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Strong Institutions for Territorial Justice

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Definition

Territorial justice is the result of strategies, policies, and measures to avoid the geographical coincidence of social injustice and environmental injustice.

Social injustice is an unequal distribution pattern for wealth and uneven access to essential public services. This leaves behind disadvantaged persons, weak communities, and vulnerable social groups, such as low-income and less-educated persons, the disabled, the elderly, young infants, racial and ethnic minorities, religious minorities, sexual minorities, refugees, etc.

Environmental injustice is the uneven exposure to human-made environmental pollution and overexposure to anthropogenic environmental hazards which impairs more directly those who live or work near the source of pollution.

Consequently, *territorial injustice* is the inequitable overlap, in the same country, region, or place, of vulnerable populations and environmentally harmful activities.

Introduction

The first section on "Uneven Spatial Distribution of Environmental Burdens" highlights the inequalities behind territorial injustice and the reasons explaining the territorial overlap between social injustice and environmental injustice impacting vulnerable social groups living near sources of pollution and hazards. The second section explains the "The Sustainable Development Paradox" or the dilemmas associated with finding compromise solutions preventing territorial injustice. The next two sections describe "The Role of the Courts" in the protection of victims of territorial injustice, showing that "Insufficient Judicial Protection" is the rule rather than the exception, and that more effective solutions are needed. Section five presents examples of "International and Supranational Legal Instruments to Prevent Territorial Injustice." Section six, on "Geospatial Knowledge for Territorial Justice," introduces the use of new information and communication technologies to develop decision support tools for visualization of territorial injustice. The last section before the conclusion sheds some light on the possible outcomes of using legal instruments and technology-based tools to strengthen the institutions and deliver social, environmental, and territorial justice.

The line of reasoning adopted is a two-step approach: firstly, demonstrating that the conventional solutions presented to those claiming for

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territorial justice are frankly insufficient (Section on "Insufficient Judicial Protection"). The courts have not been capable of pacifying the victims in cases of blatant territorial injustice. Secondly, showing how existing legal instruments and geospatial technologies can and must be merged and used together by strong institutions to foresee and preventively avoid any case of territorial injustice (Sections on "International and Supranational Legal Instruments to Prevent Territorial Injustice" and "Geospatial Knowledge for Territorial Justice").

Uneven Spatial Distribution of Environmental Burdens

Living in safe environments is a condition of utmost importance for human health and well-being (CSDH 2008). The right to live in a healthy environment is recognized in many constitutions throughout the world (UN SRHRE 2020). Yet, the prevalence of vulnerable social groups living in deteriorated environments is growing (Eurostat 2019). The World Health Organization has gathered evidence of frequent overlap between multiple inequalities:

- Housing-related inequalities (lack of a flush toilet, lack of a bath or shower, overcrowding, housing dampness, and thermal discomfort)
- Basic service inequalities (reduced access to drinking water services, no access to basic sanitation services, and energy poverty)
- Work-related and transport inequalities (work-related injuries and mortality, risks in working environments, and fatal road traffic/transport injuries)
- Environmental inequalities (exposure to air pollution, noise annoyance, chemical exposure, contaminated sites, and lack of access to recreational or green areas) (WHO 2019)

In addition, the same populations are also more vulnerable to natural risks such as earthquakes, heat waves, or hurricanes (Driesen et al. 2005).

Territorial injustice (Boyne and Powell 1991; Rauhut 2017)—also called spatial justice (Pirie 1983)—is the result of several of these inequities (Wilkinson and Pickett 2009) occurring in the same country, region, or place. Furthermore, territorial injustice can as well occur between countries (EEA 2018) revealing that territorial injustice is a crosscutting problem with international incidence.

The overlap between social injustice (ILO 2008) and environmental injustice arises because it is common for vulnerable social groups to live near sources of pollution and hazards (UN HRC 2018a) and consequently, to be more exposed to unhealthy environments than the average population (EEA 2018). The most debated case of territorial injustice is *environmental racism*, in other words, the frequent exposure of racial minorities to nuisance from waste treatments facilities (Bullard 2000; Westra and Lawson 2001).

