined above. Communities there reported that the factories' presence has caused conflicts related to **land and water grabbing and pollution** in the Libres Oriental basin, which spans the states of Puebla, Tlaxcala and Veracruz. According to Lara (2021), what we are witnessing in the area is a process of low-cost land grabbing, as land is used to satisfy the needs of industry, which is causing the 'fragmentation of peasant farming and the destruction of the environment that it depends on'.

One of the main problems in the region is the alarming state of its water resources. Data from Conagua,⁹⁹ between 2015 and 2019 show that the water level in the Libres Oriental aquifer was so low that it could officially be declared a shortage, with a deficit of 1.1 million cubic metres in 2018. Alcocer et al. (2005, 74) warned that since 2000, the risk of the region's water sources drying up and desertification due to overexploitation is very real.

In the north and the centre of the basin, one finds industrial pig farms owned by the US-based Granjas Carroll (*see the box below*), Driscoll's' greenhouses¹⁰⁰ that grow fruit and vegetable for export, Iberdrola's solar farms and an Audi car factory, which operates as an extension of the Volkswagen factory in Puebla. These industries consume huge amounts of water. For example, between 190,000 and 260,000 litres of water are required to produce one ton of strawberries or blueberries for export. To produce one automobile, one needs close to 400,000 litres, although some sources calculate that over one million litres are necessary (Barlow and Clark 2002). Similarly, to produce one ton of pork, 2,333,000 litres of water are needed, which is equivalent to the amount of water that 12,748 people in Puebla use in one day (Lara 2021).

In addition to overexploiting the aquifer, TNCs such as Volkswagen Mexico (in Cuautlancingo) and landowners in the region use **hail cannons** to prevent the formation of hail to protect their operations. Local communities have been mobilizing against this technology for years, as it puts peasant farming at severe risk, particularly rainfed agriculture in the municipalities of Coronango, Cuautlancingo and Xoxtla. 'These companies deny their responsibility, even though we have heard explosions from the hail cannons and have seen planes flying overhead, which we believe are used to spray clouds with silver iodide every time a storm approaches', stated members of Movimiento para la Defensa del Agua y de la Tierra, Movimiento de Autogestión Social Campesino Indígena Popular and Ejidos de Puebla and Oaxaca. Authorities of the state of Puebla have not fulfilled their promises to carry out studies on this technology and compensate the communities. The organizations of affected peoples blame the use of the cannons for their land drying up, their crop losses and their impoverishment because they inhibit the natural replenishment of the water tables of the Libres Oriental

99 See: <http://sina.conagua.gob.mx/sina/tema.php?tema=acuiferos&ver=reporte&o=1&n=nacional>

100 Driscoll's produces berries (mainly strawberries), among other things. It exports 90% of its production, mostly to the US and Canada. It claims to employ 60,000 people in Mexico (see: <https://www.freshplaza.es/article/9233100/mexico-sigue-siendo-el-origen-con-mayor-crecimiento-para-driscoll-s-a-pesar-del-covid-19/>).

basin (MODAT-CNPAMN et al. 2020).¹⁰¹ The use of hail cannons is not regulated by Mexican law.

Furthermore, in relation to water, the Coordinadora Nacional Plan de Ayala-Movimiento Nacional (CNPA-MN) has denounced inequalities in the granting of the already scarce water use concessions. While the public administration facilitates the process for TNCs and big industry, peasant communities have to wait for years to obtain a license for a concession, as they are forced to go through a ton of paperwork, even when the concession is for water for human use (Hernández 2020).¹⁰² Local organizations report that drinking water wells and the few existing irrigation wells in the region are drying up, which forces them to dig deeper to find water. The lack of water is especially serious for peasant farming and one of the factors pushing people to move to big cities.

To the overexploitation of water and the practice of artificially preventing hail, one must add the **pollution generated by the three industries mentioned above**. In her analysis of the complexity of the processes causing pollution in the region, Lara (2021) explained that the use of pesticides and nitrogen fertilizers by export-oriented industrial agriculture causes damage to soil and water resources. The residues left by these substances form nitrogen compounds in the soil that are proven to be cancerogenic. Furthermore, the organizations of affected peoples affirm that the agrochemicals used cause respiratory, stomach and eye diseases and that the people who work for the agribusiness industry suffer the most harm due to greater exposure (Caravana ToxiTourMexico 2020a, 37).

As for the factory pig farms, the communities living nearby suffer from the stench of the waste lagoons and the incineration of dead and sick animals, soil pollution due to animal excrement and the intensive use of pharmaceuticals.¹⁰³ Lara reminded us that the soil in the basin is devoid of vegetation due to monocropping, solar farms and the industries located there. As a result, it is particularly vulnerable to ruptures in the protective covers of the hog waste lagoons, which can directly contaminate the aquifer with carcinogenic compounds (Lara 2021).

Box 6. Granjas Carroll's industrial pig farms

Owned by Smithfield, the biggest hog producer in the US¹⁰⁴, **Granjas Carroll de México (GCM)** began operating in the region in 1994, the year NAFTA was signed. According to Ribeiro (2014), Smithfield set up operations in Mexico after million-dollar lawsuits were filed against it for the serious pollution that its facilities caused in the US and 'to take advantage of the lack of regulation and oversight that Mexico offered as a de facto comparative advantage under NAFTA to highly polluting American factories'. The TNC first established itself in the Perote Valley (Veracruz) and then expanded to the Guadalupe Victoria Valley (Puebla). It is the biggest hog producer in Mexico and accounts for 10.5% of total production (approximately 1.3 million animals)¹⁰⁵. It is worth recalling

101 The organizations of affected peoples have also documented the use of silver iodide in the area of Tehuacán (personal communication of O. Villegas, 27/8/2021).

102 The Heineken factory in the Rafael Lara Grajales municipality is also one of the TNCs that overexploits water (personal communication of O. Villegas, 27/8/2021).

103 The TNC's practice of burying dead animals also pollutes the aquifer (personal communication of O. Villegas, 27/8/2021).

104 Founded in the 1930s, Smithfield became the biggest hog producer in the world, with operations in Mexico, Poland, Romania, Germany and the UK. In 2013, the world's biggest pork producer - Shuanghui International - acquired Smithfield. Shuanghui International changed its name to the WH Group in 2014 (see: <https://www.smithfieldfoods.com/>).

105 See: <https://granjascarroll.com/quienes-somos/>

that in 2009, the H1N1 flu (swine flu) originated in this company's mega-farms in Veracruz.¹⁰⁶

Besides the aforementioned socio-environmental impacts generated by GCM in the region local organizations denounce the TNC for its role in land dispossession. They claim that in the municipality of Cuyuaco, the TNC intends to establish new farms, each on 40 hectares of land, and to do so, it goes through the Procuraduría Agraria de Puebla (Agrarian Ombudsman Office of Puebla) to intimidate peasant farmers and pressure them to sell their land. In other places, such as Santa Cruz Coyotepec, close to Ciudad Serdán, residents succeeded in stopping GCM from installing new factories, but it still plans to expand its operations in Tlaxcala and Veracruz (MOSIV-CNPAMN et al. 2020).

The automotive industry, for its part, uses chemicals in all stages of production, which are released into the air and soil and discharged into bodies of water and drainage systems. For example, for glass and mirrors, it uses benzene derivatives, heavy metals and effluents containing grease and oil; tires and plastic parts undergo thermochemical treatment, a process that uses benzene, methylene chloride, phenol, heavy metals, dioxins and furans. Lara (2021) highlights the 'obsolescence of environmental regulations' in this area. While Mexican standards establish less than 20 parameters for industrial and urban discharges into rivers and aquifers, the automotive industry includes around 100 substances in its declarations to the pollutant release registry (RETC).

The **criminalization** of the grassroots movements working to denounce the socio-environmental conflicts in Puebla has increased in recent years. For example, 50 members of the Movimiento para la Defensa del Agua y de la Tierra (MODAT CNPAMN) are under investigation by the State Prosecutor's Office (Caravana ToxiTourMexico 2020a). In 2019, the Centro Mexicano de Derecho Ambiental (CEMDA) classified this federal body as second on the list of national entities with the highest number of attacks against environmental rights defenders.¹⁰⁷ The organizations of affected peoples reported that several local leaders have had to be put under the protection of the national protection mechanism for human rights defenders and journalists and they denounce the impunity that prevails in the murders of Manuel Gaspar Rodríguez, Antonio Esteban Cruz, Esther Pacheco Orozco and Frumenio Solis Cruz (Villegas 2021).

106 Silvia Ribeiro (2020), a researcher with the ETC Group, explains that the swine flu appeared in the megafarms due to the large number of farm animals raised in confinement in overcrowded, unsanitary conditions, with weakened immune systems, which are constantly fed antibiotics and antiviral drugs.

107 See: <https://www.cemda.org.mx/wp-content/uploads/2020/03/informe-personas-defensoras-2019.pdf>

Box 7. Examples of actions and demands of the organizations of affected peoples in Puebla

One of the strategies deployed by social organizations from Puebla to address the issues affecting their territory was to submit a proposal for a General law on the Consultation of Indigenous Peoples and Communities¹⁰⁸ to the National Congress in 2019. They also submitted the draft bill to the Congress of Puebla. However, both entities have ignored this initiative until now (Villegas 2021).

In relation to the **overexploitation of water**, local organizations demand that the federal government propose that the state and national congress cancel all water and land concessions approved in the last 18 years. They argue that the Ministry of Environment should ensure compliance with the law so that environmental impact assessments are duly carried out. Furthermore, they demand that Conagua halt the approval of new concessions and permits for wells for TNCs and grant them to peasant communities instead (MOSIV-CNPAMN et al. 2020).

As for the use of technologies that artificially prevent hail, it should be highlighted that after intense mobilizations in 2020, progress has been made: the House of Representatives of Puebla drafted a law on this issue. However, the affected communities believe that this law is insufficient, as it merely regulates the use of such technologies, instead of banning them. They presented a proposal to the Congress of Puebla to request that the new law take article 15 of the Rio Declaration on Environment and Development into consideration. More specifically, they asked that the precautionary principle and the principio in dubio pro natura be adopted to ensure that when scientific uncertainty about the use of a technology exists, the defence of the environment prevails. In light of this, they demand a ban on the use of hail cannons and silver iodide to inhibit hail. Although Congress incorporated part of their proposals, local organizations affirm that the law is not being duly observed, as the cannons continue to be used (Villegas 2021).

108 See: <https://www.facebook.com/CN-PA-MN-248276702019096/photos/a.922848027895290/1168374876675936>



3.6 THE NORTH OF THE ISTHMUS OF TEHUANTEPEC (VERACRUZ)

***Revised by Dr. Lorenzo Bozada (Ecología y Desarrollo Sostenible)**

In Coatzacoalcos (Veracruz), the Caravan met with the organizations of affected peoples from Córdoba, Cuitláhuac, Jáltipan de Morelos, Minatitlán, Cosoleacaque, Nanchital, Boca Uxpanapa and Capoacan, among other places, to discuss the impacts of industries in the north of the Isthmus of Tehuantepec.¹⁰⁹ The region is home to the Uxpanapa Industrial Corridor and **one of the oldest and largest chemical and petrochemical industrial zones in Latin America**. The first refinery was built in Minatitlán in 1909 and then, in the 1960s, an industrial port complex was constructed in the delta of the Coatzacoalcos River. For over 100 years now, the area has been accumulating pollution generated by PEMEX and foreign TNCs from the petrochemical sector (Caravana ToxiTourMexico 2020a). In Coatzacoalcos, there are currently 32 private chemical factories and the Cangrejera, Morelos and Pajaritos petrochemical complexes (PCs). In Minatitlán, there is the Cosoleacaque PC and the Lázaro Cárdenas refinery. The refinery's waste is used to produce coke, most of which is exported via the Coatzacoalcos port; a smaller portion is stored **out in the open** by the Spanish TNC García Munté Energía in Jáltipan (*for more on this TNC, see section 4.9*).

Armando Luis, activist and leader of the fishing community in Boca Uxpanapa and participant in the #ToxiTourMexico Caravan in Coatzacoalcos (December 2019). He died in October 2020 from cancer.

Photo: Martín Álvarez Mullally, OPSur

109 Among the organizations of affected peoples were: Ecología y Desarrollo Sostenible en Coatzacoalcos A.C., Asociación de Productores Ecologistas Tatzexco (APETAC) de Ixhuatlán del Sureste, Organización Pesquera de la Boca del Uxpanapa, Río Coatzacoalcos, Asociación civil "Chogosteros en Acción", Jáltipan de Morelos and Movimiento Regional Indígena en Defensa y Respeto por la Vida de la Sierra de Santa Marta, from the north of the Isthmus or the region of Sotavento Veracruzano, and the Coordinadora de los pueblos en defensa del río Atoyac.

As in the other five environmental hells examined so far, the affected peoples from the north of the Isthmus of Tehuantepec have worked for decades to document the pollution. They base their efforts not only on their own experience and the research findings of scientists committed to the cause, but also the compilation of sectoral studies conducted in the region. We will highlight here only some of the most critical elements, which are by no means exhaustive due to the complexity of the devastation.

The first issue is related to **water pollution and has serious repercussions for human health**. Bozada and Rodríguez (2020), members of Ecología y Desarrollo Sostenible, Asociación de Productores Ecológicos Tateco de Ixhuatlán del Sureste and Organización Pesquera de la Boca del Uxpanapa, managed to find a study carried out between 1982 and 1988 by Centro de Ecodesarrollo, which is considered one of the most thorough assessments of the local environmental and social situation. The results of a geochemical analysis performed on the Coatzacoalcos River, the Tonalá River and the Laguna del Ostión allowed the authors of the study to identify an area in a state that was “critical” to human health. They found pathogenic microorganisms and sterols from human faecal matter in what was supposed to be water fit for drinking. They concluded that ‘if sewage were treated before being discharged into rivers or the lagoon, faecal contamination and bacteria that cause purulent infections (...) would surely be reduced to tolerable levels’ (Botello and Páez 1987, 47). The study also confirmed the presence of high concentrations of metals, fossil hydrocarbons and organochlorine pesticides in sediments and aquatic organisms. More specifically, highly cancerogenic polycyclic aromatic hydrocarbons (PAHs) were detected in edible species (fish, clams, crabs and oysters) (1987, 13-32).

Furthermore, there is strong evidence of mercury contamination of the Coatzacoalcos River, which can be attributed to the operations of a chlor-alkali plant owned by the IQUISA Corporation (member of the Cydsa group) since 1968, the refinery in Minatitlán and private chemical factories operating in the PCs in the region. A study conducted nearly ten years ago on hair samples from people who consume fish from the river detected mercury levels that were between 1.7 and 4 times higher than the limit established by the US Environmental Protection Agency (Bozada and Albert 2013).

It is also important to note that the petrochemical industry in the region has a long track record of **spills and accidents affecting bodies of water**. For instance, in 2004, in the municipality of Nanchital, a pipeline broke, spilling 5,000 barrels of crude oil (Botello et. al. 2005, 667). Four months after the accident, at the same location, an ammonia leak claimed the lives of five PEMEX workers and 6,000 people had to be temporarily relocated.¹¹⁰

Despite the evidence of socio-environmental devastation, authorities have not taken adequate measures to effectively address this issue.

110 See: <https://www.proceso.com.mx/nacional/2005/8/7/negligencia-criminal-21951.html>). For an in-depth analysis of chemical emergencies in the country, see: Albert, L., Jacott, M. *México Tóxico. Emergencias químicas*. Mexico City: Editorial Siglo XXI, 2015.

Since there is no wastewater treatment system, waste continues to be dumped directly into the Coatzacoalcos River and the Gulf of Mexico. Bozada and Rodríguez (2020) warn that heavy metals such as iron, nickel, copper, magnesium, chromium, cobalt, lead and mercury continue to be found in commercial fish species in the Coatzacoalcos and Tonalá Rivers and the Laguna del Ostión.

Air pollution, which is interlinked with the impacts on water, represents another major problem in the region. The Cangrejera and Morelos PCs and the Lázaro Cárdenas refinery all emit benzene, toluene and xylene, which are associated with the incidence of chronic kidney failure in the area between Coatzacoalcos and Minatitlán, as well as VOCs that end up in the rivers (Bozada and Rodríguez 2020). In the town of Capoacan, near the refinery, people also complain of the effects of coke particles brought by the wind to the area. In addition to the constant exposure of the local population to the emissions, accidents occur in the industries, making the situation worse. One of the most serious incidents occurred at the Pajaritos PC in 2016. An **explosion at Mexichem-PEMEX vinyl petrochemical plant (Clorados III)** generated a toxic cloud that spread over a 10-km radius around the factory, took the lives of 32 employees and injured close to 160.¹¹¹ The affected communities reported that over 300,000 residents were exposed to the ashes from the explosion, which contained high levels of polychlorinated dioxins and furans (Caravana ToxiTourMexico 2020a).¹¹² Ten years before the explosion, studies on the eggs of free range chickens gathered near the Pajaritos PC found dioxin levels six times higher than the limits established by the European Union and 1.5 times above limits in the US (Bozada and Bejarano 2006). Dioxins are known for their toxicity and epidemiological research has found that they are linked to cardiovascular disease, diabetes, porphyria and endometriosis, among other health problems. Hernández and Bozada (2020) affirm that despite the high incidence of different kinds of cancer (breast, pancreatic, ovarian, prostate, colon, myeloid leukaemia and Hodgkin's lymphoma) in the region, Mexican authorities have not conducted a survey of diseases linked to air pollution.¹¹³

111 See: <https://www.sinembargo.mx/09-04-2019/3563776>

112 On 20 April 2021, another fire occurred in the Pajaritos petrochemical complex when a natural gas pipeline exploded close to the Sales del Isthmus plant owned by the Cydsa group (see: <https://www.jornada.com.mx/notas/2021/04/21/estados/explosion-e-in-cendio-en-la-petroquimica-de-pajaritos/>).

