Contribution to the identification of potentially relevant point source categories

of mercury releases in Costa Rica

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Activities: Preparation of this contribution involved the following steps. 1) literature revision, including current inventories, report on priority areas for mercury control, and legislation. 2) Meeting with the technical representative of the Ministry of Environment in charge of the Minamata Convention at a governmental level, and 3) identification of potentially relevant point source categories, as requested by the Group of Technical Experts on Guidance in relation to Mercury Releases.

Identified potentially relevant point source categories: The following categories are submitted as an initial contribution for further discussion in the Technical Group.

Potentially relevant point source categories	Available information	Observations for further discussion
Septic tanks and wastewater treatment plants.	No available information.	Costa Rica has a wide use of domestic septic tanks and until recently, an interconnected Metropolitan wastewater treatment plant in the Capital. Industry usually dispose treated effluents. However, mercury concentrations have not been monitored yet in either setting.
Thermal electric generation plants.	Import data for thermal power generation.	Electric generation is mainly hydric, thermal generation with coal combustion is not practiced, but other fuels are used. Although the main impact might be to the quality of air, mercury releases to water and soil, have not been evaluated in this matter.
Storage of mercury containing residues.	No available information.	Restrictions imposed by the Basel Convention lead to the storage of unused mercury and mercury containing residues in different sectors. Releases due to unsafe

		storage or potential spills are risk factors that should be evaluated.
Illegal activities, such as illegal artisanal gold mining, or use of mercury containing pesticides.	No available information.	The country is dealing with gold extraction by amalgamation, and there has been confiscation of mercury. There is also an illegal use of forbidden pesticides that have heavy metals.

Complementarily, Costa Rica lacks legislation to regulate mercury releases. The effort has been oriented to the preparation of inventories, control of emissions and residues´management. The central government has been a leader and promoter of a very important and significant change, which is expected to offer soon additional regulations in control of releases under realistic standards to the actual capacity.

Revised literature and communications:

1. Julio César Murillo-Hernández, Jorge Herrera-Murillo, José Pablo Sibaja-Brenes. **Mercury emissions inventory for 2014 in Costa Rica using the PNUMA Toolkit to a N2 level.** Revista de Ciencias Ambientales (Trop J Environ Sci). (Enero-Junio, 2018). EISSN: 2215-3896. Vol 52(1): 1-x.
2. Dirección de Gestión de Calidad Ambiental, DIGECA. **Mercurio en Areas Prioritarias de Costa Rica.** Ministerio de Ambiente y Energía. San José, Costa Rica. 2017. http://www.digeca.go.cr/sites/default/files/documentos/6_mercurio_en_areas_prioritarias_de_costa_rica.pdf
3. Dirección de Gestión de Calidad Ambiental, DIGECA. **Marco Jurídico Institucional y Político.** Ministerio de Ambiente y Energía. San José, Costa Rica. 2017. http://www.digeca.go.cr/sites/default/files/documentos/3_marco_juridico_institucional_y_politico.pdf
4. Solano, María del Mar. Focal point Minamata Convention, Dirección de Gestión de Calidad Ambiental, DIGECA. Ministry of Environment. Costa Rica. Personal communication, 2019.