Territorial injustice is explained by the first "law" of geography: "all things are related to everything else, but close things are more related than distant things" (Tobler 1970). In fact, most pollutant emissions—air pollution, water pollution, soil pollution, noise, and radiation—are more severe near the source, and fade out gradually when moving away from it. Consequently, those living in the vicinity of sources of pollution and hazards are the most vulnerable populations (Taylor 2000). Why? Several reasons can be identified:

- Economic reasons (cheaper housing in contaminated areas becomes the only affordable option for low-income households)
- Educational reasons (low-educated groups ignore their rights of access to information, public participation, and access to justice)
- Cultural reasons (some cultures do not encourage complaining but rather cultivate resignation and acceptance of inequities)
- Institutional reasons (governmental transparency, public consultation practices, and wide access to justice are not universally granted)
- Political reasons (minorities have less lobbying power to influence decision-making) (Davy 1997)

More shockingly, the most vulnerable individuals or groups are also less resilient and unable to take self-protection measures (Cutter 2006). One of the ways to react to locally unwanted land uses (LULUs) (Vanderheiden 2016), such as sources of pollution and major hazard facilities that generate externality costs (like health risks and loss of property value), is by *voting with the feet* (Banzhaf and Walsh 2008). But abandoning the contaminated area and departing elsewhere is only possible when the environmental victims have the economic capacity to resettle. If they do not have enough economic capacity and still decide to abandon the polluted area, they will be submitted to the fragile condition of displaced people (HCR 2001). Consequently, the more economically disadvantaged victims are forced to stay and endure the *slow violence* (Nixon 2011) of living in an unhealthy environment, exposed to *structural pollution* (Cole and Farrell 2006).

The Sustainable Development Paradox

Cases of territorial injustice are not difficult to recognize, but simple binary explanations based on labels as "good or evil" are not valid approaches to territorial injustice.

There may be a few cases where it is easy to pinpoint precisely the "evil" activity that is responsible for the environmental disturbance. For instance, when excess pollution is so evident that cannot be denied; when an activity is functioning illegally; or when the operator is accused of corruption. In such cases, hard measures must be taken, and the operator should be charged for criminal misconduct.

But in many other circumstances it is not obvious that polluting activities can be labeled as being "evil," *harmful* for society, or illegal. In cases of *legal* pollution, or slow cumulative chronic pollution, finding an acceptable solution is not so easy. Therefore, it is not pacific that these activities should be *outlawed*.

There are several possible reasons why it is difficult to identify who is responsible and blame a person or a company for the deterioration of the environment and the loss of health and quality of life incurred by the neighboring population. Here are some usual allegations:

(a) **It is an indisputable social need**. Invoking the character of necessity goods that are provided by the environmental disturbing activities is an argument strong enough to dissuade legal disputes. One example is the case of building a dam in a river as a reservoir for urban water supply or to produce clean, renewable energy. But dams often displace or at least jeopardize the subsistence of fishing communities living along the river, due to the gradual disappearance of migratory fish, unable to spawn upriver (WCD 2010). Another example is managing a sewage treatment plant to treat municipal wastewater and ensure urban sanitation despite the nuisances —odours, noise, vibration, insects, rodents, and other parasites—suffered by the neighbours of the installation.

(b) **It is for the common good**. The imperative reasons of overriding public interest that justify certain activities are also powerful arguments, difficult to be contradicted. It is the case of major hub international airports, large-sized maritime ports, or important railroads. Despite their considerable impacts on the quality of life of the population living nearby, their function in contributing to the development of the country, supporting international businesses and tourism is undeniable and is hard to contest.

(c) **It is a drop in the ocean**. Many pollution cases are not originated from point source pollution. In those cases, the scattered nature of the environmentally harmful activities leads to diffuse pollution and to the dilution of responsibility. Roads with intense traffic or river eutrophication caused by agricultural fertilizers are the perfect illustrative examples. Hundreds or thousands of anonymous individuals carry out activities which do not require previous authorization, public licencing, or register. While the environmental damage (noise, air, water, or soil pollution) generated by each individual is irrelevant,

the aggregate emissions can amount to an intense cumulative pollution.