113 For illustrative purposes, the organizations of affected persons obtained data on some of these illnesses through request for information no. 0064100943219 submitted to the Plataforma Nacional de Transparencia (National Transparency Platform) for the January-February 2019 period. This data confirmed that in the IMSS Delegation of Veracruz South, the Hospital General de Zona HGZ 32 in Minatitlán had the highest number of cancer cases on record: 252 patients were reported to have cancer (the majority of which were women). The most common kind of cancer was breast cancer (119 people). Furthermore, this hospital was the only one in the Delegation where 20 cases of lymphoblastic leukaemia and eight cases of Hodgkin's lymphoma have been reported (Caravana ToxiTourMexico 2020a).

Box 8. The main demands of the affected peoples of the north of the Isthmus of Tehuantepec

The main demands for Semarnat are:

- ▶ The remediation of areas contaminated by dioxins and furans in the region of Coatzacoalcos and by coke in Jáltipan.
- ▶ An assessment of air pollutants in the petrochemical zone of Coatzacoalcos and around the Lázaro Cárdenas refinery in Minatitlán.
- ▶ A chemical analysis of the coke produced by the refinery in Minatitlán and a study on the emission of coke particles on the island of Capoacan.
- ▶ The establishment of adequate solid waste management sites in the region of Coatzacoalcos.
- ▶ The adoption of measures to ensure that TNCs have their own wastewater treatment plants and do not discharge wastewater into local bodies of water.
- ▶ Compensation from the TNCs for the damage they have caused.
- ▶ The adoption of binding measures to oblige TNCs to create self-sustaining ecosystems in proportion to or the same size as the original ecosystems they have destroyed or used.
- ▶ Coordination between Semarnat, the Ministry of Health, Profepa, Civil Defence, Conagua and the Human Rights Commission on the monitoring of TNCs' compliance with the law.

In relation to the proposals for the Ministry of Health, there is the need to carry out research on the following:

- ▶ An epidemiological study on all women aged 18 and older to detect breast cancer.
- ▶ An epidemiological study on the incidence of respiratory diseases in the population of Capoacan.
- ▶ A study on the population of the region of Coatzacoalcos to detect contamination from mercury, dioxins, furans and pesticides.

In relation to coke in particular, the affected peoples demand that Semarnat, the Ministry of Health, Cofepris and Conacyt carry out, together with the affected communities, toxicological and environmental studies to determine the health impacts caused by exposure to this substance.

Finally, the local organizations of affected people demand that a legal review be carried out to help environmental authorities regulate the production, storage, transport and environmental impacts of coke; and improve Standard 149-Semarnat-2006 and the one on Environmental Impact Assessments.

Sources: *Caravana ToxiTourMexico (2020a) and Hernández Gijón (2020).*



Water pollution in the Santiago River in El Salto

Photo: Martín Álvarez Mullally, OPSur

EUROPEAN TRANSNATIONAL CORPORATIONS OPERATING IN THE AFFECTED REGIONS

It is important to remember that despite the evidence of the health and environmental state of emergency that exists in the regions and the organizations of affected peoples' tremendous effort to document the cases over the years, it is still difficult to prove the direct liability of the TNCs in many of cases discussed above. This is due to the problematic deregulation process highlighted earlier, which is linked to the failure of Mexican authorities to adequately monitor the impacts generated by TNCs. To this, one must add the complexity of a wider process of devastation resulting from the combined action of a large number of corporations operating in increasingly dense industrial corridors. This is consolidating a framework that guarantees corporate impunity.

As we observed above, US and European TNCs are present in practically all the regions the Caravan visited. Each one warrants a thorough examination of the impacts of its operations on human rights and the environment. Even so, as noted in section 2 above, we are in the midst of the negotiations on a new agreement between the European Union and Mexico that could strengthen the protections for European TNCs via an investment protection chapter. With the collaboration of the European Network of Corporate Observatories (ENCO) and other individuals who monitor TNCs, we offer below examples of TNCs that operate in the environmental hells described above and benefit from the political and/or economic support of European governments. We will also see that Mexico is not the only country of the Global South where TNCs have been denounced for generating socio-environmental conflicts.

4.1 EUROPEAN CAPITAL IN THE UPPER SANTIAGO RIVER BASIN

Cindy McCulligh (CIESAS)

The first industrial facility owned by European capital in the Upper Santiago River Basin was the Nestlé (Switzerland) factory in Ocotlán. Several decades later, in 1965, another factory belonging to a Swiss corporation, Ciba-Geigy, was established on the banks of the Santiago River. The Ciba-Geigy plant in the town of Atotonilquillo produced everything from textile auxiliary agents, dyes and pharmaceutical products to granular agrochemicals (STPS 2006). Local people also associate "La Ciba", as the factory is often called, to the deaths of thousands of fish and the degradation of the river. Witnesses state that in the 1970s, the river's water was red or purple, depending on what the factory was producing at the time. The factory later became part of Ciba Especialidades Químicas and in 2006, it was sold to US chemical corporation Huntsman, which continues to produce dyes for several industries. Also, in 2015, Solvay (Belgium) bought a factory from US-based Cyanamid (later Cytec), which also produced specialty chemicals, mainly for the mining sector, and operated in the town of Atequiza, located on the banks of

the river.¹¹⁴ Cytec-Solvay was one of the 29 corporations identified by the state of Jalisco in February 2020 for having violated regulations on the discharge of waste into the Santiago River.¹¹⁵

Currently, in the area that goes from the basin where the Zula River originates to El Salto de Juanacatlán, there are at least fifteen European corporations with manufacturing operations listed in Table 1. Data on these TNCs' effluents is scarce or non-existent. Some of them, located in the peri-urban zone in the El Ahogado subbasin, dump their waste in the sewage system, which ends up in the El Ahogado treatment plant. However, this plant was not designed to handle industrial waste and in 2016, **an investigation by Greenpeace Mexico revealed the presence of toxic substances in treated water from this plant.** Among the 101 semi-volatile organic compounds identified in the water, 56 are **"highly toxic" and carcinogenic and can 'cause hormonal disruptions, damage and malformation in fetuses and in women and men's reproductive systems'**. Although these substances are not controlled by discharge regulations in Mexico (NOM-001-Semarnat-1996), they are subject to strict regulations and monitoring programmes in Europe (Greenpeace Mexico 2016).

Other TNCs dump their waste directly into the Santiago River or one of its tributaries, but there are no public data on the quality of effluents. As for German corporation ZF and its shock absorbers factory, ZF Suspension Technology Guadalajara, evidence suggests it is failing to comply with standards. A study carried out for the Comisión Estatal del Agua (State Water Commission) in 2006 found that level of toxicity of the water in the discharges of ZF (referred to as Sachs Boge) was moderate (8.1 units).¹¹⁶ As a result of tests on its discharges by the Comisión Nacional del Agua (Conagua, the National Water Commission) **in 2012, ZF was fined for non-compliance with standards.**¹¹⁷ After another inspection conducted in 2017, an administrative process was initiated to fine the TNC for the same reason.¹¹⁸ The absence of more detailed information can be explained by both the limited number of inspections and deficiencies in water quality monitoring, which currently does not include discharges. To illustrate this, between 2010 and 2017, Conagua carried out only 269 inspections per year in Jalisco, a state where there are over 41,000 users with extraction or discharge permits. At this rate, Conagua will need 153 years to inspect all users with permits in the state of Jalisco.¹¹⁹

114 See: <https://www.solvay.com/en/press-release/solvay-successfully-completes-acquisition-cytec-and-launches-integration-plans>.

115 See: <https://partidero.com/ventilan-a-29-empresas-que-contaminan-el-rio-santiago/>.

116 The organism *Vibrio fischeri* (Microtox) was used for the test. To test for severe toxicity, one must determine the ratio of dilution of the original sample where half of the population of organisms dies (CE50%) and then use this ratio to calculate the units of toxicity (UT) in the sample (CEAS and AyMA 2006).

117 Inspection PNI-2012-LSP-269, information provided in response to request for public government information no. 1610100039115.

118 Inspection PNI-2017-LSP-145, information provided in response to request for public government information no. 1610100154419.

119 This estimate was made in August 2020 based on data provided by CONAGUA (see: <https://www.gob.mx/conagua/documentos/derechos-y-obligaciones-de-los-usuarios-ante-una-visita-de-inspeccion> and Registro público de derechos de agua (REPDA) (see <https://app.conagua.gob.mx/Repda.aspx>).

■ **Table 1. Main European transnational corporations operating in the Santiago River basin**

Transnational corporation	Country of origin	Location of the factory	Activities at the local factory
Amtor	United Kingdom	Ixtlahuacán de los Membrillos	Produces plastic bottles
Continental	Germany	Tlajomulco de Zúñiga	Produces electrical and electronic equipment for motor vehicles
Cytec - Solvay	Belgium	Ixtlahuacán de los Membrillos	Manufactures chemicals
Diageo	United Kingdom	Atotonilco El Alto	Produces tequila (Don Julio, Casamigos)
DSM	The Netherlands	Tlajomulco de Zúñiga	Produces pharmaceutical preparations
Hella	Germany	El Salto and Tlaquepaque	Three factories that produce electronic components and lighting systems for the automotive industry
Ikor	Spanish State	Tlajomulco de Zúñiga	Manufactures electronic circuits
Mannesmann Precision Tubes (Saltzgitte Group)	Germany	El Salto	Produces steel tubes mainly for the automotive industry
Nestlé	Switzerland	Ocotlán	Two factories that produce baby formula
NXP Semiconductors	The Netherlands	Tlaquepaque	Produces semiconductors
Pernod Ricard	France	Arandas	Produces tequila (Olmeca Altos, Avión)
Siemens	Germany	Tlajomulco de Zúñiga	Produces electric motors and generators
Trouw Nutrition (Nutreco)	The Netherlands	El Salto	Premixes and animal food
Voit	Germany	El Salto	Produces stamping parts for the automotive industry
ZF	Germany	Tlajomulco de Zúñiga	Produces shock absorbers for motor vehicles

Source: Table elaborated by Cindy McCulligh based on data from Directorio Estadístico Nacional de Unidades Económicas (DENUE)¹²⁰.

4.2. NESTLÉ IN THE SANTIAGO RIVER BASIN

Cindy McCulligh (CIESAS) and Multiwatch

Based in Switzerland, Nestlé is the largest food and beverage company in the world. It has a very broad range of products: bottled water, coffee, pet food, baby nutrition, confections, breakfast cereals, soups and sauces, frozen foods and healthcare nutrition, among many others. Since January 2017, Mark Schneider is the CEO of Nestlé. The TNC has built an empire of around 2,000 brands known worldwide, such as Nespresso, Nescafé, Maggi and Mövenpick, and is present in 187 countries. In 2019, Nestlé generated 86 billion euros in sales and a net profit of 11.7 billion euros.¹²¹ In

120 See: <https://www.inegi.org.mx/app/mapa/denue/default.aspx>.

121 See: <https://www.nestle.com/sites/default/files/2020-02/2019-full-year-results-press-release-en.pdf>.

1930, the TNC arrived in Mexico as a food importer. Only five years later, it opened its first factory in Ocotlán, Jalisco. Back then, Nestlé's focus was on milk production and it started the first "milk district" in the country.¹²² At present, the Nestlé factory in Ocotlán produces baby formula for 21 Latin American countries.

In recent decades, several studies of the Santiago River have included **analyses of the effluent from this factory, consistently demonstrating non-compliance with the Mexican discharge standard (NOM-001-Semarnat-1996)** (McCulligh 2020). In a 2003 study undertaken at the request of the Jalisco State Water Commission, samples of Nestlé's effluent were taken on three occasions. Researchers found a level of biochemical oxygen demand (BOD₅) almost twelve times higher than permitted in the NOM-001 standard for "B"-type rivers, with an average of 898 milligrams per litre (mg/L) versus a permissible maximum monthly average of 75 mg/L.¹²³ **Nestlé's effluent also failed to comply on other parameters, with almost double the limit for oils and grease (29.2 mg/L versus a limit of 15 mg/L), and for total nitrogen (76.3 mg/L versus 40 mg/L), as well as an excess of total suspended solids (TSS)** (AyMA 2003). A further parameter that is worth noting, despite its absence from the NOM-001, is chemical oxygen demand (COD), an indicator of the presence of organic and inorganic substances in a sample susceptible to oxidization by a strong oxidizing agent. In 2003, average COD in Nestlé's wastewater was 1.263 mg/L (AyMA 2003).¹²⁴

Non-compliance was also proven in a 2006 study, also contracted by the State Water Commission. A sample of Nestlé's effluent was again analysed, finding BOD₅ levels almost five times the limit for the daily average (738 mg/L vs. 150 mg/L) and concentrations of oils and grease more than 50% above the limit, at 39.5 mg/L. COD was also high, at a level of 1.152 mg/L (CEAS & AyMA 2006). More recently, in a 2011 study by the Mexican Institute for Water Technology (IMTA), the researchers used as reference the limits for "C"-Type Rivers, as the river had been reclassified. In their results for Nestlé, non-compliance continued for the same parameters in three monitoring campaigns undertaken in 2009 and 2010. For BOD₅, **with a maximum permissible daily average of 60 mg/L, Nestlé discharged at almost 20 times this concentration (1.175 mg/L)**. For nitrogen, it was five times the limit (131 mg/L versus 25 mg/L) and more than 19 times the limit for phosphorus (193 mg/L versus 10 mg/L). In one sample, the factory released a concentration of COD *38 times the applicable limit* in the Federal Duties Law at that time for "C"-type rivers (3.841 mg/L versus 100 mg/L) (IMTA & CEA Jalisco 2011).

A further source of information on Nestlé's wastewater is the record for inspection PNI-2010-LSP-382 and its appendices, which lay out the details of the Conagua inspection of 25 November 2010¹²⁵ Among the appendices to the record, Nestlé presented diverse analyses of its effluent undertaken for them by private laboratories in 2010. As expected, these results do not demonstrate such high levels of pollution as found in the aforementioned studies. A company is free to choose the date and time

122 See: <https://www.nestle.com.mx/aboutus/historia>. By milk districts the company understands having direct contracts with local farmers and an efficient milk collection system (Mack, Klasen & Pogge 2009).

123 It should be noted that the NOM-001 standard contemplates three classifications for the country's rivers:

- A: has the least stringent limits and refers to the agricultural irrigation,
- B: is somewhat more restrictive and is related to public-urban,
- C: for protection of aquatic life, sets the strictest limits for the same parameters.

In 2003, the Santiago River in Ocotlán was classified as "B", although the classification from Ocotlán to the Arcediano site (to the north of the Guadalajara Metropolitan Area) was changed to "C" as of 1 January 2009. This change was generated based on the version of the Federal Duties Law published in the Official Gazette of the Federation on 13 November 2008, specifically transitory article six (http://www.diputados.gob.mx/LeyesBiblio/ref/lfd/LFD_ref36_13nov08.pdf).

124 However, when COD was included in the Federal Duties Law (LFD, article 278-B) at the end of 2007, taxes were applicable for concentrations of this parameter above 200 mg/l for "B"-type water bodies. The limits set in the LFD differ from those indicated in the NOM-001, as they are for tax purposes. Users exceeding the limits in the LFD must pay duties, supposedly as part of the "polluter pays" principle.

