

## A CIVIC Duty for System Change

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### Short Communication

People who live near portions of the Santiago River in the state of Jalisco, Mexico are subject to levels of water and air pollution that corrode the paint off of metal railings and pit the metal underneath in short order. A child who chased a soccer ball into this river died the very next day due to the toxins he was exposed to. Cancer, kidney failure, and other diseases are much higher than background rates in these areas. Ongoing failures to effectively address this environmental disaster call for fundamental system change in how we go about implementing and paying for the needed clean up. At present the system is paralyzed by the failure of governmental environmental policy.

At the present time, all levels of government are paralyzed in the face of the environmental emergency, although the area has been officially declared an “Environmental Hell” by the country’s environmental authorities. Corruption and the prevalence of private interests over the common good have generated the dynamics of overexploitation of the resource and its contamination.

What we need is a mechanism that will incentivize procedures to reduce pollution in such a way that the polluters themselves have incentives to clean up their own act and incentivize others to do so too, a mechanism that could be funded by a *Collective Industrial Victim Impact Compensation Cost Duty (CIVIC Duty)*.

We propose a [CIVIC duty as] a ‘polluters pay’ mechanism that eliminates the historical patterns of legal battles to assign individual corporate rather than collective industrial responsibility. The traditional Pigouvian Tax is a ‘polluter pays’ tax – the location of the ‘s’ being very important. A CIVIC duty must be levied on all of the industries along the river immediately. This financial levy or tax should be sufficiently painful to incentivize behavior change of the polluters that results in positive changes in the environmental quality of the river. The beauty of a CIVIC Duty is that as the river’s environmental qualities improve the tax goes down. If the river gets worse the tax goes up.

A 2019 New York Times article described the area as a ‘Slow-Motion Chernobyl’ that the Mexican government lacked the capacity to address (Dec 30, 2019 NYTimes). While there are international environmental agreements between the U.S. and Mexico that are ostensibly aimed at improving environmental monitoring and enforcement in Mexico (Tratado entre México, Estados Unidos y Canadá [T-MEC] art. 24.4; )<sup>1</sup>, decades of lax environmental regulations, minimal monitoring and enforcement, and cheaper land and labor are the very reason many American companies have relocated to this area of Mexico. (IBM, Honda, Hershey’s, Hella, Urrea, Grupo Recal, Vimifos, ZF, among others, generating millions of dollars

in profits per year)<sup>2</sup>.

This area is an industrial hub that provides jobs and money for many people—mostly people who do not have to live in the most polluted areas. The areas along the Rio Santiago around El Salto, Jalisco have been described as a ‘sacrifice zone’. The children of those who profit from this environmental disaster are not the ones being sacrificed. When a government or corporation has no desire whatsoever to change their behavior relative to an acknowledged problem the best way to do nothing is to do another study. Local environmental activists in El Salto (e.g. El Salto de Vida <https://unsaltodevida.wordpress.com/>) are tired of studies and legal runarounds in which corporate lawyers and government officials engage in seemingly eternal finger pointing and blame shifting while their kidneys fail and their children die. A [CIVIC Duty] is a solution that can work. We see the primary obstacle to its implementation is political will on the part of the government at its different levels (federal, state and municipal) of Mexico and also the unconsciousness of citizens and businessmen.

A team of local citizens, community activists, and academics have been charged with developing a rational and effective strategy for sustainable land management of this area including the cleaning of the river. The effort was funded by CONACYT (Mexico’s equivalent of the National Science Foundation). The project is titled: *The Hydro-Ecological Regeneration and Community Reappropriation of the Santiago River Basin*. A CIVIC Duty will be proposed as a mechanism that produces appropriate incentives for positive change. That tax goes up when environmental quality declines and the tax goes down when environmental quality improves. Designing, establishing, and protecting an ongoing monitoring program that is sufficiently complete in scope, geographic coverage, that is trusted by the community and the polluting industries should be the first priority of this policy. Developing a robust monitoring station of this nature is a multi-faceted problem with scientific, social, and political elements. Monitoring stations must be located in a sufficient number of appropriate locations to characterize the nature of the problem. In addition, these stations must be sufficiently safeguarded so as not to be tampered with, vandalized, or stolen. This sort of monitoring program should establish ‘targets’ for allowable/tolerable quantities of the 1,050 pollutants that have been identified to exist in the Rio Santiago. All of these metrics should be weighted/merged into a single ‘Watershed Health Index’ that goes to zero at some ‘end state’ target (e.g. when it is safe to swim and eat fish from the river).