(d) ***Force majeure***. Extraordinary events or unusual circumstances beyond the control of the operator can originate accidents with strong impacts in the surroundings of the activity. The external events can range from extreme weather conditions (heat waves, hurricanes, or hail) to seismic events, floods, or terrorist attacks. When the extreme events involve classified installations (industrial plants requiring an integrated environmental authorization or establishments where dangerous chemicals are used or stored), the result can be a pollution hotspot triggering a major *domino* effector *cascading* accident (Pescaroli 2018). In normal circumstances, the facility's emissions would be below the legal thresholds. Yet, by virtue of the *force majeure* they can cause a disaster.

Each of these examples illustrates the sustainable development paradox: the environmental nuisance is caused by activities that promote labor, because they create jobs; activities that benefit the consumers, because they place on the market useful products and services; activities that are advantageous for the region and the country, because they attract investment; and activities that are good for the economy, because they boost economic development.

Whoever claims for territorial justice in such cases risks being accused of acting selfishly, in an environmental fundamentalist manner or simply reflecting *nimbyism* (Hager and Haddad 2015). Victims of territorial injustice are often misunderstood while challenging activities that are considered useful for development of the country or region, advantageous for the economy, beneficial for society, (supposedly) favorable to the well-being of citizens, and therefore unquestionable.

One possible solution is *neighborhood dialogue,* a structured and long-term communication process involving face-to-face meetings between companies, neighbors, and the competent authorities. The network for the implementation and enforcement of environmental law (IMPEL), in the European Union, developed a *neighborhood dialogue toolkit* (IMPEL 2007) to resolve environmental conflicts, improve the environmental performance of industrial sites, build trust with local residents, and improve relations with the authorities.

The Role of the Courts

The cases decided by the European Court of Human Rights (ECHR) on the protection of the right to enjoy one's home without environmental interference are clear enough to show that in situations of long-lasting territorial injustice tolerated or unpunished by the public authorities, the courts are the last resort to guarantee the citizen's rights.

In fact, the right to live in a safe environment is more effectively protected using the right to a home as an argument than through the right to property or other human right contained in the 1950 European Convention on Human Rights and Fundamental Freedoms. In the words of the court, "naturally, severe environmental pollution may affect individuals' well-being and prevent them from enjoying their homes in such a way as to affect their private and family life adversely, without, however, seriously endangering their health" (case of Lopez Ostra v. Spain 1994).

Therefore, sanctioning unlawful "interferences" with the right to enjoy one's home, caused by extreme pollution, seems to be effective tool for the prevention of territorial injustice.

In the interpretation of the ECHR, the public authorities' unlawful interference can happen in two ways. One, when the detrimental environmental effects are the result of activities (such as public works) executed directly by the state or when the polluting or hazardous facility (an industrial plant or a dam) is publicly owned. Two, when the environmental damage or hazard is caused by private activities, carried out by individuals or companies in privately owned installations, but the public authorities are nevertheless responsible for regulating, supervising, and sanctioning such activities. In the first case, the State has the duty to refrain from activities likely to cause environmental damage (pollution or deterioration) to the citizens, or in other words, to stop

environmental interference.In the second case, the state has the duty to actively control, inspect, and punish polluting or hazardous private activities that impose excessive burdens on the surrounding population. If the state does not control and punish, that is passive interference.

This is the reason why strong institutions, as required by sustainable development goal No. 16, are so important to ensure territorial justice.

Yet, judicial protection often comes too late and is insufficient to ensure effective human rights' protection.

Insufficient Judicial Protection

Almost 30 year have passed by since the first case where the European Court of Human Rights declared the violation of the right to have one's home protected against illegal interference, the case of Lopez Ostra v. Spain, in 1994.

Hundreds of complaints before the Human Rights Court in Strasbourg show that in many cases neither the timing nor the scope of the court decisions are enough to grant an effective, timely, and full judicial protection to all the victims of territorial injustice.