125 This inspection report was accessed through the governmental public information request folio 1610100211113, where-in copies were requested of CONAGUA inspection records for inspections carried out on users of national water bodies in the municipality from Ocotlán, Jalisco, during the years 2000 to 2013. The other inspection acts cited come from request folio 1610100211213 for the municipality of Poncitlán; folio 1610100211413 for the municipality of Ixtlahuacán de los Membrillos, and folio 1610100211013 for the municipality of El Salto. All the inspection records for 2014, come from information request folio 1610100014915. These requests can be consulted on the website <https://www.infomex.org.mx/gobierno/efederal/home.action>

when the private laboratory will take samples of its wastewater. Even so, in five of the seven reports, official limits for nitrogen were exceeded, with up to 120 mg/L. In some reports, there were excess levels of total suspended solids (TSS) and phosphorus. With respect to COD, the analyses found levels that varies from 59.7 to 527 mg/L. More recently, there was another analysis of its effluent attached to a 2014 inspection report (PNI-2014-LSP-094), which reported a nitrogen concentration of 129 mg/L. Then, in 2018, Conagua undertook inspections at both of Nestlé's factories in Ocotlán. Laboratory analyses found that the effluent from both factories exceeded the limits established in their discharge permits (in one case for faecal coliforms and in the other for total nitrogen, total phosphorus and faecal coliforms), and both factories were fined MX\$132,540 as a result.¹²⁶ **Non-compliance seems to be a constant with Nestlé in the Santiago River Basin.**

The TNC maintains that in 2012, 'we strengthened our Nestlé Environmental Requirements (NER) for water quality and effluent discharge to ensure we go beyond compliance with the legal requirements of the markets in which we operate' (Nestlé 2016, 153). It indicates that since 2017, a digital monitoring tool is employed to ensure that all the plants 'meet the exacting standards of our Nestlé Environmental Requirements for water quality' (Nestlé 2019, 41). Despite repeatedly mentioning their own requirements, they do not define them when it comes to wastewater. The concrete commitment is only to 'comply with all local water regulations',¹²⁷ which Nestlé maintains is also the case in Mexico where they affirm that they have wastewater treatment plants and comply with local regulations.¹²⁸ In Ocotlán, as we have seen, the TNC has not fulfilled this commitment over many years, violating Mexican regulations as shown by repeated testing. **While in 2010 it reported an average COD concentration in its effluents globally of 78 mg/L (Nestlé 2010, 41), effluent samples taken that year from its local factory exceeded that average almost 50 times.**

At the global level, the TNC reported for 2019 an even lower level of COD (55 mg/L), while in Jalisco, it continued to be identified as a polluter. Although the local authorities have been hand in glove with industry for decades, in February 2020, the state government published a list of the 29 industries that contaminate the Río Grande de Santiago, and Nestlé was one of them.¹²⁹

126 These inspection reports were accessed through the governmental public information request no. 1610100157220 and 1610100157320 related to inspections PNI-2018-LSP-149 and PNI-2018-LSP-168.

127 See: <https://www.nestle.com/csv/impact/water/water-treatment>

128 In response to a query sent via Twitter direct message regarding the Nestlé Environmental Requirements for effluent discharge, and specific parameters that Nestlé factories must comply with when discharging effluent in Mexico (24 July 2020), Nestlé Consumer Care answered the following (29 July 2020): '1. - Nestlé's requirements on effluent discharge are always to meet the requirements of the country or locality in which we operate. 2.- In Mexico, every locality may have different discharge requirements depending on the receiving body in which we dispose of our wastewater. Nestlé has wastewater treatment plants in all its manufacturing operations to ensure that the required standards are met. If you would like more information on us, we invite you to visit our website at <http://nestle.com.mx>' (our translation).

129 See: <https://decisiones.com.mx/pais/jalisco/nestle-en-la-lista-de-empresas-ligadas-a-contaminacion-del-rio-santiago/>. Nestlé denies its responsibility. Instead, it emphasizes the jobs it has generated in the region, such as the ones at a new factory in the municipality of Ocotlán that started operations in 2016, which tripled the company's capacity in Mexico. In its press release on the inauguration of this new factory, Nestlé also highlights its "environment-friendly technologies" (<https://www.nestle.com/sites/default/files/asset-library/documents/media/news-feed/nestle-nantli-6october2016-english.pdf>). In contrast, the evidence from the studies of water pollution mentioned above show a very different reality.

Box 9. Social and environmental conflicts associated with Nestlé's operations in the Global South

Dairy production: An investigation in 2018 showed that even though Nestlé claims to have adopted the UNICEF/WHO code, which prohibits advertising and promoting infant formula, it continues to use often illegal methods to target mothers in the poorest parts of the world, encouraging them to choose powdered milk over breastfeeding: 'Nestlé and three other companies were offering doctors, midwives and local health workers free trips to lavish conferences, meals, tickets to shows and the cinema and even gambling chips, earning their loyalty'.¹³⁰ Additionally, Nestlé is unfairly competing with local small farmers and small-scale vendors in dairy markets. GRAIN has recently exposed 'the ambitions of big dairy companies, such as Nestlé, and a growing number of other wealthy players that want to take over the entire dairy chain in the South, from the farms to the markets'.¹³¹

Palm oil production: In 2009, Greenpeace reported that through its palm oil companies, Sinar Mas Group, a Nestlé supplier, was engaging in land clearance in deep peat and rainforest in Indonesia, without environmental impact assessments or timber cutting permits. This has had devastating impacts on biodiversity and local communities, while also contributing to climate change.¹³² Nestlé announced it would cease buying palm oil from suppliers linked to deforestation in 2010.¹³³ Nonetheless, in 2019 a new report revealed that Nestlé was buying palm oil from producers linked to 10,000 fire hotspots in Indonesia.¹³⁴ Three years earlier, the Singapore-based agri-business corporation Wilmar, one of Nestlé's suppliers involved in that case, was also denounced by Amnesty International for human rights abuses and in particular child labour in hazardous conditions in Indonesia.¹³⁵ In Sabah (Malaysia), a Solidar Suisse report uncovered that Nestlé was directly and indirectly linked to palm oil production, where child labour and other human rights abuses were committed.¹³⁶

Assassinations of trade unionists: Murders of workers and trade unionists in Nestlé's factories in Colombia since 1986 have risen to 19. In 2018 and 2019, there were new cases of assassinations of unionists who worked for Nestlé in Bugalagrande, Colombia.¹³⁷ The role of the corporation has not yet been satisfactorily clarified. Furthermore, Nestlé is accused of violating collective bargaining agreements in Colombia by hiring temporary workers instead of permanent employees or by simply dismissing sick workers.¹³⁸

Access to clean water as a basic human right: In 2012, residents near the Nestlé water bottling plant in Sheikhpura (Pakistan) complained about the polluted drinking water that was making children sick. Nestlé was extracting clean water from a deep well and selling it as bottled water at prices the local population could not afford.¹³⁹ In October 2018, Nestlé had to report to the Supreme Court of Pakistan due to the shortage of water in the country. An audit report showed that

130 See: <https://www.theguardian.com/lifeandstyle/2018/feb/27/formula-milk-companies-target-poor-mothers-breastfeeding> and https://en.wikipedia.org/wiki/Nestlé_boycott

131 See: <https://www.grain.org/en/article/4259-the-great-milk-robbery-how-corporations-are-stealing-livelihoods-and-a-vital-source-of-nutrition-from-the-poor>

132 See: <https://archivo-es.greenpeace.org/espana/PageFiles/181722/sinarmasR-SPOgreenwash.pdf>

133 See: <https://www.environmentalleader.com/2010/05/nestle-quits-sinar-mas-after-greenpeace-campaign/?amp=1>

134 See: <https://www.greenpeace.org/international/press-release/25675/burningthehouse/>

135 See: <https://www.amnesty.org/en/latest/news/2016/11/palm-oil-global-brands-profit-from-child-and-forced-labour/>

136 See: https://www.solidar.ch/sites/default/files/palmoel_report_2019_e_web.pdf

137 See: <https://multiwatch.ch/ermordung-des-nestle-gewerkschafters-gilberto-espinoza-victoria/>

138 See: <https://multiwatch.ch/nestle-gv-multiwatch-stellt-kritische-fragen-zur-ermordung-von-gewerkschaftern/>

139 See: <https://www.bottledlife.com/home>, <https://www.alliancesud.ch/en/file/10465/download?token=pOKindGr>

the TNC extracted around 4.43 billion litres of water between 2013 and 2017 and paid virtually nothing. Of the water pumped out, 2.5 billion litres were processed and sold in bottles, while 43% or 1.9 billion litres were wasted.¹⁴⁰ The exploitation of water sources by Nestlé has also been denounced in Vittel (France),¹⁴¹ Ontario (Canada)¹⁴² and Strawberry Creek (US).¹⁴³

4.3 SYNGENTA: A GIANT IN AGRIBUSINESS

Multiwatch

With headquarters in Switzerland, Syngenta is one of the largest agribusiness companies in the world. In 2020, it made 18 billion euros in sales,¹⁴⁴ of which approximately 85% were from pesticides and 15%, from seeds (of which 40% were for GMO crops).¹⁴⁵ In 2017, Syngenta was bought by the Chinese-owned chemical company ChemChina and three years later, the Syngenta Holding Group was founded.¹⁴⁶ The Group is comprised of Syngenta, Adama (majority stakeholder) and the agrochemical divisions of ChemChina and Sinochem (namely Sinofert and the Jiangsu Yangnong Chemical Group).¹⁴⁷ This new holding is just one more step in the increasing consolidation of the global market for pesticides and seeds, of which more than two-thirds are controlled by only four firms: Syngenta, Bayer (Monsanto), Corteva (DowDuPont) and BASF.¹⁴⁸

Syngenta comes in second on the list of TNCs selling highly dangerous pesticides in Mexico.¹⁴⁹ Of these companies, the top five are transnational corporations: Bayer, Syngenta, FMC Agroquímica de México, Dow Agrosciences and BASF (Bejarano 2017, 95). In the **state of Guanajuato**, inhabitants and the environment are constantly confronted with the pesticides produced by these TNCs. The vegetables grown in the region of the Independencia River basin are mainly for export and producers use an excessive amount of agrochemicals that pollute the soil, air and water.

Syngenta is also known in this region for its cultivation of **genetically-modified maize**. The TNC pays local farmers to cut the cobs of native maize varieties or to not even sow them. As a result, native maize is slowly disappearing in the region and farmers are becoming increasingly dependent on Syngenta's seeds (Bejarano 2017). Maize is one of the three main staple crops in the world. In Mexico, however, it also has cultural value. Peasant groups and social organizations are not only worried about the loss of food security, but also denounce the assault on maize varieties due to genetic contamination and asso-

140 See: <https://www.dawn.com/news/1442464>

141 See: <https://www.spiegel.de/international/europe/vexed-in-vittel-a-1252370.html>

142 See: <https://canadians.org/nestle>

143 See: <https://www.theguardian.com/environment/2019/oct/29/the-fight-over-water-how-nestle-dries-up-us-creeks-to-sell-water-in-plastic-bottles>

144 See: <https://www.syngentagroup.com/en/media/syngenta-news/year/2021/syngenta-group-reports-strong-full-year-2020-results>

145 See: <http://news.agropages.com/News/NewsDetail--36400.htm>

146 An important reflection on the impacts of megamergers in the agri-food sector can be found in: Mooney, P. *Too big to feed - exploring the impacts of mega-mergers, consolidation and concentration of power in the agri-food sector* [online]. IPES-Food, 2017. Available at: http://www.ipes-food.org/_img/upload/files/Concentration_FullReport.pdf

147 See: <https://www.reuters.com/article/us-chemchina-sinochem-syngenta/chemchina-sinochem-merge-agricultural-assets-syngenta-idUSKBN1Z40FZ> and <https://www.topagrar.com/acker/news/syngenta-group-wird-fuehrender-agrokonzern-11952717.html>

148 See: <https://www.nzz.ch/wirtschaft/die-holding-syngenta-group-soll-mitte-2022-an-die-boerse-ld.1543612>

149 Banned in several countries, paraquat is used in Mexico (see: <https://cdn.intechopen.com/pdfs/21981.pdf>, p. 101).

ciated to this, the loss of traditional knowledge, languages, practices and biodiversity.¹⁵⁰

According to the PPT ruling (PPT 2014, 9), NAFTA facilitated the rapid expansion of the cultivation of GMO maize in Mexico. Much of traditional agriculture has been replaced by export-oriented agriculture and as a result, the country has lost its food sovereignty and imports nearly ten million tonnes of maize per year. Furthermore, GMO maize not only threatens the diversity of maize varieties, but also requires farmers to use adequate fertilizers, pesticides and herbicides produced mainly by the same TNCs.¹⁵¹

Box 10. Social and environmental conflicts associated to Syngenta's operations in the Global South

According to a joint investigation by Unerthed and Public Eye, Syngenta and four other leading agrochemical corporations earned 4.2 billion euros in 2018 selling chemicals that are highly dangerous for people, animals and ecosystems.¹⁵² At the same time, they aggressively lobby for stricter intellectual property rights laws to protect their interests. We present a few of the numerous environmental and social conflicts related to this TNC below.

In general, highly hazardous pesticides are often sold and used in impoverished countries with weaker regulations. In **India**, research conducted by Pesticide Action Network (PAN Asia Pacific and PAN India) has found cases of pesticide poisoning, including ones involving products manufactured by Syngenta.¹⁵³ One very serious case occurred in 2017 in the Yavatmal region where at least 50 cotton farmers and fieldworkers died and more than a thousand became sick; most belonged to Adivasi indigenous communities.¹⁵⁴ They were poisoned while spraying a cocktail of pesticides in their fields. One of the chemicals used was Polo, a pesticide produced by Syngenta, which is highly hazardous according to PAN International (2019) and banned in the European Union and Switzerland.¹⁵⁵ Another one of the most toxic chemicals commercialized in the Global South is *Paraquat*, sold by Syngenta under the brand name *Gramoxone*, which generates nearly 200 million euros in sales for the TNC every year (Gaberell and Hoinkes 2019). It is usually used on palm oil, banana or rubber plantations and even on small farms. Though banned in several countries, Paraquat is still permitted in **India, Indonesia, and the Philippines**, for example, due in part to Syngenta's massive lobbying efforts.¹⁵⁶

Latin America is Syngenta's largest market, accounting for nearly one third of its sales. Here too, pesticides have caused environmental and social conflicts.¹⁵⁷ Syngenta's pesticides sales in Brazil totalled 1.35 billion euros in 2017; most of these products were classified as highly hazardous (Gaberell & Hoinkes 2019). This has major impacts on workers and people living near plantations. In 2013, 90 children and adults were

150 See: https://www.etcgroup.org/content/international-tribunal-de-mands-gm-maize-ban-mexico#_ftn2.

151 See: Holt-Giménez, E. *Campesino a Campesino. Voices from Latin America's Farmer to Farmer Movement for Sustainable Agriculture*. Oakland/California: Food First Books, 2006, p. 130.

152 See: <https://unerthed.greenpeace.org/2020/02/20/pesticides-croplife-hazardous-bayer-syngenta-health-bees/>

153 See: <https://panap.net/2019/10/how-child-rights-are-violated-by-pesticides-use-in-india/> and <http://www.pan-india.org/paraquat-in-india-too-big-a-risk-for-farmers-and-workers/>.

154 See the articles of J. Hardikar on this issue: <https://ruralindiaonline.org/articles/fumes-and-fear-in-yavatmal/>, <https://ruralindiaonline.org/articles/sit-report-pest-attack-unprecedented-ferocious/>, <https://ruralindiaonline.org/articles/lethal-pests-deadly-sprays/>. According to this journalist, even if government information campaigns have improved, the poisonings continue and the pesticide is still sold in India.

155 See information on the active ingredient Diafenthuron, in particular, in PAN International (2019).

156 See the PAN Asia Pacific report (<https://files.panap.net/resources/Of-Rights-and-Poisons-Accountability-of-the-Agrochemical-Industry.pdf>). After years of struggles by groups such as PAN, farmers and unions, the bans on highly hazardous pesticides are increasing in number; for example, Malaysia and Vietnam recently prohibited *Paraquat*.

157 With the free trade agreement between the Mercosur and the European Union, the power of agribusiness TNCs to sell their toxic products would only increase (see: <https://multiwatch.ch/fall/widerstand-in-der-schweiz-gegen-das-frei-handelsabkommen-efta-mercotur/>).

poisoned when an airplane accidentally sprayed a school with Syngenta's chemicals.¹⁵⁸ In 2018, a Brazilian court found Syngenta liable for the murder of a leader of the Landless Workers' Movement (MST), Valmir "Keno" Mota de Oliveira, in 2007.¹⁵⁹

In **Africa**, a growing number of increasingly strict regulations protect the interests of seed companies such as Syngenta. In East Africa, for example, a new seed bill – the East African Community Seed and Plant Varieties Bill of 2018 – is being drafted. It will be binding in Kenya, Uganda, Tanzania, Burundi, Rwanda and Sudan and draws heavily on UPOV 1991, a restrictive and inflexible international intellectual property legal regime promoted by industrialized countries.¹⁶⁰ Recently, Syngenta and the Syngenta Foundation for Sustainable Agriculture partnered with the Alliance for a Green Revolution in Africa to promote their "vision" of agriculture, which includes "high-quality seeds"¹⁶¹ that, in turn, need to be legally protected. Farmers' and environmental organizations across the region are fighting against these laws and demand that their rights be respected and their seed systems, strengthened.¹⁶²

158 In 2018, Syngenta was convicted for a small fine but the affected people still suffer from the consequences (see: <https://www.publiceye.ch/de/themen/pes-tizide/aus-heiterem-himmel>).

159 A member of MST commented that this judgment is "a victory for our class. It lifts our spirit to keep fighting (see: <https://terradedireitos.org.br/en/news/news/syngenta-found-guilty-of-murder-of-mst-leader-in-southern-brazil/22980>).

160 These laws strongly undermine farmers' rights and criminalize farmers' seed systems while strengthening the protections of the intellectual property rights of industrial seed breeders like Syngenta (see: <https://www.acbio.org.za/sites/default/files/documents/Concerns%20with%20the%20draft%20EAC%20Seed%20and%20Plant%20Varieties%20Bill%2C%20September%202018%20version%20FULL%20REPORT.pdf>, and <https://www.grain.org/es/entries/5633>).