The CIVIC Duty fee must be sufficiently high to incentivize positive change. It is difficult and contentious to put a price on the lives shortened because of these impacts but some ‘avoided costs’

should be estimated for a clean river. A river that people can swim in and catch and eat fish from is our goal. Some ‘cost’ difference between what the river is and what it could be should be estimated. This should include health care costs (dialysis, kidney transplants, cancer treatment, etc.), it should also include payments to the families of people whose lives are cut short, in addition people should be paid for the lost cultural services provided by the river (swimming, recreation, etc.). There are also Cleanup costs, riparian restoration costs, etc. The challenge will be to get the people in power to levy a CIVIC Duty (tax or fee) on all polluters of the river.

A CIVIC Duty is a fee that roughly represents the annual costs mentioned above distributed among all the industries that pollute the river based on total revenue or total employment or some other proxy of ‘size’. We cannot be sent down the complex and uncertain rabbit hole of trying to figure out which company is responsible for what fraction of every waste stream. They are all in this together and they will all have access to the data and models obtained from the monitoring system. This will incentivize the individual companies to police one another because they will be paying for the bad behavior of other companies. This should eliminate the incentive for the big companies to pay lawyers to make ‘Those little guys are doing it’ and ‘We cleaned up our act’ arguments. The larger companies often buy the products from smaller local enterprises in essence ‘off sourcing’ the pollution intensive elements of their production.

The CIVIC duty fee will NOT go into the general fund of the city, state, or national government; rather, it will be used by and for the community. A tentative suggestion for the distribution of CIVIC Duty revenue is provided here: 30% to pay for health care and other lost benefits to individuals IN the community; 30% to pay for public good projects IN the community (e.g. schools, libraries, cyber infrastructure - free internet access, and perhaps even scholarships for students to study community organizing etc.); 20% as grants to be provided back to the Industries to develop pollution reducing technology (The community can evaluate and administer these grants to monitor effectiveness); 10% for long term expenses that may exist even after the pollution targets are met and the tax is no longer being collected; and 10% to the tax collecting authority for administration and maintenance of the monitoring system.

A CIVIC Duty is a ‘polluters pay’ mechanism to bring about system change. We will leave arguments as to whether or not this is a Pigouvian tax to others. It strikes us as significantly different in that it obviates the need to quantify which enterprises are polluting how much. The distribution of the tax is simply based on a proportion of the revenues of the known polluters of the river. Our current system does not address environmental degradation

<sup>1</sup>Secretaría de Relaciones Exteriores, “Tratados celebrados por México”, disponible en ; Secretaría de Gobernación, Guía de tratados promulgados y otros instrumentos internacionales vigentes suscritos por México, Segob, México, 2003.

<sup>2</sup>The 2019 economic censuses, recorded that, in the municipality of El Salto, the three most important subsectors in the generation of gross census value added were the Manufacture of transport equipment; Wholesale trade of agricultural and forestry raw materials, for industry, and waste materials; and the Food industry, which together generated 69.6% of the total gross census value added recorded in 2019 in the municipality (IIEG, 2020).

effectively partly because it is dominated by litigation and the costs of litigation are measured in time, money, human suffering, and degraded environments. A CIVIC Duty implemented in tandem with a scientifically valid and trusted monitoring system allows for price signals to be provided by empirical science rather than decrees from courtrooms. In essence this approach is analogous to a carbon tax at a regional scale. A sufficiently high carbon tax that dropped as global CO<sub>2</sub> concentration in the atmosphere dropped could be regarded as a global CIVIC Duty if the funds went to all people rather than governments.

For the success of the strategy, it is necessary to design an innovative and heterodox intergovernmental-citizen management

model (at the federal, state and municipal levels), whose attributions are not only the generation of information on the CIVIC index, but also the administration of the resources generated and the establishment of incentives for the government and companies. This can be done through public-private tradeoffs derived from the generation of ecosystem services created by the environmental recovery. The key is to offer economic policy options that manifest the necessary incentives for the transformation of the productive vocation of industry and agriculture towards environmentally friendly methods. The central idea is that the local actors themselves become incentivized to actively participate in recovering the ecosystem balance of the hydrographic basin.