Before going to the ECHR, obtaining a final judicial decision by a national supreme court on cases of territorial injustice requires going through all the judicial instances of the national courts. This can take decades. The numbers behind the decisions of the European Court of Human Rights recognizing violations of the right to enjoy one's home are impressive. Regarding industrial activities and particularly steel industry, in the case of Fadeyeva versus Russia, the industry had been working since the 1960s and the decision of the European Court was adopted in 2005. In the case of Băcilă versus Romania, also on steel industry, the court delivered the judgement in 2010 but the plant had been in operation since the 1930s. In the case of Cordella versus Italy, the steel industry was active since 1965, and the court deliberated in 2019. Other cases concerning different sources of long-lasting pollution were also judged by the European Court of Human Rights: in the case of Moreno Gomez versus Spain, on noise pollution from night clubs and other night-time leisure activities, the court decided in 2004 but the first bars and clubs had obtained their licenses in 1974. In the case of Giacomelli versus Italy, the noxious activity was irregular waste management which was going on since 1950 and the court decided in 2006. In the case of Di Sarno versus Italy, Naples region declared a state of emergency due to waste management difficulties which lasted for 15 years, between 1994 and 2009. The European Court issued the final decision in 2012.

Also, the subjective scope of the judicial decisions is not as ambitious as it would be desirable. In other words, the victims benefiting from the condemnation of the state by the ECHR are limited to the applicants. This is also very insufficient as the following numbers demonstrate. In case of Kolyadenko versus Russia, decided in 2012, there were 6 applicants and more than 5000 residents in Vladivostok whose homes were in danger when the state-owned enterprise decided to suddenly open the gates of a water reservoir, after a period of exceptionally heavy rains, causing sudden flooding and endangering thousands of homes. In the case of Fadeyeva versus Russia, mentioned before, there was one single applicant while 60,000 workers had their residence within the factory's "health protection zone," the over contaminated surrounding area. In the case of Cordella versus Italy, already mentioned, there were 180 applicants and 200,000 inhabitants living in an area classified by the public authorities as "exposed to high environmental risk."

These examples serve to demonstrate the need for faster and more powerful legal mechanisms to guarantee the adequate protection of the human rights of the victims by preventing at least all foreseeable damages and predictable risks.

International and Supranational Legal Instruments to Prevent Territorial Injustice

Several environmental and planning law instruments can be used to prevent territorial injustice. The objective is to adopt anticipatory strategies and approaches (Rechtschaffen 2010), imposing procedural and substantial obligations based on

fundamental environmental principles (Aragão 2018) such as the prevention principle (Sadeleer 2002), and the correction at the source principle (Krämer 2018) to achieve the desired level of protection (Squintani 2019). Taking international environmental conventions and European Union law as an illustration, here are eight examples:

- Environmental impact assessment, or EIA, is internationally regulated by the Convention on Environmental Impact Assessment in a Transboundary Context, the 1991 Espoo Convention. In the European Union it is the 2011 Directive on the assessment of the effects of certain public and private projects on the environment. The EIA is used to prevent, reduce, or offset the likely significant adverse effects on the environment caused by different projects such as construction works or any interventions in the natural surroundings and landscape. These projects range from agriculture, silviculture and aquaculture, extraction of mineral resources, manufacturing industry (energy, metal, chemical, food, textile, leather, wood, paper, or rubber), infrastructure projects (urban development, railways, airfields, roads, harbors, dams, dykes, pipelines, and aqueducts), tourism and leisure (ski runs, marinas, hotel complexes, and theme parks), solid waste management projects, waste water treatment plants, or sludge deposition sites.
- Strategic environmental assessment, or SEA, is managed internationally by the 2003 Kyiv Protocol on Strategic Environmental Assessment to the Espoo Convention. In the EU it corresponds to the 2001 Directive on the assessment of the effects of certain plans and programs on the environment. EIA and SEA have similar aims but different objectives: SEA aims at preventing, reducing, or offsetting the likely significant adverse effects on the environment of plans and programs, and where appropriate policies and legislation. The plans and programs requiring strategic assessment are those adopted for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use, and which set the framework for future development consent of projects. SEA comes before EIA because the projects are more concrete then the policies, plans, or programs which serve as framework for projects.
- The international legal context of the authorization of industrial establishments using dangerous substances is the 1992 Helsinki Convention on the Transboundary Effects of Industrial Accidents. In the EU it is regulated by the 2012 Directive on the control of major-accident hazards. The industrial pollution regime has rules for the prevention, mitigation, and restoration of accidents involving hazardous chemicals, with a view to limiting of consequences for human health and the environment, thus ensuring a high level of protection. Prevention measures start with land use planning policies to maintain appropriate safety distances between industrial establishments and residential areas and between the industrial establishments themselves, in order to prevent domino effects and goes on with operational rules on the role and responsibility of management.
- Integrated environmental permitting corresponds to the 1979 Convention on Long-Range Transboundary Air Pollution. In the EU it is regulated by the 2010 Directive on industrial emissions. This regime imposes the use of best available techniques, and whenever necessary additional measures, to respect the desirable environmental quality standards. The objective of environmental permitting is to prevent or, where that is not practicable, to reduce emissions into air, water, and land and prevent the generation of waste, in order to achieve a high level of protection of the environment taken as a whole. As in the two previous instruments, transparency and public participation in the decision-making processes are the rule to ensure that the general public is involved, preventing social conflicts, strengthening the credibility of private companies, and increasing trust in public policies.
- The environmental management and auditing scheme is governed by the 2018 EMAS regulation, in the EU. It is used to promote