161 See: <https://www.syngentafoundation.org/news/recent-news/agra-syngenta-partner-africa>

162 See: <https://www.acbio.org.za/en/press-release-east-african-farmer-civil-society-organisations-criticise-eac-seed-bill-demand>



Meeting with the organizations of affected peoples in the Mezquital Valley, December 2019.

Photo: Martín Álvarez Mullally, OPSur

4.4 LAFARGEHOLCIM

Olivier Petitjean (Observatoire des Multinationales) and Mónica Vargas (TNI)¹⁶³

LafargeHolcim was created in 2015 as the result of a merger between Swiss-based Holcim and France-based Lafarge, the two global leaders of the cement sector at that time. The goal of the merger was clearly to limit competition. Originally, it had two headquarters – one in France and the other in Switzerland – but when the French side became engulfed in the scandal related to its actions during the civil war in Syria (see below), LafargeHolcim moved its headquarters to Switzerland and its leadership is now mostly Swiss. The main shareholders are Swiss billionaire Thomas Schmidheiny and Groupe Bruxelles Lambert (owned by two billionaire families: the Frère family from Belgium and the Desmarais from Canada). Another billionaire, Nassef Sawiris from Egypt, owned a large share in the TNC until early 2019, though his share has been declining. Most of these people or their representatives sit on the board of directors. Funds such as BlackRock and Harris own around 3% of LafargeHolcim's capital. In 2019, the TNC declared that it had 72,452 employees, a turnover of 25.2 billion euros, 2.1 billion euros in profit and about 148 Mt CO₂ in GHG emissions.¹⁶⁴

163 In this subchapter, Mónica Vargas is the author of the part dedicated to the impacts of LafargeHolcim (Geocycle) in Mexico.

164 See: LafargeHolcim Website (<https://www.holcim.com/>), and 2019 integrated annual report. https://www.lafargeholcim.com/sites/lafargeholcim.com/files/atoms/files/02272020-finance-lafargeholcim_fy_2019_report_backend-en_457273729.pdf

Mexico is LafargeHolcim's 8th most important country in terms of sales (2019), although in its most recent annual report, the TNC complained that the abandonment of large-scale infrastructure projects has hurt its sales (which confirms that as a cement and concrete company, it has a direct interest in the development of such projects).¹⁶⁵ Both Holcim and (more recently) Lafarge were present in Mexico before the merger. Holcim arrived in the 1960s and Lafarge, in 1999 (through operations in the cement sector), both by purchasing local cement companies. **LafargeHolcim now owns and manages seven cement plants in the country, with a grinding capacity of 12.2 million tons of cement per year – the group's largest in Latin America.** It also operates technical and distribution centres throughout the country.¹⁶⁶ They are based (by order of age) in Apaxco (state of Mexico), Orizaba (Veracruz), Macuspana (Tabasco), Acapulco (Guerrero), Ramos Arizpe (Coahuila), Tecomán (Colima) and Hermosillo (Sonora). Together with Elementia, Lafarge used to be the co-owner of two other cement plants in Vito and Tula, close to the Apaxco plant, but sold its stake to Elementia prior to its merger with Holcim.

In 2003, Geocycle (formerly Ecoltec), a company belonging to LafargeHolcim, began its operations at the Apaxco plant in the Hidalgo industrial corridor discussed in section 3.3 above.¹⁶⁷ Its main activity consists of co-processing waste – that is, using the heat capacity of the waste as fuel. This is why the company collects and manages industrial waste, plastics, used oil, tires, sawdust and sludge with high levels of hydrocarbons, which it crushes and burns in cement kilns. This method enables the TNCs to reduce the amount of fossil fuels used to manufacture cement (ATI 2011, 25). **Since the installation of the plant, the neighbouring towns of Apaxco and Atotonilco de Tula reported nauseating odours that caused acute intoxication (irritation of the throat and eyes and headaches).** In 2004 and 2007, events related to acrylate, a by-product of the chemical and paint industry that is considered neurotoxic, occurred. The TNC promised to take steps to put an end to this situation, but made no changes. On March 21, 2009, **eleven peasants who were cleaning a well lost consciousness by inhaling toxic substances and drowned.** Well contamination is associated with discharges from the plant into the Salado River. In May of the same year, there was another acrylate leak which affected around 30,000 inhabitants of 11 towns located within a radius of four square kilometres (ATI 2011, 23-27, CEDAAT 2010, 1-4).¹⁶⁸

In 2010, the Centre for Diagnosis and Alternatives for People Affected by Toxics (CEDAAT) carried out a study to assess the cause-effect relationship between acute intoxication and the spread of toxins by Ecoltec to evaluate neurotoxicity in schoolchildren in the region and mortality in the municipalities of Apaxco and Atotonilco. **CEDAAT reported that 86% of the 305 patients surveyed had suffered from acute poisoning from the acrylate leak of May 2009.** Furthermore, when the Neuropsi, attention and memory neuropsychological test was applied

165 See: https://www.lafargeholcim.com/sites/lafargeholcim.com/files/atoms/files/02272020-finance-lafargeholcim_fy_2019_report_back-end-en_457273729.pdf

166 See: <https://www.holcim.com.mx/donde-estamos>

167 See: <https://www.geocycle.com/mexico?address=Mexico>

168 CEDAAT conducted interviews at the LafargeHolcim plants in the states of Veracruz and Tabasco and registered the complaints from the local population. Regarding the materials treated by the LafargeHolcim waste plants, workers informed CEDAAT that hazardous products had arrived from the ports of Coatzacoalcos and Veracruz, which they presumed were from the US (CEDAAT 2011).

to 35 school-age children, 69% of them showed signs of severe memory impairment and 46% showed alterations of higher mental functions. CEDAAT concluded that the children had been seriously affected and that the poor school performance of children in the region was linked to the toxins released into the environment which affected their nervous systems (CEDAAT 2011).

The local population mobilized and organized several protests, including a sit-in in front of the plant, which they managed to keep closed between 2009 and 2012. They also succeeded in forcing the TNC to reduce the volume of incinerated waste and to stop dumping toxic substances into surface water bodies. Furthermore, they established alliances with national and international civil society organizations, especially other movements fighting against the impacts of the cement industry (Carrasco, Peralta & Vargas 2017, 331). In addition, they also took legal action and submitted requests to municipal, state and federal agencies. The Commission on the Environment, Natural Resources and Fisheries of the Mexican Senate reacted in 2011, recommending that the Government of Hidalgo launch a criminal investigation into the death of the 11 people and urging Propefa to inspect the Ecoltec plant. It also recommended that the Ministry of Health conduct toxicological and epidemiological studies on acute and chronic diseases present in the population of Apaxco to determine if they are related or are a direct or indirect consequence of Ecoltec's operations.¹⁶⁹ The grassroots mobilizing continued and draft bills aimed at limiting the thermovaluation of non-organic waste at the national level and proposing a "Zero Waste" law were submitted.¹⁷⁰

The affected communities presented LafargeHolcim's impacts in Mexico twice during the Permanent Peoples Tribunal (PPT) Sessions. The PPT also heard cases related to the TNC in Colombia and Guatemala and concluded that "the socioeconomic and cultural effects on the inhabitants of the three regions named in the accusations include direct and indirect loss of life and the contamination or complete disappearance of water catchments" (PPT 2010, 38).¹⁷¹

169 See: http://sil.gobernacion.gob.mx/Archivos/Documentos/2011/09/asun_2793662_20110914_1316023340.pdf

170 For more information on this case, see Carrasco, Peralta and Vargas (2017).

171 See: http://centroprodh.org.mx/sj-didh_2_0_alfa/?p=37157 and PPT (2014).

Box 11. Environmental and social conflicts associated to LafargeHolcim at the global level and public support

LafargeHolcim is present on every continent and leads one of the world's most polluting and destructive industries. Its activities over the years, including those of Lafarge and Holcim before the merger in 2015, have generated social and environmental conflicts not only in the Global South, but also in the Global North. These conflicts range from communities fighting pollution and coal operations in Canada and the US to local communities successfully shutting down a highly polluting waste-burning plant in Slovenia. Organic farmer Uroš Macerl was awarded the Goldman Prize for his role in the struggle in Slovenia in 2017.¹⁷²

In **Syria**, the fact that Lafarge kept the cement plant running between 2011 and 2014 (when the area was conquered by Daesh) caused a scandal. **Lafarge deliberately continued operating the plant for financial and political reasons in spite of the civil war, and to be able to keep its operations running, it made payments to various parties involved in the conflict, including Daesh.** Besides collaborating with a fascistic terrorist group, it also violated workers' rights, as the plant's managers failed to guarantee their safety and even abandoned them. Former workers, together with European groups, have launched a lawsuit against Lafarge, which is still pending. This lawsuit is important in legal terms, as it seeks to hold the parent company liable for the operations of its local subsidiary and because the company has been indicted in the case as a moral person. In **Sri Lanka**, Holcim was involved in a scandal involving blatant human rights violations. It was accused of collaborating with and sponsoring the army and participating in activities in "rehabilitation camps" for former fighters of the Tamil Tigers movement.¹⁷³

Lafarge and Holcim have also been involved in several labour conflicts over the years in the Middle East.¹⁷⁴ The TNC has also been accused of allowing or even **facilitating the exploitation of child labour** in a quarry supplying one of its plants in **Uganda**. When the problem was exposed by Western media,¹⁷⁵ LafargeHolcim simply chose to stop sourcing materials from the quarries, leaving many adult workers unemployed and refusing to take responsibility for the injuries child and adult workers had suffered while supplying its operations.¹⁷⁶

Pollution and environmental destruction caused by LafargeHolcim's activities, including the displacement of communities and the destruction of their livelihoods, have given rise to numerous social-environmental **conflicts in Asia, Africa and South America**. In **Ecuador**, locals have protested against the pollution of water sources by Lafarge's operations at the Selva Alegre mine.¹⁷⁷ Similarly, local communities have opposed a new cement plant planned by Lafarge in the state of Himachal Pradesh in India,¹⁷⁸ and another one in East Java in **Indonesia**.¹⁷⁹ Authorities and civil society groups have taken a stand against the pollution caused by LafargeHolcim's activities in **Egypt** and **Lebanon**.¹⁸⁰ In **Ma-**

172 See: <https://www.goldmanprize.org/recipient/uros-macerl/>

173 See: <https://www.business-humanrights.org/en/sri-lanka-holcim-accused-of-sponsoring-military-propaganda-rehabilitation-camps-linked-to-torture>

174 In the 2000s, there were several violent conflicts in Lafarge cement plants in Iraq, including an incident where security guards fired against demonstrating workers in Kurdistan, wounding 13 (see: <https://www.equaltimes.org/behind-the-world-banks-projects-in-iraq#.Xs6aTy-3pO8o>). In 2013, in Algeria, Lafarge fired several workers and filed a lawsuit against them because they led mobilizations against job cuts in its plant (see: <https://multinationales.org/Des-ouvriers-algeriens-de-Lafarge>).

175 See: http://www.lemonde.fr/planete/article/2016/03/22/en-ougan-da-lafargeholcim-accuse-de-faire-son-ciment-du-minerai-creuse-par-des-enfants_4887414_3244.html

176 See: <https://multinationales.org/Travail-des-enfants-en-Ouganda-Lafarge-s-en-lave-les-mains>

177 See: <https://ejatlas.org/conflict/contaminacion-por-empresa-de-cementos-en-selva-alegre-ecuador>

178 See: <https://ejatlas.org/conflict/lafarge-cement>

179 See: <https://www.business-humanrights.org/en/indonesia-ngos-file-complaint-against-holcim-to-swiss-national-contact-point-allege-land-rights-abuses-company-responds>

180 See: <https://www.business-humanrights.org/en/holcim-lebanon-checkka-cement-plant-linked-to-health-and-environmental-risks>

laysia, the opening of a new quarry by Lafarge in a remote area caused the massive destruction of biodiversity, including the potential loss of species not yet known. A new endogenous snail species was even named after Lafarge, the company that would eventually cause it to become extinct.¹⁸¹ Another important case is the one at the **border between India and Bangladesh**: limestone is mined in India and processed in a neighbouring plant in Bangladesh. These operations have attracted a lot of attention because of the social and legal resistance of local indigenous communities opposing the dispossession of their land and livelihoods. LafargeHolcim has been accused of acquiring the land illegally (posing as a local company with the complicity of a local leader). The operations have had a significant impact on the local environment, polluting the soil and water and causing the loss of wildlife.¹⁸²

Both Lafarge and Holcim, as cement providers, have had historically close ties to governments which are among their best clients – for example for large scale infrastructure projects (such as dams). The scandal involving Lafarge’s cement plant in Syria during the civil war has exposed the TNC’s strong connections to the French government, as the decision to keep the plant running was made in coordination with French diplomats and secret services during weekly meetings. The rationale for this was to maintain a French foothold in Syria to be able to restart its operations and guarantee its influence as soon as the war was over. France apparently specifically asked US forces not to drop bombs on the plant. Another recent controversial project was the Lafarge executives’ public show of support at the beginning of Donald Trump’s presidency for his plans to build the wall at the US-Mexico border. This stance was toned down following public outrage.

It is also important to note that public investment and development banks, including the World Bank, have financed several LafargeHolcim projects, for instance in Iraq, India and Bangladesh.

Another significant form of support worth mentioning here is the EU carbon market, as the cement sector is one of the most polluting industrial sectors and a key driver of GHG emissions. Through the EU carbon market, LafargeHolcim has received millions of free carbon allowances – a mechanism put into place to prevent the offshoring of industrial activities – which it can either turn into cash or use them to “compensate” for the GHG emissions caused by its operations elsewhere in the world.

181 See: <http://news.mongabay.com/2014/0824-dimitrova-lafarge-snail.html>

182 In this heavily militarized region, protesting has been difficult, especially because the Indian government sees the Lafarge project as being of strategic importance since it was consolidating its economic ties with Bangladesh. The main avenue for the local communities has been legal action, as Indian law theoretically protects indigenous land. However, the Supreme Court finally allowed the project to proceed in 2011 (see: <https://multinationales.org/Dans-le-Nord-Est-de-l-Inde-Lafarge>).



Reception of the #ToxiTourMexico Caravan by the organizations of affected peoples in Puebla, December 2019.

Photo: Martín Álvarez Mullally, OPSur

4.5 VOLKSWAGEN

Thomas Dürmeier (Goliathwatch)

Volkswagen Group is the biggest corporation in Germany and the leading car producer globally.¹⁸³ It was founded by the fascist Nazi regime in 1937 in cooperation with Ferdinand Porsche, who developed a cheap car for Germans named “Volkswagen” (car for the people). Porsche Automobil Holding SE (52.2%) is the majority stockholder and is owned by the Porsche and Piëch families from Austria. The state of Lower Saxony holds 20% of the TNCs’ shares, thus retaining its veto power thanks to legal restrictions on shareholders’ voting rights imposed after World War II because the Allies wanted to limit Volkswagen’s corporate power. Porsche and other actors have tried to dismantle the extraordinary “VW Law” but European courts and antitrust agencies have upheld the law so far.¹⁸⁴

Since 2015, Herbert Diess has been the CEO of Volkswagen and its headquarters are located in Wolfsburg.¹⁸⁵ In 2019, the corporation had a turnover of 252.6 billion euros, 14 billion euro in earnings after tax and a global auto market share of 12.9%. The Group’s employs 662,575 workers at 118 production sites in 30 countries spread across Europe, the Americas, Asia and Africa. Volkswagen owns twelve brands from seven European countries: Volkswagen Passenger Cars, Audi, SEAT,

183 See: <https://www.volkswagenag.com/>

184 The full title of the law is “Gesetz über die Überführung der Anteilsrechte an der Volkswagenwerk Gesellschaft mit beschränkter Haftung in private Hand”, usually abbreviated to “VW-Gesetz” (VW Law). See: https://www.gesetze-im-internet.de/wgmbh_g/index.html

185 The town was built from scratch around the car factory.

ŠKODA, Bentley, Bugatti, Lamborghini, Porsche, Ducati, Volkswagen Commercial Vehicles, Scania and MAN. According to the corporation, each brand has its own character and operates as an independent entity on the market.¹⁸⁶

Its four factories in Mexico are located in Silao (state of Guanajuato), Puebla and San José Chiapa (state of Puebla) and Querétaro; the first two alone employ nearly 13,000 workers.¹⁸⁷ After Wolfsburg in Germany, the car factory in Puebla is the corporation's second largest production site: it built 443,435 cars in 2019.¹⁸⁸

Volkswagen Mexico has numerous social outreach programmes and publicity events. According to the corporation, it invested more than 240,000 euros in restoration and water harvesting projects in Sierra de Lobos.¹⁸⁹ Several other of its initiatives are well publicized and Volkswagen supports 49 social projects in Mexico.¹⁹⁰ This contrasts with the strong criticism the corporation has faced for years due to its involvement in social and environmental conflicts related to water. For instance, **the TNC has been denounced for using too much groundwater in San Francisco Ocotlán and San José Chiapa¹⁹¹ and hail cannons,** as explained in section 3.5 on the Libres Oriental basin. This controversial weather-altering technology is supposed to protect new cars at the factory from hail damage but causes drought by preventing rainfall. A group of local farmers reported that 2,000 hectares of crops were affected and filed a lawsuit claiming more than 3 million euros in damages from the carmaker for the use of the cannons. Volkswagen promised to reduce the use of this technology but according to the affected communities, it has not kept its promise.¹⁹²

The TNC has also been **denounced for its role in labour conflicts.** For instance, in 2020, the measures that Volkswagen applied in Mexico to deal with the COVID-19 crisis were different from the ones it adopted in the US. Workers in Puebla and Guanajuato had to work nine days more than employees in Chattanooga, Tennessee. Bloomberg, a major news outlet, reported that a 'VW Mexican worker dies after later shutdown than US'.¹⁹³ It is worth mentioning that the questions that Goliath-watch sent to Volkswagen on the case of Mexico regarding compliance with human rights and environmental pollution in July 2020 have yet to be answered.

186 See: <https://www.volkswagenag.com/en/group/portrait-and-production-plants.html>

187 See: <https://www.volkswagenag.com/en/group/portrait-and-production-plants.html>

188 See: <https://www.volkswagen-newsroom.com/en/volkswagen-de-mexico-puebla-und-silao-5903>

189 See: <https://mexico-now.com/volkswagen-has-been-recognized-for-its-environmental-efficiency/>

190 See: <https://www.volkswagenag.com/en/sustainability/reporting/cc-projects/north-america.html>

191 See: <https://www.lajornadadeoriente.com.mx/puebla/barreda-301/>

192 See: <https://money.cnn.com/2018/08/23/news/companies/vw-volkswagen-mexico-drought/index.html>

193 See: <https://eu.detroitnews.com/story/business/autos/foreign/2020/04/13/vw-mexico-worker-dies-later-shutdown-us/111543520/>

Box 12. Public support from European governments and the Dieselgate scandal

The German government helps Volkswagen in many ways. The government prevents stronger regulations from being adopted and weakens the application of European rules in Germany, as seen in the Dieselgate scandal. Environmental groups such as Deutsche Umwelthilfe¹⁹⁴ have filed complaints on the hazardous fumes from Volkswagen cars, which is why the conservative party currently in office is cracking down on this civil society group. The government gives Volkswagen the same financial support as other German companies in the form of export subsidies or assistance.

In September 2015, it was revealed that Volkswagen had developed and introduced specific software in its diesel automobiles to mislead customers and regulators about the vehicles' actual emissions in real-life driving conditions. The so-called **"Dieselgate" scandal** spread around the world, suggesting that several other car manufacturers were engaged in similar practices. Official investigations were launched in many countries but their outcomes varied, illustrating the important legal differences between countries, particularly the US and Europe. In the US, the Environment Protection Agency began prosecuting Volkswagen and some of its executives immediately. In view of the evidence, the car manufacturer had no other choice but to plead guilty. It was forced to pay nearly 4 billion euros to date and repair over 80% of the cars it had sold or take them back. Two of its managers were put in prison. In August 2017, the German government organized a "national diesel summit" with car manufacturers – and without civil society – to publicize a few minor concessions made to the industry and help them improve their image. The German government has always been very supportive of export-oriented industrial sectors such as the car industry, and its support for trade agreements (such as the TTIP, among others) is closely connected to the country's export-oriented economic strategy.

Countless studies have revealed the human costs of diesel pollution in Europe and throughout the world, namely its impacts on health and premature deaths, which are estimated at 4,750 per year in Europe (Tanaka et al. 2018). In Germany, between 2008 and 2015, there were 1,200 premature deaths – the equivalent of around 13,000 years of life (Chossière et al. 2017). The monetary costs of diesel-related health issues in Europe and the US have been estimated at around 35 billion euros. It is true that some car owners received compensation or had their vehicles replaced. But there is still no avenue offering other victims a way to hold Volkswagen and other car manufacturers accountable for their actions. The absence of any compensation for victims of environmental pollution is a major issue.¹⁹⁵

Volkswagen has been associated with several human rights violations and environmental conflicts.¹⁹⁶ Strong relations with the metalworkers' union and the German regional government give Volkswagen powerful allies to resist regulation and ensure ongoing government support. The Volkswagen case raises questions on how to deal with the abuse of power by TNCs that are owned, in part, by the government and have strong ties with labour unions.

194 See: <https://www.duh.de/home/>

195 For more information, see: https://goliathwatch.de/wp-content/uploads/2018/10/ENCO-20181013-eu_corporate_impunity_nexus.pdf

196 See for instance: Selenz, H. *Schwarzbuch VW: Wie Manager, Politiker und Gewerkschafter den Konzern ausplündern*. Frankfurt: Eichborn, 2005.

4.6 BASF

Thomas Dürmeier (Goliathwatch)

The German transnational corporation BASF is one of the biggest chemical and agricultural corporations on the planet.¹⁹⁷ It acquired a large market and product share from Bayer during the Bayer-Monsanto merger, as the European competition agency allowed BASF to buy the assets that Bayer had to sell off. BASF is registered as a “Societas Europaea”, the new European legal structure, and is located in Ludwigshafen in southern Germany. The corporation was founded in 1865 as “Badischen Anilin- & Soda-Fabrik”, an aniline and soda factory in Baden. **It operated during both world wars and produced chemicals for ammunition or poisonous gas.** Together with Bayer, it was a member of IG Farben and produced Zyklon B, the poisonous gas used in concentration camps to kill people.¹⁹⁸

BASF has no majority shareholder; investment giant Blackrock is the biggest individual shareholder, owning 5% of BASF's shares. Since 2018, CEO Martin Brüdermüller steers the corporation. In 2019, BASF made 59.3 billion euros in sales and 8.4 million euros in profits after tax.¹⁹⁹ Its operations are mainly in the chemical products, oil and gas sectors. It has 110,000 employees²⁰⁰ working in over 360 production sites in 90 countries.

BASF has five factories in Mexico: in Puebla, Altamira (Tamaulipas), Barrientos, Lerma and Tultitlán (state of Mexico).²⁰¹ It also produces paints and coatings for Volkswagen's cars. As stated in section 3.4 above, the TNC is active in the industrial corridors of the Atoyac-Zahuapan basin. It is worth mentioning that questions addressed to BASF in July 2020 by Goliathwatch on the case of Mexico regarding compliance with human rights and environmental pollution have not yet been answered.

Box 13. Public support from European governments and social and environmental conflicts associated to BASF

The German government supports the chemical industry in research and development because there is strong cooperation between public universities and those sectors.²⁰² Information on future government funding for trade subsidies, export credit insurance or regional chambers of commerce such as CAMEXA (the Mexican-German Chamber of Commerce)²⁰³ was not available to the public.

Since 2004, BASF has used several lobbying strategies to stop stricter regulations of the chemical industry from being adopted at the EU level, such as high-level lobbying organizations like the “Transatlantic Business Dialogue” or the even more powerful “European Round Table for Industry” (ERT). According to research by LobbyControl, BASF had also managed to get its own employees into positions in key German ministries to

197 See: <https://www.basf.com/>

198 See: <https://www.basf.com/global/de/who-we-are/history/chronology/1925-1944/1939-1945/kampfstoffe-und-zyklon-b.html>

199 See: https://report.basf.com/2019/en/servicepages/keyfigurescomparison.html#/datasheet_ar/vertbar/5/3,4,5,6,7,8,9,15,16,17,18,19,23,24,25,26,27/periods/0, and <https://report.basf.com/2019/en/managements-report/basf-group-business-year/results-of-operations/sales.html>

200 See: <https://www.basf.com/global/de/who-we-are.html>

201 See: <https://www.basf.com/mx/es/who-we-are/Nuestra-Presencia-en-Mexico-Centroamerica-y-el-Caribe/Historia.html>

202 See: <https://www.basf.com/global/en/who-we-are/innovation/how-we-innovate/academic-collaborations.html>

203 See: <https://mexiko.ahk.de/es>

stop the adoption or minimize the scope of the EU regulation “REACH”, which is meant to safeguard people and the planet from chemical substances.²⁰⁴

Even though BASF is one of the top 100 companies in the United Nations Global Compact,²⁰⁵ its Mexican subsidiary withdrew its membership in 2011.²⁰⁶ The Global Compact represents a weak commitment to respect human rights violations, with little or no effects, for BASF. Although BASF reports on environmental and human rights issues,²⁰⁷ there is still a lack of transparency regarding the social and environmental conflicts involving the corporation in the Global South.

One of the most dramatic cases is **Marikana**, in South Africa, **where 34 workers on strike were killed by the police in August 2012**. The Marikana platinum mine supplied BASF with resources valued at 600 million euros.²⁰⁸ BASF reacted to this human rights case by making improvements to its due diligence activities,²⁰⁹ but according to the “Plough Back the Fruits” campaign run by Southern African and European civil society organizations, the affected families and community are still waiting for justice.²¹⁰ The campaign invited South African Bishop Jo Seoka to intervene several times at BASF’s annual shareholder meetings. In 2019 and 2020, the Bishop concluded that despite the dialogue with BASF, for the widows, the injured, the workers in the mines and for the affected communities, almost nothing had changed since the Marikana massacre.²¹¹ **According to civil society groups, BASF does not assume any real responsibility.**²¹² Marikana are one of six cases of the German campaign for mandatory human rights duties and due diligence, which could lead to the first legal responsibilities for human and environmental laws worldwide with effective complaint procedures.²¹³

4.7 BAYER

Lucía Benavides, Peter Clausing, Giovanna C. Segura López and Sabrina Spitznagel (México vía Berlin)²¹⁴

Bayer is a transnational corporation based in Germany, whose main branches are *Bayer Healthcare* (pharmaceuticals) and *Bayer Cropscience* (pesticides and seeds, including genetically-modified organisms). According to its business report, in 2019, it employed more than 103,000 people worldwide and earned 43.5 billion euros in revenues and 1.6 billion euros in profit after taxes.²¹⁵ Present in Mexico since the 1920s, Bayer currently has nine facilities and its central offices are in Mexico City.²¹⁶ **The sites with the greatest risk for environmental pollution are Lerma (state of Mexico, where the TNC manufactures pharmaceuticals), Ixtacuixtla (Tlaxcala, where “agricultural solutions” are produced) and Orizaba (Veracruz, where it produces**

204 Véase: <https://lobbypedia.de/wiki/BASF>. LobbyControl also reported that in 2016, BASF supported Trump’s election campaign with more than 300,000 euros.

205 See: <https://www.unglobalcompact.org/what-is-gc/participants/1194>

206 See: <https://www.unglobalcompact.org/what-is-gc/participants/1196-BASF-Mexicana-S-A-de-C-V->

207 See: <https://report.basf.com/2019/en/>

208 See: <https://webshop.inkota.de/file/1961/download?token=GoDHqiee>, and <https://www.rosalux.de/publikation/id/38733/zum-beispiel-basf?cHash=c5fd-859349dae986e6530323480a2942>

209 See: <https://www.basf.com/global/en/who-we-are/sustainability/we-source-responsibly/marikana.html>

210 See: <http://basflonmin.com/home/de/>

211 See: http://basflonmin.com/home/wp-content/uploads/2019/04/Rede_Seoka_AGM_BASF2019_final.pdf, and https://www.brot-fuer-die-welt.de/fileadmin/mediapool/90_Videos/weitere-filme/BfdW_BASF-Marikana-Massaker_Bischof-Seoka.webm

212 See: <https://www.presseportal.de/pm/82457/4626248>

213 See: <http://www.lieferkettengesetz.de>

214 For a more detailed version of this section, see: Benavides, Clausing et al. (2021).

215 See: <https://www.bayer.de/de/geschaeftsbericht-2019-der-bayer-ag.pdfx>

216 See: <https://www.bayer.mx/es/bayer-en-mexico/sedes/>

steroidal hormones). Information on the socio-environmental problems associated with Bayer in Mexico is scarce. This section presents some of the best documented cases.

The former Bayer subsidiary **Cromatos de México** was located in Lechería (Tultitlán, state of Mexico). It started operating in 1958. It created serious environmental problems in the area, which have yet to be resolved, due to the production of hexavalent chromium, a carcinogenic substance,²¹⁷ and the on-site accumulation of large amounts of toxic waste. The factory exposed its workers and the local population to toxins for years. **In 1975, people living in the surrounding area mobilized after several children had died and managed to have the plant shut down in 1978** (Díaz 2009). When it closed, it left behind between 75,000 and 120,000 tons of toxic hexavalent chromium residues.²¹⁸ According to the sources reviewed, there is no record of the payment of any compensation for health damages to the affected peoples.²¹⁹

Since the 1980s, several institutions have been involved in documenting the pollution and drafting a remediation plan, partially with technical and financial support from the German Technical Cooperation Agency (GTZ) (Díaz 2009).²²⁰ In 2003, high chromium concentrations were found in the soil, air and drinking water.²²¹ Between 2006 and 2012, Semarnat confined the chromium in situ, restored the soil and set up nine wells to monitor the aquifer, announcing that a public park would be opened on the site.²²² But in 2017, the site remained closed to the public and was surrounded by a fence with warning signs (Vázquez 2019). In Europe, the use of hexavalent chromium has been restricted since 2000.²²³ Therefore, according to Díaz (2009), Cromatos de México can be considered a case where companies “export the risk” from rich to poor countries.

Bayer’s facility in the state of Tlaxcala produces “biological agricultural solutions” and is one of the more than 20,000 corporations in the industrial corridor in the Atoyac-Zahuapan River basin. **The corridor is co-responsible for the severe social and environmental impacts mentioned above.**²²⁴ According to the Centro Fray Julián, Bayer discharges wastewater into the municipal sewage system of Ixtacuixtla, thus transferring the responsibility for its waste to local authorities.²²⁵ As stated in section 3.4 above, CNDH Recommendation 10/2017 confirmed the negligence of the local government in the control and treatment of industrial discharges in the region (Franco 2019).²²⁶ Local authorities do not have the resources and technology necessary to treat toxins present in the river, some of which have been prohibited in the EU (PAN Germany 2019).

Another aspect is the **sale of pesticides in Mexico which have been banned in the EU due to the environmental and health risks they pose**. For instance, on its Mexican website,²²⁷ Bayer offers *Envidor*, its product that contains spirodiclofen, which has been classified in the EU as ‘probably carcinogenic for humans’.²²⁸

217 See: <https://www.niehs.nih.gov/health/topics/agents/hex-chromium/index.cfm>

218 See: <http://www.cbgnetwork.org/1856.html> and <https://www.business-humanrights.org/es/tultitlan-mexico-75000-tons-de-desechos-txicos-dejados-por-extinta-empresa-de-bayer>

219 See: <http://www.cbgnetwork.org/1856.html>

220 See also: <https://www.excelsior.com.mx/2012/07/09/nacional/846535#view-1>.

221 See: <http://www.cbgnetwork.org/1856.html>

222 See: <http://www.cbgnetwork.org/1856.html>

223 See the Directive 2000/53/EC of the European Parliament and the Council of 18 September 2000 (<https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32000L0053>).

224 For more information, see Franco (2019), http://tragua.com/wp-content/uploads/2019/03/Veredicto_Atoyac_fi_nalconfirmas.docx.pdf, <https://www.lajornadadeoriente.com.mx/tlaxcala/28-mil-muertes-sin-justicia/>, y http://www.cndh.org.mx/sites/default/files/doc/Recomendaciones/2017/Rec_2017_010.pdf.

225 See: <https://www.dw.com/es/mexico-r%C3%ADos-muertos-con-tal-de-atraer-inversi%C3%B3n/a-55649183>

226 See also: <http://tlaxcala.quadratin.com.mx/principal/dos-mil-empresas-contaminan-al-atoyac/>

227 See: <https://www.bayer.com/es/mx/productos/mexico-agricultura> [Accessed on 15/12/2020]

228 See: https://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/active-substances/?event=as.details&as_id=1168

In 2016, a large alliance of civil society organizations published a report on human rights problems related to corporations in Mexico.²²⁹ One of the cases discussed in this report is Villa Guerrero (state of Mexico), home to one of the biggest flower production sites, which involves 1,500 families. **Bayer is one of the corporations providing the pesticides used there. Significant health and environmental damages were reported linked to the failure to provide necessary precautionary measures.** According to the report, Personal Protective Equipment (PPE) for workers is virtually non-existent and toxic pesticide waste and pesticide containers are dumped into the environment. In its International Code of Conduct on Pesticide Management, the Food and Agricultural Organization (FAO) recommends that corporations promote the use of suitable PPE.²³⁰ Furthermore, services should be put into place to collect and safely dispose of used containers and leftover pesticides.

Box 14. Social-environmental conflicts linked to Bayer's products in the Global South

One major problem regarding Bayer is that it continues to commercialize pesticides in countries in the Global South that have been banned in the EU for environmental or health reasons. This “double standard” is increasingly questioned in those regions. The following two cases illustrate this situation.