continuous improvements in the environmental performance of organizations by the establishment and implementation of environmental management systems and the provision of information on environmental performance. Being a voluntary management instrument, only the organizations that are confident enough accept to undergo a systematic, documented, periodic, and objective evaluation of the organization's management system and environmental performance conducted by an auditor. Yet, the business benefits (European Commission 2011) of obtaining an EMAS certification can outweigh the effort. First, there are internal gains, such as resource efficiency, cost savings, enhanced employee motivation, and greater team building capacity. Secondly, there are external advantages associated with the fact that EMAS label can be used as a marketing tool and increase business opportunities in markets that prioritize green production processes. Additionally, it can provide access to public incentives and public contracts, improve the relations with the customers, the local community, and regulators, reducing the risk of fines related to breaches of environmental legislation.

- The environmental liability regime created in 2004 by the European Directive on environmental liability with regard to the prevention and remedying of environmental damage establishes a legal framework based on the prevention and *polluter-pays* principle (Sadeleer 2002) to prevent and remedy environmental damage. Where environmental damage has not yet occurred but there is an imminent threat of such damage occurring, the operator must, without delay, take the necessary preventive measures. Where environmental damage has already occurred, the operator shall take, without delay, all practicable steps to immediately control, contain, remove, or manage the damage factors in order to limit or to prevent further environmental damage and consequent adverse effects on human health. The costs for the preventive and remedial actions shall be borne by the operator, directly or through insurance or other financial security.
- Corporate social responsibility launched in the EU by the 2014 EU Directive on disclosure of nonfinancial information corresponds to the Global Compact (https://www.unglobalcompact.org/) at the UN level. Large companies and groups associated with this regime have the obligation to prepare every year nonfinancial statements relating to environmental, social, and employee matters, as well as respect for human rights. The annual statement shall include a description of the environmental, social, and labor policies pursued by the undertaking, including the outcome of those policies, the principal risks related to those matters, and relevant key performance indicators. The expected result of the statement is to promote sustainable development through accountable, transparent, and responsible business behavior by undertakings in all sectors.
- The three pillars of environmental democracy, also called procedural environmental rights (Jendrośka and Bar 2017), have been crystallized internationally by the 1998 Aarhus Convention and the 2018 Escazu Agreement on Access to Information, Public Participation, and Access to Justice in Environmental Matters. In the EU it is the 2003 Directives on public access to environmental information and on public participation and in the 2017 Notice on Access to Justice in Environmental Matters (EC – European Commission 2017).

Environmental information covers information in any form, on the state of the environment, on factors, measures, or activities affecting or likely to affect the environment or designed to protect it, on cost–benefit and economic analyses used within the framework of such measures or activities and also information on the state of human health and safety, including the contamination of the food chain, conditions of human life, cultural sites, and built structures in as much as they are, or may be, affected by any of those matters.