Examples in Brazil: According to research conducted by Luig et. al. (2020, 14-15), in Brazil, Bayer sells 12 active ingredients for pesticides that are not permitted in the EU. Six of them have been classified by the Pesticide Action Network as highly hazardous pesticides (HHPs). The report highlights how the agrochemical industry's lobbying has influenced national laws and facilitated the registration of pesticides considered carcinogenic or having other serious long-term health effects.²³¹ These products can also contaminate groundwater, as shown by a study conducted by the Brazilian Water Authority (SISAGUA) between 2014 and 2017. **The study found traces of 27 substances in the groundwater in Caarapó, eleven of which have been associated with cancer, miscarriages and endocrine problems.** One of them is carbendazim, an active ingredient of Bayer's *Derosal Plus*, a fungicide that is 'probably mutagenic to humans', toxic to aquatic organisms, classified as HHP and **not approved for use in the EU** (Luig et. al. 2020, 17).²³²

An airplane sprayed Bayer's product *Nativo*, which contains the toxic active ingredient tebuconazole, less than 30 meters away from the Tey'i Jusu community in Brazil. The inhabitants suffered from headaches, fever and diarrhoea, among other health problems. Tebuconazole has toxic effects on the reproductive system, among others (Chen et. al. 2019). A Brazilian court ruled that those responsible for this act had to pay compensation to the local population (Luig et.al. 2020, 17).

Impacts in India: In 2016, PAN Germany, the European Centre for Constitutional and Human Rights (ECCHR), the Kheti Virasad Mission

229 See: https://aida-americas.org/sites/default/files/informe_mx_empresas_ddhh_68.pdf

230 See: http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/Code_Spanish_2015_Final.pdf (p. 15).

231 See: PAN Germany (2019).

232 See: https://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/active-substances/?event=as.details&as_id=506. On 28 April 2020, during the company's shareholder meeting, Bayer CEO Werner Baumann announced that it would phase out carbendazim globally by the end of the year (see: <https://www.welt-er-naehrung.de/wp-content/uploads/2020/06/Carbendazim-HV-200428.pdf>).

and FIAN submitted a complaint to the Chamber of Agriculture of North Rhine-Westphalia. The case referred to Bayer's production of the pesticide *Nativo 75 WG* in Germany, which it exported to India in 2015 and 2016 without providing sufficient information about its health risks. When exported, the containers were duly labelled with risk warning signs. Once in India, however, the product was repackaged into smaller bags, without the labels warning of the risks for the reproductive system, thus violating India's Plant Protection Products Act.²³³

4.8 IBERDROLA

Martin Mantxo, Iñaki Barcena (TRADENER)

Iberdrola is a Basque energy company based in Bilbao. Together with Endesa, Naturgy (formerly called Gas Natural Fenosa), Viesgo and EDP, it forms an energy sector oligopoly that controls 90% of the Spanish electricity market. Globally, it is one of the largest electricity companies by market capitalization, and a leader in the wind power sector. It reports a payroll of 37,000 employees and assets worth more than 122 billion euros.²³⁴ Its profits are increasing every year, reaching 3.466 billion euros in 2019.²³⁵

Iberdrola started operating in **Mexico** in 1999, against the background of the 1992 Law on Electric Utility Companies. This law contradicted the Mexican Constitution, as it allowed the electricity sector to be partly privatized, opening the door to transnational corporations (Uharté 2012, 84). Since 2011, Iberdrola has consolidated its position as the second largest electricity generation company in the country (and the largest in the private sector), after the state-owned Federal Electricity Commission.²³⁶ Its current market share is around 15% and it has 1,300 employees on the payroll.²³⁷ Its electricity generation business in Mexico is highly profitable, surpassing the transnational's average profit margin.²³⁷

In 2020, as well as several projects under construction, the company declared that it had installed capacity of 3,527 MW of its own and 7,146 MW for third parties. **It operates three photovoltaic plants, seven wind farms,²³⁹ 12 combined cycle gas turbine plants, and four cogeneration facilities.²⁴⁰** Despite presenting itself as an environmentally responsible company and a leader in renewable energy projects, it has clearly not stopped investing in fossil fuels and polluting energy sources.

Over the twenty years it has been operating in Mexico, Iberdrola has been denounced for causing a series of social and environmental conflicts. Protests by the people affected were not only ignored, but in some cases also criminalized. We will describe some of the most serious cas-

233 See: https://www.welt-ernaehrung.de/wp-content/uploads/2020/06/Anzeige_Landwirtschaftskammer_NRW_Bayer_Nativo_2016Okt.pdf, and https://www.welt-ernaehrung.de/wp-content/uploads/2020/06/Fallbeschreibung_Bayer_Nativo_Indien_Deutschland_Anzeige_20161019.pdf

234 See: https://www.iberdrola.com/wcorp/gc/prod/es_ES/informe-integrado/2021/informe-integrado/energetica-del-futuro.html

235 See: https://www.iberdrola.com/wcorp/gc/prod/es_ES/informe-integrado/2021/informe-integrado/principales-magnitudes.html

236 Véase: <https://www.jornada.com.mx/2011/01/29/economia/027n2eco>. An analysis of how Iberdrola came to operate in Mexico can also be found in Mantxo (2020, 13-14).

237 See: <https://www.iberdrolamexico.com/conocenos/20-aniversario/> y https://cincodias.elpais.com/cincodias/2020/06/25/companias/1593066523_973682.html

238 It can continue to count on the purchase of electricity by the Mexican government for another quarter of a century.

239 See: <https://www.iberdrolarenovablesmexico.com/>

240 See: https://www.iberdrola.com/wcorp/gc/prod/es_ES/informe-integrado/2021/informe-integrado/iberdrola-mexico.html. In addition, in 2013 it completed the "modernization" of the Laguna Verde nuclear power plant in the state of Veracruz.

es. In the **state of Oaxaca**, several of this corporation's projects have been **denounced for destroying the territory, violating the rights of indigenous peoples and displacing communities.**²⁴¹ According to the organizations of the people affected, such as the Asamblea de Pueblos Indígenas del Istmo Oaxaqueño en Defensa de la Tierra y el Territorio (Assembly of Indigenous Peoples of the Oaxaca Isthmus in Defence of Land and Territory), the construction of the La Ventosa, Bii Nee Stipa, La Venta III and Dos Arbolitos wind farms was taken forward with little transparency and **failed to respect ILO Convention 169, which makes it obligatory to consult the Zapotec communities affected** and obtain their free, prior and informed consent.²⁴² Local organizations point out that the lease contracts were signed in a manner that excluded local people and obliged them to accept conditions that were far from meeting their needs (Mantxo 2020, 15).

On the labour and social side, Iberdrola is accused of operating with the support of mafia-style trade unions, which are seeking to increase their control over workers and damp down conflicts. In Oaxaca, it has operated with the complicity of a pro-business union which charges for providing jobs and assures the transnational that the workforce will be strictly controlled. In addition, infrastructure megaprojects such as the wind farms in the Tehuantepec Isthmus have led to an increase in prostitution, causing cultural conflict in a territory where indigenous communities live (Uharte 2012).

The corporation has also been associated with negative impacts in the **state of Puebla**. There, since 2015 Iberdrola has been operating the PIER II wind farm in La Esperanza (66 MW of power) and the PIER IV wind farm (221 MW)²⁴³ in the territories of Cañada Morelos, Chapulco and Palmar de Bravo, where a legal dispute has arisen with the affected communities. Iberdrola is also taking forward the construction of a photovoltaic power plant in Cuyoaco, with 730,000 solar panels and the capacity to generate 200 MW on an area of 703 hectares, equivalent to 390 football pitches.²⁴⁴ These latter two projects now under construction have given rise to serious conflict and clashes with local communities and the workers in both facilities. In 2019, for example, members of the ejido communities of San Pedro Chapulco and Azumbilla filed a complaint stating that the PIER IV wind farm (its name stands for Renewable Energy Industrial Wind Farm) had been built without prior consultation. The communities only received the equivalent of 11 cents of a euro per square metre (Mantxo 2020, 16).²⁴⁵ According to the UPV-EHU researcher Luis Miguel Uharte, **TNCs involved in wind energy projects benefit hugely from the low rents they have to pay the owners of the land** (Martí & Uharte 2018). In Galicia (Spanish State), for example, the amount they pay per wind generator per year is eight times what they pay in Mexico. In the case of this wind farm in Puebla, the members of the ejido communities will not be able to grow crops or build on their land until 2050.²⁴⁶

Furthermore, a Semarnat Environmental Impact Report concluded that the installation of the PIER IV wind farm caused damage to native fauna

241 See, in particular, the research by EJAtlas on the wind corridor in the Tehuantepec Isthmus: (<https://ejatlas.org/conflict/corredor-eolico-en-el-istmo-de-tehuantepec-oaxaca>).

242 See also: <https://tradener.wordpress.com/2019/07/11/con-la-comunidad-zapoteca-de-union-hidalgo-contra-el-expansionismo-eolico-en-el-istmo/>

243 See: <https://www.iberdrolarenovablesmexico.com/parque-eolico-pier/>. The facility has 84 wind generators 80 metres high and 114 metres wide. Its aim is to meet a significant percentage of the energy needs of Cervecería Modelo, Soriana and Grupo Lala.

244 See: <https://www.iberdrolamexico.com/te-interesa/cuyoaco-nuestro-tercer-proyecto-solar-avanza/>

245 See also: <https://www.lajornadadeorientemexico.com.mx/puebla/ejidatarios-chapulco-iberdrola/>

246 Local people are not allowed to build on or farm the land within 150 metres around each wind generator (Mantxo 2020, 16).

and flora in the communities. Iberdrola therefore relocated more than 85,000 specimens of 40 plant species and 250 animals of 21 species from the communities bordering the Tehuacán–Cuicatlán biosphere. To improve its image, Iberdrola also repaired local roads, schools and sports facilities.²⁴⁷

It should also be mentioned that in June 2020 the 400 workers at the Iberdrola photovoltaic power plant in Cuyoaco went on strike. The protest was organized by the Confederación de Trabajadores de México (CTM or Mexican Workers Confederation) because Iberdrola owed the workers the equivalent of 480,000 euros for the work they had done building the plant.²⁴⁸

Research by Uharte (2012) has registered **several cases of systematic co-optation of political authorities at different levels of government by Iberdrola**. Thus, the transnational has used its extensive lobbying capacity and vast financial, intellectual and human resources to deceive local communities and obtain lease contracts under conditions that are hugely advantageous for it. In June 2020, President López Obrador himself stated that Iberdrola had become an energy monopoly thanks to the fraudulent neoliberal policies of previous governments.²⁴⁹ In short, the series of impacts of Iberdrola's operations in Mexico can be seen as an example of energy colonialism.

Box 15. Social and environmental conflicts associated with Iberdrola in the Spanish State and the Global South

In the Spanish State, the corporation has ties with the country's fascist past. Iberdrola was created in 1992 as a result of the merger of Hidroeléctrica Española (Hidro) and Iberduero, two companies that were in at the start of Spain's electrification drive during the Franco dictatorship. Their ties with the Franco regime are illustrated by the fact that the "Caudillo" based his image of power and modernity on electricity, first by building large dams, then thermal power stations, and finally nuclear power plants. Not only did the Iberduero and Hidro board members belong to the regime, they also benefited from the labour of political prisoners to build dams²⁵⁰ and caused serious damage to the communities affected by the flooding of villages, homes and farmland, which included harsh repression of protest.²⁵¹ When the dictatorship imposed the shift to nuclear power in the 1970s, popular resistance to the Franco regime reached its peak, coinciding with the birth of the anti-nuclear movement at the state and international level. In Euskal Herria (the Basque Country), opposition to the National Energy Plan, which sought to build seven nuclear reactors in the territory, led to high levels of popular protest. The anti-nuclear movement managed to bring several Iberduero projects to a halt. The best-known of these is the protest against the Lemóniz nuclear power plant, the construction of which was stopped in 1983.

247 See: <https://www.lajornadadeorientemexico.com.mx/puebla/semarnat-iberdrola-dano/>

248 See: <https://elpulsolaboral.com.mx/index.php/sindicatos/22112/cumple-24-horas-paro-de-la-ctm-en-obras-de-iberdrola-en-cuyoaco>

249 See: https://cincodias.elpais.com/cincodias/2020/06/13/companias/1592069998_015261.html

250 See: <https://www.lamarea.com/2014/11/20/franquismo-s/>

251 See: https://issuu.com/ekologistak-martxanboletina/docs/iberdrola_tribunal_bilbao_declaraci

It is important to remember that **Iberdrola has historically shown itself to be an active opponent of renewable energy development.**²⁵² In 2012, it drew up a proposal to regulate the self-consumption of photovoltaic solar energy, which was later approved as the “*Sun Tax*” introduced by decree by the Spanish State in 2015 and repealed in 2018. This decree attempted to eliminate renewable energy companies and cooperatives in the hands of small-scale producers and gave priority to the energy businesses of the oligopoly, such as the combined cycle gas turbine plants they had invested in massively prior to the crisis of 2008.

The Environmental Justice Atlas (EJAtlas) has documented as many as **14 conflicts directly involving Iberdrola around the world**²⁵³ and complaints against the corporation have been brought before two sessions of the Permanent People’s Tribunal (TPP 2010, TPP 2014). If we focus on its operations in Latin America, which it expanded during the 1990s, it was associated with conflicts in Guatemala and Bolivia in 2008 and 2012 due to the poor quality of its electricity supply, for having raised tariffs and for failing to guarantee access by certain groups of people, as a result of which it was expelled from these two countries (Mantxo 2015).

Iberdrola’s main Latin American operations are in Mexico and Brazil. In Brazil, Iberdrola’s subsidiary Neoenergia controlled more than 70% of the electricity market in 2017.²⁵⁴ As denounced by the *Movimiento de las Afectadas/os por las Represas* (MAB, or Movement of People Affected by Dams), the cost of electricity has risen by nearly 400% since the arrival of Iberdrola and the privatization of the electricity sector, making Brazil the country with the fifth most expensive electricity in the world. Tariffs in Brazil are significantly lower for large industries than for households. In addition to the construction of the hydroelectric power plants in Baixo Iguaçu and Teles Pires, Iberdrola managed to get the Brazilian government to include it in the Belo Monte project on the Xingú River, a tributary of the Amazon, which is the third largest hydroelectric power plant in the world with a capacity of 11,000 MW (Mantxo 2015). In these projects, **Iberdrola’s subsidiary companies have been accused of bribing the police and repressing protest by means of attacks and acts of violence against people and organizations that oppose these hydroelectric projects.**²⁵⁵

252 See the Greenpeace report on this: http://archivo-es.greenpeace.org/espana/Global/espana/report/cambio_climatico/Iberdrola%20empresa%20enemiga%20de%20las%20renovables.pdf

253 See: <https://ejatlas.org/company/iberdrola>

254 See also: <https://www.eia.gov/today-in-energy/detail.php?id=27472>

255 See: <https://dialnet.unirioja.es/servlet/articulo?codigo=4999333>



◀ Dr. Julisa Hernández Gijón during the presentation on the impacts of coke in Jáltipan during the meeting with the #ToxiTourMexico Caravan in Coatzacoalcos, December 2019

Photo: Martín Álvarez Mullally, OPSur

4.9 GARCÍA MUNTÉ ENERGY (GME)

Taula per Mèxic research team

***This section was reviewed by Dr. Hernández Gijón (Asociación Civil Chogosteros en Acción)**

García Munté Energía (GME) was incorporated in Catalonia in 1998.²⁵⁶ It operates in countries in all five continents, distributing more than four million tonnes of energy raw materials per year. Some of the most important subsidiaries taking forward the company's international operations are: GME Unipessoal (Portugal), GME Mexico and GME Morocco.²⁵⁷ The business group also includes Garcia Munté Energía South S.L. In partnership with Asesur, this company invests in biomass production, making use

256 Its predecessors include García & Cía, a company that started operating in 1922 in the fuel distribution sector in the Spanish State. In the 1970s, it became García-Munté S.A. and started to expand its operations internationally.

257 In 2018, García Munté Energía SL had registered assets worth 239,439,720 euros and sales of 695,168,373 euros, putting it in 252nd place in the National Corporate Ranking by sales, 125 places higher than in 2017. In the 2018 Barcelona Ranking the company was ranked 30th by sales, 17 places higher than in 2017. Also in 2018 it was ranked 13th in the ranking of businesses in the solid fuel, liquids and soft drinks wholesale sector, three places higher than in 2017 (see: <https://ranking-empresas.economista.es/GARCIA-MUNTE-ENERGIA.html>).

of ports and stockyards in Morocco (Nador), Egypt (Alexandria and Ain Sokhna), and Turkey (Iskederun and Smid).

GME Mexico started operating in 2004 and a year later partnered with the Mexican company CEMEX for a coke distillation business in Monterrey (Nuevo León). In 2013, the company changed its name to **ADN Energía**,²⁵⁸ which currently belongs to Grupo Clisa and supplies the state-owned enterprises PEMEX and Comisión Federal de Electricidad (CFE or Federal Electricity Commission). Its main plants are located in Altamira (Tamaulipas), Monterrey (Nuevo León), Veracruz, Hermosillo (Sonora), Puebla, Manzanillo (Colima), and Jáltipan de Morelos (Veracruz).

Since 2013, the company has been using an **open-air coke** (or petcoke) **storage terminal** in Emiliano Zapata-Altamira, in the municipality of Jáltipan, Veracruz, only a few kilometres away from the PEMEX refinery in Coatzacoalcos. The coke mainly comes from the Lázaro Cárdenas refinery in Minatitlán (see section 3.6). According to Hernández Gijón (2020), a doctor and adviser to the Asociación Civil Chogosteros en Acción organization, who has monitored the terminal's impacts from the start, **the damage to the environment and heritage sites caused by the construction of the terminal took place with the complicity of public officials**. The project was promoted particularly assiduously by former mayor Domingo Bahena, currently General Secretary of the Veracruz Congress. The construction work was authorized despite the existence of an archaeological site comprising pre-hispanic pyramids and burial mounds dating back 2,000 years.²⁵⁹ Although the INAH archaeologist Alfredo Delgado Calderón, who participated in the research, was aware of the value of the site, he did not prevent the construction of the terminal. The only condition imposed for awarding the concession was to turn the pyramid and workshop into "a protected area within the new coke plant".²⁶⁰

The local community has been denouncing the serious consequences of the GME terminal for years, and since 2014 the Chamber of Deputies has been calling for the federal government and the state of Veracruz to investigate the case.²⁶¹ The company has committed a series of irregularities and acts that are illegal under Mexican and international law, including storing coke in the open air (Official Mexican Standard NOM-005-STPS-1998), diverting the natural course of a stream that runs through the plant, and failing to produce an environmental impact statement.²⁶² It is important to recall that coke, which is used as fuel (mainly in the cement industry), is obtained by refining petroleum with a high carbon content. **The waste products generated by coke production have been classified as hazardous by Official Mexican Standard NOM-052-Semarnat-2005**.²⁶³ The waste includes chemicals and heavy metals such as nickel, vanadium, chromium, lead, sulphur dioxide, sulphates, and other **highly toxic by-products that are damaging to health and the environment** (Hernández Gijón 2020).

Among the most problematic factors, one of the most important is the **risk involved in transporting the coke to the storage site in lor-**

258 See: <https://adnenergia.com/empresa.htm>

259 See also: <https://www.proceso.com.mx/nacional/2013/8/2/pemex-empresa-espanola-una-amenaza-para-zona-arqueologica-de-veracruz-121656.html>

260 See: https://infosen.senado.gob.mx/sgsp/gaceta/62/2/2014-05-28-1/assets/documentos/PA_PT.JALTIPAN_Morelos_Veracruz.pdf

261 See: https://infosen.senado.gob.mx/sgsp/gaceta/62/2/2014-05-28-1/assets/documentos/PA_PT.JALTIPAN_Morelos_Veracruz.pdf

262 See: "El Jarocho Cuántico", N° 32, Supplement of La Jornada Veracruz

263 See: <http://www.paot.org.mx/centro/normas/NOM-052-SEMARNAT-2005.pdf>

ries and freight trains without sufficient safety measures. The coke turns to dust due to wind erosion, and when it comes into contact with the air it can produce explosive mixtures. To prevent this, **it is regularly doused with water, producing a toxic cloud of gas and vapour that constantly hovers over Jáltipan and nearby municipalities.** This is the most serious form of pollution. But rain also results in leachates that are channelled by the GME plant to nearby fields, where they drain into streams and the water table, which is very near the surface in Jáltipan, forming springs. The water-borne particles are deposited in streams and rivers, affecting plants and wildlife. This is directly related to the deaths of fish, turtles and other local species that the affected communities have seen happening since 2013 (Caravana ToxiTourMexico 2020a).

Hernández Gijón (2020) states that all these forms of pollution are due to the fact that the respirable particulate fraction (PM10 and PM2.5) is higher than the normal level that can be tolerated by living beings. In humans, this is **associated with serious respiratory problems such as chronic pharyngitis, allergic rhinitis, asthma, bronchitis, chronic obstructive pulmonary disease (COPD) and lung cancer.** The doctor points out that it is also related to cardiac problems such as heart attacks; neurological problems (anxiety, depression, Alzheimer's disease); renal insufficiency; digestive system problems (serious constipation, gallstones); and musculoskeletal disorders (arthralgia, osteoarthritis, osteoporosis and bone fragility). She observes that in this health emergency situation caused by exposure to coke, local people are even more vulnerable to the COVID-19 pandemic. In their documentation of this case, the doctor and Chogosteros en Acción conclude that coke is incompatible with life.

Box 16. Social and environmental conflicts associated with GME in the Global South

According to research by Greenpeace, García Munté Energía (GME) is one of the companies that **imported coal from Colombia and Russia into the Spanish State** between 2014 and 2017 (2019, 34-35). The Spanish State is the European country whose greenhouse gas emissions increased the most between 1990 and 2017, largely due to burning this fossil fuel. Even though coal mining is being reduced in Spain itself under European law, thermal power stations still use coal imported from countries in the Global South. Greenpeace has documented serious human rights violations and environmental damage taking place in these countries, in which the supply chains of the importing companies are implicated.

In **Colombia**, for example, coal mining is concentrated in the departments of La Guajira and Cesar. In both these regions, the industry is causing air and water pollution, as well as preventing the affected communities from accessing land and water. Incidents of illegal land grabbing by non-state armed actors and forced displacement have been reported there, with serious impacts on the rights of indigenous peoples and African-descent communities (2019, 31).

In the Kuzbass region of **Russia**, mining companies operate as close to local communities as possible, in order to reduce transport and labour costs. More than 70% of the coal mining in this region is open cast mining, without the technology necessary to prevent pollution or programmes to restore biodiversity and ecosystems (2019, 37).

Greenpeace concludes that the lack of transparency in corporations like GME means that they fail to respond effectively to the damage caused by their suppliers and other subcontracted companies, enabling them to shirk responsibility. Thus, they are failing to comply with mandatory human rights due diligence that requires them to identify, prevent, mitigate and be held accountable for how they address their impacts.



Isabel Cano Flores (Coordinator of Por un Atoyac con Vida). Her daughter Zulma died due to the environmental pollution that TNCs in Puebla and Tlaxcala have caused by dumping wastewater into the Atoyac River. Like so many other affected families, Isabel has still not managed to pay off all the debts she incurred to cover the cost of her daughter's medical treatment. She asks, "Is there anyone who really understands how painful it is to bury our children?"

Photo: Martín Álvarez Mullally, OPSur

CONCLUSIONS AND RECOMMENDATIONS

Over the last thirty years, Mexico has become one of the main industrial paradises on the planet, meaning one of the **most advanced laboratories for free trade and deregulation**. Arguing the need to attract investment at all costs for “development” and job creation, under trade agreements such as NAFTA or the EU-Mexico FTA the diversion of power has intensified and become more sophisticated. A regime has been imposed, in which the law allows environmental, social and labour self-regulation by companies. Much of Mexico’s territory has been subjected to the development of dense, interconnected industrial corridors, where high-risk industries, extensive agribusiness and extractive industries have proliferated. These sites are located alongside towns and cities with no monitoring of their impact on the health of local people.

The “Caravan on the social and environmental impacts of transnational corporations and free trade in Mexico” (#ToxiTourMexico) only visited six regions or environmental hells. This meant that it was only able to see for itself a small proportion of the real **social and environmental devastation** caused by neoliberalism in this country, leading to what can only be described as a humanitarian disaster. There is in fact evidence of the extent to which the most industrialized regions of the country are characterized by systematic air, water and soil pollution, compounded by unbridled urbanization and the proliferation of landfill sites and dumping grounds for highly toxic waste. Not only has this led to a **health and environmental emergency**, in which the numbers of people dying due to diseases associated with corporate operations in different sectors are overwhelming, as we have seen in this report. For the people affected, this process is also taking place against the background of violent land grabs, depriving them of their means of economic, social and cultural subsistence, destroying their health and the very fabric of their communities.

Even though they are aware of this situation, not only have successive **Mexican governments at the municipal, state and federal level** hitherto failed to act, they have also concealed the environmental, labour and social impacts, ignoring the protests and claims of the people affected. They have also worked to contain social discontent by means of policies to criminalize and repress protest, as well as failing to prevent the terror being sown in community organizations by various criminal groups. Furthermore, they have facilitated the implementation of new industrial and infrastructure megaprojects that only increase the risks to local people. Meanwhile, with the exception of a few journalists who have provided valuable and courageous coverage at the local and regional level, **the Mexican media’s silence** makes it complicit in the dramatic situation in which the affected people find themselves. The regime of impunity in which businesses are able to operate is closely linked to the difficulty of demonstrating their direct responsibility for the damage they cause. This is due to the **absence of public scientific research** that could reveal the extent of the disaster and prevent it. The Mexican government, the media and academia can all be said to owe a historic debt to the affected people.

One of the things that the Caravan's international observers found most striking is the **capacity to resist and organize protest developed by the affected communities** in the six regions. It was clear that despite the social and environmental destruction of their territories and the constant attacks on their lives and health they have endured for decades, they have been able to monitor the impacts, developed a significant capacity to conduct collective analysis and bring together the whole set of processes they are facing, and forged links with a few committed scientists who have provided backing for the community's assessments. In the midst of the COVID-19 pandemic in 2020, and taking advantage of the visibility they had achieved, partly thanks to the Caravan, these organizations kept up the pressure on the government. And in 2021 they achieved a historic step forward, which could set a precedent for other regions both in Mexico and around the world. As highlighted in chapter one of this report, the advocacy work done by the affected communities with different government departments obtained a commitment from top-level authorities in the ministries of the environment and health and Conacyt to coordinate to start to take action under the Coordination Framework Agreement. Government compliance with its commitments here is as urgent as it is necessary, and must be monitored by civil society in Mexico and internationally.

It is also important to mention the **governments of European countries and the United States**, where many of the transnational corporations studied in this report have their headquarters. They provide public support and funding for the international operations of these transnationals in the form of insurance, credit and technical assistance, with no control or guarantee that environmental and human rights standards will be respected. Neither do they accept any responsibility for the conflicts that arise. They pressure other countries to sign free trade and investment protection agreements. A case in point is the renegotiation of the free trade agreement between the European Union and Mexico, thanks to which Mexico is set to be the first Latin American country to sign an investment protection agreement with the European Union as a whole, as this report has highlighted. If this agreement is approved, it will ring-fence the corporations' power still further and could hamper the implementation of policies committed to human rights in Mexico.

As Ramón Vera-Herrera points out, the Caravan was "a direct result of the Permanent People's Tribunal process, to give it continuity through the work of an Anti-Genocide Network, which has been trying to bring to light the violence being perpetrated against the Mexican people in every area of the country's life".²⁶⁴ But the Caravan has not only revealed the serious situation affecting local communities in the six regions. It was also a way to forge links between social and environmental campaigns in Latin America, Europe and the United States. As mentioned in the first chapter of this report, in 2020 advocacy work was done in Ecuador, Argentina, the European Union and the United Nations. Because of the pandemic, these initiatives by community organizations as well as the members of parliament who participated in the Caravan as international observers had to take place online. Neverthe-

264 See: <https://desinformemonos.org/caravana-sobre-los-impactos-sociales-ambientales-y-sociales-de-empresas-transnacionales-y-el-libre-comercio-en-mexico-el-cotejo-de-la-sociedad-civil/>

less, they have had repercussions and laid the foundations for maintaining the commitment to the organizations of affected communities in Mexico and consolidating the campaign against free trade and corporate impunity.

The results of the Caravan provide new and compelling evidence of the urgent need to strengthen organizations defending human rights around the world, by making use of binding agreements and mechanisms, as a first step towards safeguarding the peoples' rights and social and environmental justice.

The **main recommendations** arising from the results presented in this report are as follows:

■ In Mexico:

1. The different government departments involved in the Framework Agreement signed by Semarnat, the Ministry of Health and Conacyt must fulfil their commitments to declare, monitor and restore the Environmental and Health Emergency Regions (RESAs). In addition, they must use their powers to rectify what their regional representatives have done or are doing wrong in the RESAs.
2. The Mexican government should develop and enforce a regulatory framework to control industrial emissions and prevent environmental dumping, in keeping with best international practices.
3. Environmental clinical records should be established so that medical staff in all the country's hospitals and health centres ask patients whether they live near industries or intensive farming areas, as well as enquiring about their potential exposure to toxic substances (pesticides, hydrocarbons, industrial waste, and chemicals). This will enable progress to be made towards the identification and cataloguing of diseases caused by environmental pollution.
4. The Mexican government must put an end to the criminalization of people defending human rights and the environment.
5. Article 4 of the Mexican Constitution, concerning everyone's right to live in a healthy environment for their development and wellbeing, must be enforced.
6. The Mexican government should support victims to demand justice and reparations for the damage caused by the corporations responsible for pollution, including the compensation they are entitled to receive, and take decisive action to prevent any further damage.
7. The Mexican government should stop taking forward new megaprojects opposed by local people, which do nothing but worsen the damage caused by the free trade industrial corridors.
8. The Mexican government should *urgently invite the following United Nations* experts to assess the situation in the country in their areas of work and issue specific recommendations: Pedro Arrojo Agudo, Special Rapporteur on the human rights to safe drinking water and sanitation; David R. Boyd, Special Rapporteur on human rights and the environment;

Marcos A. Orellana, Special Rapporteur on toxics and human rights; Hilal Elver, Special Rapporteur on the right to food; and Tlaleng Mofokeng, Special Rapporteur on the right to physical and mental health.

9. The Mexican government must report on the free trade agreements it is planning with full transparency, and call a halt to negotiations on the new agreement with the European Union, which will continue to undermine the possibility of adopting policies that promote compliance with human rights and environmental standards.
10. The Mexican Senate must refuse to ratify the signing of the agreement between the European Union and Mexico.
11. The Mexican government should participate in and actively support the negotiation of a legally binding instrument or treaty in the UN Human Rights Council to oblige transnational corporations to respect human rights at every stage of their global supply chains.

■ The United States Congress should:

1. Issue an official statement expressing concern about the impact of US-based transnational corporations and the free trade agreement on human rights, public health and the environment, based on the Mexican government's recent acknowledgement of the public health emergency.
2. Launch an official investigation and hold a session to analyse the impact of US-based transnational corporations on human rights, public health and the environment in Mexico, including the extent of US government funding (through the World Bank, USAID and other agencies) that has facilitated or supported these investments.
3. Ask the Department of Justice to investigate legal means to hold US corporations accountable for their social and environmental impact, including their direct or indirect support for the intimidation and harassment of human rights defenders.
4. Push for the US government under President Joe Biden to seek to harmonize the most ambitious environmental regulations in the United States and oblige US corporations operating in Mexico to abide by them in that country too.
5. Investigate the role of the trade agreements signed by the United States in human rights compliance and environmental protection in Mexico, including the role these agreements have played in undermining human rights and criminalizing human rights defenders.
6. Assess compliance with the stipulations made in the new trade agreement between the United States, Mexico and Canada on environmental protection.
7. Review and promote ambitious bilateral actions with Mexico to tackle climate change.
8. Support the adoption of solid international standards, such as the legally binding instrument or treaty to oblige transnational corporations to respect human rights at every stage of their global supply chains, including civil and criminal sanctions should they fail to do so.

■ In the European Union:

1. The European Union should draw up regulations to allow people affected by the environmental and social impacts of the operations of European transnational corporations to take their case to courts that protect the human rights of the individuals and communities affected and oblige the corporations to comply with strict environmental, health and human rights protection standards.
2. The European Union should establish a binding legal framework, including administrative, civil and criminal sanctions, to oblige European companies to respect human rights and the environment in all of their global supply chains.
3. The European Union should pressure the Mexican government to oblige all industrial corporations operating in Mexico to abide by harm prevention, protection, punishment and reparations standards that are at least equal to those in place in the European Union itself.
4. The European Union should develop effective verification mechanisms to identify corrupt practices by European corporations in third countries.
5. The European Commission and the European Parliament should foster direct dialogue with Mexican civil society organizations regarding respect for human rights and protection for the most vulnerable groups of people.
6. Instead of working to maintain a system of voluntary standards for corporations, the European Commission should actively support the negotiation of a legally binding instrument or treaty in the UN Human Rights Council to oblige transnational corporations to respect human rights at every stage of their global supply chains, including civil and criminal sanctions should they fail to do so.
7. The European Parliament should conduct an audit of the social and environmental impacts produced in Mexico by the EU-Mexico Global Agreement signed twenty years ago, with the participation of Mexican and European civil society groups. It should also refuse to ratify the new agreement between the European Union and Mexico.
8. The European Union should put an end to all bilateral and regional trade agreements that consolidate a trade and investment regime which shields European capital from liability for human rights violations and damage to the environment outside the EU.
9. The European Commission and the European Parliament should meet their international commitments and strictly implement the guarantee that toxic chemicals banned in the European Union will not be produced for export, as stipulated in the Communication *"Chemicals Strategy for Sustainability. Towards a Toxic-Free Environment"* (COM 2020, 667 final, 14 October 2020, page 24).