The essential assumption is that increased public access to environmental information contributes to a greater awareness of environmental matters, a free exchange of views, and more effective participation by the public in environmental decision-making. On the other hand, improved public participation in decision-making and access to justice enhances the quality and the implementation of decisions, and, eventually, contributes to a better environment.

But besides effective legal instruments, technological innovation—such as geospatial intelligence and data visualization tools—is also important to prevent the undesired geographic coexistence between social and environmental inequities.

Geospatial Knowledge for Territorial Justice

The global use of new technologies for sustainable development was expressly recognized in 2018, when the General Assembly of the UN adopted a resolution declaring that the economic and social council should focus on "future trends and scenarios related to the (. . .) contribution of new technologies, in the economic, social and environmental areas on the realization of the Sustainable Development Goals" (UN HRC 2018b).

> In 2013, the UN secretary-general appointed a high-level panel of experts to advise on the post-2015 agenda. In the view of the panel: "better data and statistics will help governments track progress and make sure their decisions are evidence-based; they can also strengthen accountability (. . .). A true data revolution would draw on existing and new sources of data to fully integrate statistics into decision making, promote open access to, and use of, data and ensure increased support for statistical system (. . .) data gathered will need to be disaggregated by gender, geography, income, disability, and other categories, to make sure that no group is being left behind" (HLP 2013).

The agreement on Access to Information, Public Participation, and Access to Justice in Environmental Matters in Latin America and the Caribbean Region (Escazu 2018) proclaims that "each Party shall guarantee that environmental information systems are duly organized, accessible to all persons and made progressively available through information technology and georeferenced media, where appropriate" (article 6 No.3).

The UN Human Rights Council calls upon states "to collect disaggregated data on the effects of environmental harm, including the loss of biodiversity and the decline of ecosystem services, on persons in vulnerable situations" (UN HRC 2017).

When social and environmental data are georeferenced, processed, interpreted, and presented in maps, they can help identify information gaps and visualize (Carter and Herold 2019) sustainable development indicators (Moreno-Pires 2014) and territorial injustice much more clearly than using graphics or tables. Mapping tools that display layers of georeferenced statistical information (Jankowska and Pawełczyk 2014) on social and environmental datasets help visualize (Krieger et al. 2012) and understand territorial injustice. Advanced technologies, such as satellite imagery and geospatial intelligence, are already being used in the context of the Food and Agricultural Organization of the United Nations to support decision-making and to promote multidisciplinary approaches to sustainable development (FAO 2006).

There are concrete examples of such tools being developed for visualization of territorial injustice.

In the European Union, the Directive establishing an infrastructure for spatial information launched in 2007 the construction of a European wide network of interoperable spatialized data, held by the member states, on subjects of major importance for citizens and for decision-makers. The *spatial data themes*

correspond to different layers of information that, when put together, show a clear picture of territorial justice. The *Inspire* geoportal (https://inspire-geoportal.ec.europa.eu/) will disclose large amounts of information such as the availability of essential services (sewage, waste management, energy and water supply, civil protection sites, schools, and hospitals), the quality of the environment (air pollution, chemicals, depletion of the ozone layer, and noise), zones prone to natural hazards (floods, landslides and subsidence, avalanches, forest fires, earthquakes, or volcanic eruptions), and finally on the geographical distribution of pathologies like allergies, cancers, respiratory diseases, decline of fertility or epidemics, fatigue, or stress.

In the USA, another good example is the Environmental Justice Screening and Mapping Tool (https://ejscreen.epa.gov/mapper/). Developed by the Environmental Protection Agency, the EJSCREEN is available online since 2015 and provides environmental and demographic indicators.

Some of the environmental indicators are: lifetime cancer risk from inhalation of air toxics, air toxics respiratory hazard, particulate matter in air, ozone concentration, traffic proximity and volume, percent of housing units built pre-1960 (indicator of potential lead paint exposure), potential chemical accident facilities within 5 km, hazardous waste facilities within 5 km, and wastewater discharge (considering stream proximity and toxic concentration).