■ In Germany:

1. The German government should actively support the implementation of this report's recommendations addressed to the European Union, and back the adoption and enforcement of the relevant regulations and standards.
2. The German government should advocate for the adoption of binding European legislation regarding corporations' accountability for their supply chains. It should refrain from blocking such legislation if it is more ambitious than Germany's own Supply Chain Due Diligence Act (LkSG) passed on 11 June 2011.
3. The German government must cease to use public funding, including via government procurement, to support German transnational corporations associated with human rights violations and damage to the environment in third countries.

■ In France:

1. The French government should actively support the implementation of this report's recommendations addressed to the European Union, and back the adoption and enforcement of the relevant regulations and standards.
2. Enforcement of the 2017 French Corporate Duty of Vigilance Law requires:
 - A. The French parliament to expand the scope of the law and reduce the thresholds for the companies covered by the law.
 - B. The French parliament to facilitate and reinforce the application of the law, so that the communities and individuals affected can access justice.
 - C. That the burden of proof be reversed so that it falls on the corporations rather than the affected parties.
 - D. Publication of the list of companies that fall within the scope of application of the existing law.
 - E. The allocation of public funding to monitor the infringements committed by companies that break the law, so that this burden does not fall solely on civil society.
3. The French government should firmly support the establishment of a binding legal framework at the EU level, including administrative, civil and criminal sanctions, to oblige European companies to respect human rights and the environment in all of their global supply chains.
4. The French government should refuse to support the signing of the new agreement between the European Union and Mexico.
5. The French parliament must refuse to ratify the new agreement between the European Union and Mexico or any other similar agreement.
6. The French parliament should adopt binding rules to prohibit the export of pesticides classified as highly hazardous by the Pesticide Action Network (PAN).

7. The French government must cease to use public funding, including via government procurement, to support French transnational corporations associated with human rights violations and damage to the environment in third countries.

■ In the Spanish State:

1. The Spanish government should actively support the implementation of this report's recommendations addressed to the European Union, and back the adoption and enforcement of the relevant regulations and standards.
2. The Spanish government should advocate for the development of a legally binding international instrument or treaty to oblige transnational corporations and other companies to respect human rights.
3. The Spanish government and the Spanish State's Autonomous Communities should:
 - A. Create mechanisms for public oversight of the operations of Spanish transnational corporations abroad, including funding for analysis, evaluation and accountability, and to respond to and investigate complaints.
 - B. Include assurances that human rights will be respected in public procurement and subsidies.
 - C. Conduct an audit of the Fondo para la Internacionalización de la Empresa (FIEM or Fund for the Internationalization of the Company) and other state agencies that finance the international operations of Spanish corporations, to ensure that they comply with the requirement to respect human rights in their business activities outside the EU, and suspend funding in cases where human rights violations are documented.
4. The Congress of Deputies should approve a law that makes it possible to hold accountable Spanish transnational corporations, their subsidiaries, suppliers, contractors and other players involved in their value chains when they fail to comply with their duty to respect human rights in their international business activities, including administrative, civil and criminal sanctions.
5. The Catalan government should act on the mandate from the Catalan Parliament and support the creation of the "Business and Human Rights Centre" to hold companies that operate and/or have their headquarters in Catalonia accountable for their actions in countries in the Global South.

■ In Switzerland:

1. Parliament should revisit the possibility of passing a law to ensure that companies are legally obliged to respect human rights and the environment in all their business activities, as proposed in the “Responsible Business Initiative”.
2. Parliament should adopt binding rules to prohibit the export of pesticides classified as highly hazardous by the Pesticide Action Network (PAN) and support a binding international treaty to put an end to the use of hazardous pesticides everywhere in the world.
3. Parliament should conduct an audit of all bilateral and regional trade agreements to examine respect for human rights and the environment, and refuse to sign new agreements under EFTA, such as those currently being negotiated with the MERCOSUR countries.
4. The Swiss government must cease to use free trade agreements to pressure countries in the Global South to sign the UPOV 91 or similar standards to protect intellectual property rights over seeds.
5. The Swiss government must cease to use public funding, including via government procurement, to support Swiss transnational corporations associated with human rights violations and damage to the environment in third countries.
6. The Swiss government must cease to provide any support to Nestlé that enables the corporation to expand its business operations, especially in the area of official development aid, without holding it responsible for the social and environmental damage it causes in the Global South.
7. The Swiss government must cease to use public funds to support public-private partnerships that benefit Syngenta, and demand that this corporation complies with its tax obligations.



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APPENDIX 1: LIST OF INDIVIDUALS AND INTERNATIONAL ORGANISATIONS THAT PARTICIPATED IN THE CARAVAN

- ▶ Leïla Chaïbi (Member of the European Parliament for France Insoumise, France, The Left in the European Parliament)
- ▶ María Eugenia Rodríguez Palop (MEP for Podemos, Spanish State, The Left in the European Parliament)
- ▶ Mikel Otero (Member of the Basque Parliament, EHBildu)
- ▶ Patricia Torres Ray (Senator of the State of Minnesota, United States)
- ▶ Acción Ecológica (Ecuador)
- ▶ Corporate Accountability (United States)
- ▶ Ekologistak Martxan (Basque Country),
- ▶ México vía Berlín (Germany)
- ▶ Multisectorial Antiextractivista / Campaña Gane Quien Gane (Argentina)
- ▶ Oficina Ecuménica por la Paz y la Justicia (Germany)
- ▶ Observatorio de Multinacionales en América Latina (Spanish State)
- ▶ Observatorio Petrolero del Sur (Argentina)
- ▶ Taula per Mèxic (Spanish State)
- ▶ Transnational Institute (The Netherlands)
- ▶ Union of People Affected by Chevron-Texaco (Ecuador)
- ▶ ZEB – Zentrum für Entwicklungsbezogene Bildung (Germany)

APPENDIX 2: LIST OF ORGANISATIONS OF AFFECTED PEOPLES AND OTHER MEXICAN ORGANISATIONS THAT PARTICIPATED IN THE CARAVAN

1. Agua, Tierra y Aire Limpio para nuestros pueblos: El Salto, Juanacatlán, Puente Grande, Toluatlán, Los Laureles
2. Asamblea Nacional de Afectados Ambientales (ANAA)
3. Alianza Hidalguense Ambiental
4. Amando la Naturaleza A.C.
5. APETAC
6. Asamblea Maseual Autónoma del Agua
7. Caminando por la Justicia. Atitalaquia Hidalgo
8. Centro de Desarrollo Agropecuario A.C. (CEDESA)
9. Centro Fray Julián Garcés Derechos Humanos y Desarrollo Local A.C.
10. Chogosteros en acción. A.C. Municipio de Jáltipan de Morelos Veracruz
11. Coalición en Defensa de la Cuenca de la Independencia (CODECIN)
12. Coalición de Organizaciones Democráticas Urbanas y Campesinas (CODUC)
13. Colectivo Altepee
14. Colectivo Hermanos Serdán
15. Colectivo Multidisciplinario por las Alternativas Locales (COMAL)
16. Comité Agua y Vida, Santa Cruz de las Flores, Tlajomulco de Zuñiga
17. Comunidad de Huaxtla
18. Comunidad de San Lorenzo
19. Comunidad indígena coca de Mezcala y San Pedro Itzicán y sus enfermos renales
20. Consejo Regional de Pueblos Originarios en Defensa del Territorio de Puebla e Hidalgo
21. Coordinadora Nacional Plan de Ayala Movimiento Nacional (CNPAMN)
22. Coordinadora por un Atoyac con Vida
23. LIDECS
24. Coordinadora de los Pueblos en Defensa del Río Atoyac
25. MVZ Cristina Caldera Muñoz. Guanajuato, Guanajuato, con el tema: Los daños de Plaguicidas de la Campaña contra el Dengue a nivel nacional
26. EcoTuzupán. San José Tuzupán, Quecholac, Puebla
27. Fundación para el Desarrollo Integral Apaztle, Municipio Apaxco, estado de México
28. Frente de Comunidades contra la Incineración
29. Grupo Nuestras Aguas, Casa Blanca, Poncitlán
30. Laboratorio de Investigación en Desarrollo Comunitario y Sustentabilidad (Lidecs)
31. Observatorio Ambiental Ciudadano Biósfera
32. Omniunity A. C.
33. Organización Kinti Soluciones Sostenibles
34. Movimiento de Autogestión Social Campesino Indígena Popular (MASCIP CNPAMN)
35. Movimiento Independiente Obrero Campesino Urbano Popular (MIOCUP CNPAMN)
36. Movimiento para la Defensa del Agua y de la Tierra (MODAT-CNPAMN)
37. Museo Comunitario Atotonilli
38. Pueblos de la Barranca del río Santiago. Azqueltlán Amacueca
39. Pueblos Unidos Contra la Privatización del Agua
40. Daniel Nava Atrisco, de Miravalle, Iztapalapa. Ciudad de México. Por su trabajo de diseño gráfico e identidad para la Caravana #ToxiTourMexico
41. Radio Xalli
42. Red Alebrije
43. Educación Colaborativa
44. Red Conciencia Ambiental "Queremos Vivir" A.C.
45. Resistencia Civil Pacífica
46. Unión de Ecologistas San Jerónimo Tlamaco
47. Unión Popular de Vendedores Ambulantes 28 de Octubre
48. Un Salto de Vida A.C.
49. Unión de Científicos Comprometidos con la Sociedad (UCSS)
50. Unión de Trabajadores de Desechos Sólidos Industrializables, Lázaro Cárdenas del Río del estado de Guanajuato A.C.
51. Yo Prefiero El Río Tula

APPENDIX 3: MEDIA COVERAGE

Date	Media outlet	Link
18/11/2019	Desinformémonos	https://desinformemonos.org/caravana-sobre-los-impactos-sociales-ambientales-y-sociales-de-empresas-transnacionales-y-el-libre-comercio-en-mexico-el-cotejo-de-la-sociedad-civil/
29/11/2019	Somos el Medio	https://www.somoselmedio.com/2019/11/29/del-2-al-11-de-diciembre-la-caravana-toxi-tour-mexico-recorrera-las-peores-areas-de-contaminacion-explotacion-social-y-laboral-en-mexico/
29/11/2019	Zona Docs	https://www.zonadocs.mx/2019/11/29/del-2-al-11-de-diciembre-la-caravana-toxi-tour-mexico-recorrera-las-peores-areas-de-contaminacion-explotacion-social-y-laboral-en-mexico/
3/12/2019	La Cascada	https://www.youtube.com/watch?v=3m0kE1FaFhk
3/12/2019	La Coperacha	https://lacoperacha.org.mx/inicia-recorrido-del-toxi-tour-mexico/
4/12/2019	La Jornada	https://www.jornada.com.mx/2019/12/04/estados/033n1est
4/12/2019	El Universal	https://www.eluniversal.com.mx/estados/realizan-toxitour-para-evidenciar-dano-ecologico-de-empresas
4/12/2019	Blog de Paz con Dignidad	https://www.pazcondignidad.org/blog/mexico-caravana-de-denuncia-de-impactos-sociales-y-ambientales-en-mexico-toxi-tour/
5/12/2019	INFOBAE	https://www.infobae.com/america/mexico/2019/12/05/toxitour-un-recorrido-por-los-lugares-mas-contaminados-de-mexico/
5/12/2019	InfoQuorum	https://infoquorum.com/notas/2019/12/05/Puebla/ToxiTour_llegar%C3%A1_a_Puebla_para_exhibir_crisis_ambientales
8/12/2019	La Jornada de Oriente	https://www.lajornadadeoriente.com.mx/tlaxcala/en-tlaxcala-crece-la-industria-alegremente-sin-monitoreo-real-de-descargas-toxicas-expertos/
10/12/2019	Radio France Internationale	https://www.rfi.fr/es/americas/20191210-toxi-tour-un-viaje-para-denunciar-los-crimes-socio-ambientales-en-mexico
10/12/2019	Proceso	https://www.proceso.com.mx/nacional/2019/12/10/la-destruccion-por-el-desarrollo-industrial-descontrolado-deja-en-estado-de-shock-delegacion-extranjera-235666.html
10/12/2019	Reflexión 24, informativo	https://reflexion24informativo.com.mx/conferencia-de-prensa-de-la-caravana-toxitourmexico/
10/12/2019	Imagen del Golfo	https://www.youtube.com/watch?v=4C1gXyLYNoI
11/12/2019	Noticieros Televisa	https://www.youtube.com/watch?v=ivpG4_ZHokg
11/12/2019	Proceso	https://www.proceso.com.mx/nacional/2019/12/11/semarnat-promete-atencion-en-seis-regiones-con-alto-deterioro-ambiental-235713.html
11/12/2019	La Jornada de Oriente	https://www.lajornadadeoriente.com.mx/tlaxcala/la-caravana-toxi-tour-en-tlaxcala-denuncia-internacional-de-la-inmoralidad-y-la-negligencia/

12/12/2019	Portal Ambiental	https://www.portalambiental.com.mx/politica-ambiental/20191212/autoridades-ambientales-reciben-el-resultado-de-caravana-toxi-tour
12/12/2019	Biodiversidad en América Latina	http://www.biodiversidadla.org/Noticias/El-pais-casi-tan-contaminado-como-China-o-India-Barreda
13/12/2019	La Octava Televisión	https://www.youtube.com/watch?v=8FsoJdvAwj4
13/12/2019	Público	https://www.publico.es/internacional/toxi-tour-comunidades-mexicanas-piden-declaren-emergencia-ambiental-no-exista-pais.html
16/12/2019	Desinformémonos	https://desinformemonos.org/una-probadita-del-infierno/
17/12/2019	SinEmbargo	https://www.sinembargo.mx/17-12-2019/3693717
20/12/2019	EME EQUIS	https://www.m-x.com.mx/al-dia/el-drama-del-rio-mas-contaminado-de-mexico-sustancias-toxicas-azotan-a-jaliscienses-desde-hace-10-anos
11/03/2020	El Sol de Tlaxcala	https://www.elsoldetlaxcala.com.mx/analisis/caras-y-mascaras-la-caravana-toxi-tour-mexico-empezo-a-dar-frutos-4954759.html
21/01/2020	Noticieros Televisa	https://noticieros.televisa.com/ultimas-noticias/aumentan-casos-cancer-valle-mezquital-infierno-ambiental-toxitour/
21/01/2020	Canal de Youtube de la Europarlamentaria Leila Chaïbi	https://www.youtube.com/watch?v=6lLu9060ty8
21/01/2020	Canal de Youtube de la Europarlamentaria Leila Chaïbi	https://www.youtube.com/watch?v=01OppMwD6lM&feature=youtu.be
21/01/2020	Canal Youtube de la Europarlamentaria Leila Chaïbi	https://www.youtube.com/watch?v=3WlFeVmlUck&feature=youtu.be
21/01/2020	Canal Youtube de la Europarlamentaria Leila Chaïbi	https://www.youtube.com/watch?v=Q1-A-MX8-Yl&feature=youtu.be
28/01/2020	El Salto Diario	https://www.elsaltodiario.com/mapas/el-infierno-del-paraiso-industrial-el-salto-rio-santiago
14/04/2020	Página del Centro Fray Julián Garcés	https://www.centrofrayjuliangarcés.org.mx/2020/04/14/galeria-fotografica-el-toxi-tour-mexico-recorrio-las-peores-areas-de-contaminacion-explotacion-social-y-laboral-en-mexico/
30/04/2020	Bilaterals	https://www.bilaterals.org/?eu-mexico-agreement-serious&lang=en
9/5/2020	Excelsior	https://www.excelsior.com.mx/nacional/mueren-mas-en-las-zonas-contaminadas-semarnat-alerta-por-impacto-en-salud/1380910
29/05/2020	ALAI	https://www.alainet.org/es/articulo/206882
4/11/2020	Acción Ecológica	https://www.accionecologica.org/toxitour-mexico-y-los-impactos-del-tlc/
5/11/2020	Milenio	https://www.milenio.com/ciencia-y-salud/contaminacion-mexico-ocasionada-empresas-extranjeras-ong
8/11/2020	La Jornada de Oriente	https://www.lajornadadeoriente.com.mx/tlaxcala/empresas-alemanas-con-operaciones-en-mexico-deben-protger-a-la-naturaleza-y-a-personas-misereor/

#TOXI TOUR MEXICO



TRANSNATIONAL CORPORATIONS AND FREE TRADE IN MEXICO CARAVAN ON THE SOCIAL AND ENVIRONMENTAL IMPACTS

This report presents the main results of the “Caravan on the social and environmental impacts of transnational corporations and free trade in Mexico” (#ToxiTourMexico), which took place in December 2019 with the participation of fifty organizations of affected communities in Mexico, members of the European Parliament and the Parliament of the Basque Country, a senator from the State of Minnesota, and scientists and observers from organizations in Germany, Argentina, Ecuador, the United States, France, Catalonia, Mexico, the Basque Country and the Netherlands. Members of the European Network of Corporate Observatories (ENCO) also contributed.

PUBLISHED BY:



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Senator Patricia Torres Ray

Patricia Torres Ray



Zentrum für Entwicklungsbezogene Bildung