The demographic indicators are: the percent of population where the household income is less than or equal to twice the federal "poverty level," the percent of individuals who list their racial status as a race other than white alone and/or list their ethnicity as Hispanic or Latino, percent of people age 25 or older in a block group whose education is short of a high school diploma, percent of people living in linguistically isolated households (speak a non-English language and also speak English less than "very well"), and percent of people under the age of 5 and over the age of 64.

Lastly, another example is the Washington Environmental Health Disparities Map (https://deohs.washington.edu/washington-environmental-health-disparities-map-project) which is the result of a community–academic–government partnership in the State of Washington, USA (Min et al. 2019) and went public in December of 2018.

The map shows the same environmental indicators as EJSCREEN and demographic indicators of sensitive populations (death from cardiovascular disease and low birth weight), and low socioeconomic status (limited English, no high school diploma, poverty, race/people of color, transportation expense, unaffordable housing, and unemployed).

The examples provided show that territorial justice is much more than a philosophical concept. It is an operational concept (Soja 2010) which can be implemented using decision support tools for evidence-based public policies.

Strong Institutions for Territorial Justice

The activities that cause environmental deterioration turn neighbors into victims, whose living conditions are lost, whose physical and psychological health is impaired, whose quality of life fades, and whose dignity rights are denied (McCrudden 2014).

Yet, according to the Aarhus Convention "Every person has the right to live in an environment adequate to his or her health and well-being, and the duty, both individually and in association with others, to protect and improve the environment for the benefit of present and future generations."

Thus, a new socio-environmental paradigm, which comes with new legal requirements for territorial justice, must prevail. Just like the slaves of the colonial period and the working class during the industrial revolution, the *new victims* of development are the vulnerable population overexposed to unhealthy environmental conditions.

Territorial justice depends on strong institutions, capable of using legal instruments and advanced technologies to deliver territorial justice through transformative public policies.

Territorial injustice is associated with various forms of unfairness:

- It is unfair to tolerate territorial injustice when it could have been foreseen and preventively avoided.
- It is unfair to leave avoidable environmental harm unpunished.
- It is unfair to endure environmental damage when ecological restoration of ecosystems is possible, restoring social peace as well.
- It is unfair to allow negotiations between the offender and the highly vulnerable victims that lead to nonequitable outcomes.
- It is unfair to take decisions without hearing the victim's voices and considering their opinions.

To counteract territorial injustice, institutions are required to act, predicting risks, punishing infringements, reconciling parties, mediating, or arbitrating disputes, redistributing wealth, dialoguing with stakeholders.

Strong institutions must use legal instruments to effectively apply *preventive justice* avoiding, from the beginning, the territorial overlap of vulnerable populations and dangerous or environmental unhealthy installations.

Strong institutions impose *retributive justice* towards those who are responsible for the malfunctioning of activities that were supposed to function properly.

Strong institutions guarantee *restorative justice* for the ecosystems, and for humans, when environmental damage eventually occurs, with or without fault of the economic operator.

Strong institutions ensure *commutative justice*, supervising direct negotiations between the operator and the victims of territorial injustice.

Strong institutions provide *distributive justice*, using public money and wider access to public services to compensate the victims of territorial injustice.

Strong institutions deliver *procedural justice* by instituting the necessary conditions for public participation to happen, to be considered in public decision-making and to influence public policies.

In an ideal society, there should be no serious social inequalities. In an ideal economy, there should be no severe environmental pollution nor hazardous facilities. In the real world, while there is no paradigm shift, territorial injustice should at least be prevented.

Conclusion

Striving for territorial justice requires strong institutions, awareness of territorial inequities, and capable of promoting peaceful and inclusive societies for sustainable development, as advocated by sustainable development Goal 16: "the promotion of peaceful and inclusive societies for sustainable development, the provision of access to justice for all, and building effective, accountable institutions at all levels." Yet, working for territorial justice will contribute to the progress towards the first indicator for SDG 16: "significantly reduce all forms of violence everywhere." Why? Because territorial injustice is a form of slow violence. Besides, preventing territorial injustice is fighting social exclusion and mitigating social conflicts while respecting the rule of law.

Cross-References

- ▶ Global Governance, Multiactor Cooperation, and Civil Society
- ▶ Local Governance
- ▶ Restorative Justice

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