

# MINAMATA INITIAL ASSESSMENTS (MIAs) AN IMPORTANT STEPPING-STONE

FACILITATING CAPACITY-BUILDING WITH TECHNICAL ASSISTANCE AND  
TECHNOLOGY TRANSFER FOR MANAGING MERCURY IN THE CARIBBEAN  
INCEPTION WORKSHOP

27 JULY 2021

# **Minamata Initial Assessment (MIA)**


Under the Minamata Convention on Mercury, it is recognized that the provision of financial support to developing countries will improve the effective implementation of the Convention's obligations.

A Minamata Initial Assessment is an enabling activity which assists countries in determining the requirements and needs for the ratification and/or implementation of the Minamata Convention.


Developed as a Global Environment Facility (GEF) enabling activity.



# BENEFITS OF MIAs




Provides a starting point for addressing the national mercury situation in these countries



Increases data availability and allows comparisons on a national, regional and global scale



Gives countries confidence to ratify and/or implement to the Minamata Convention



Strengthens chemical management in the region



Opportunities for future work towards protecting health and environment in the Caribbean

# **The BCRC-Caribbean**

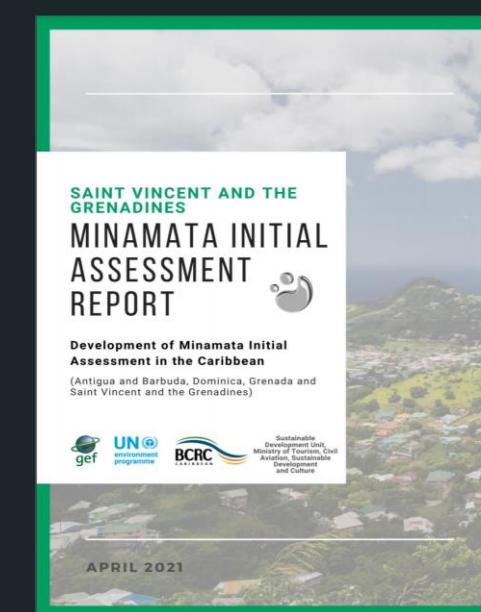
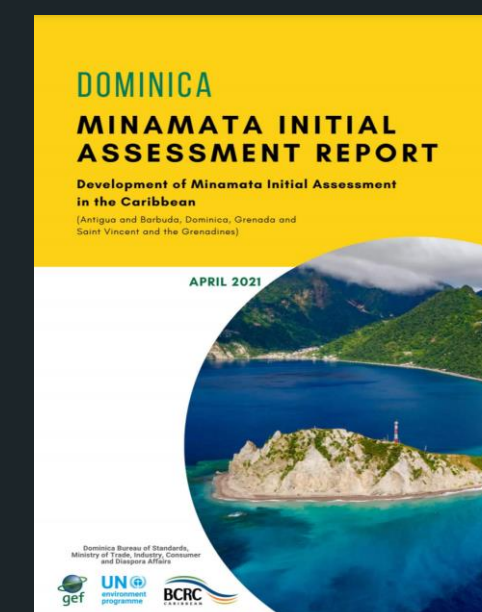
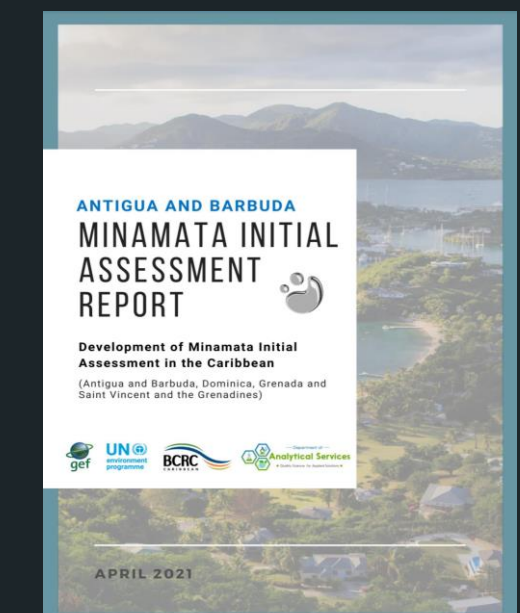
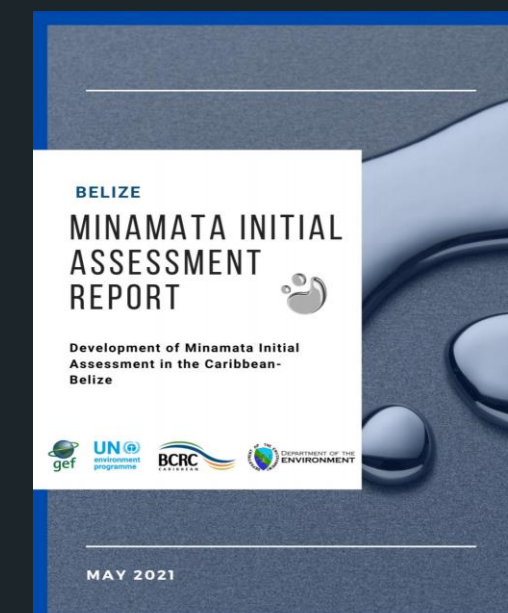
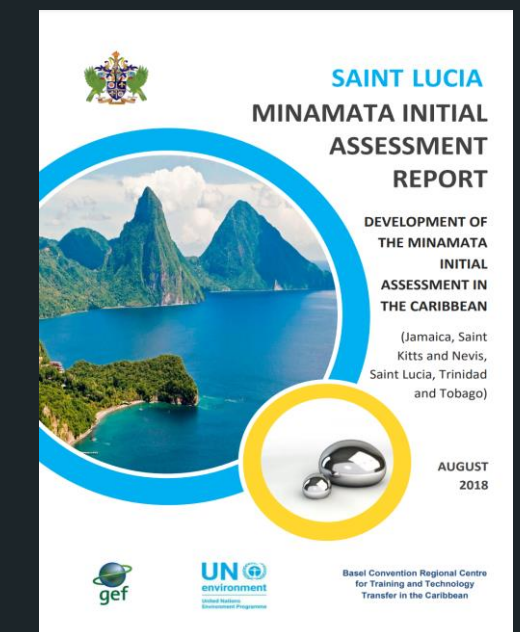
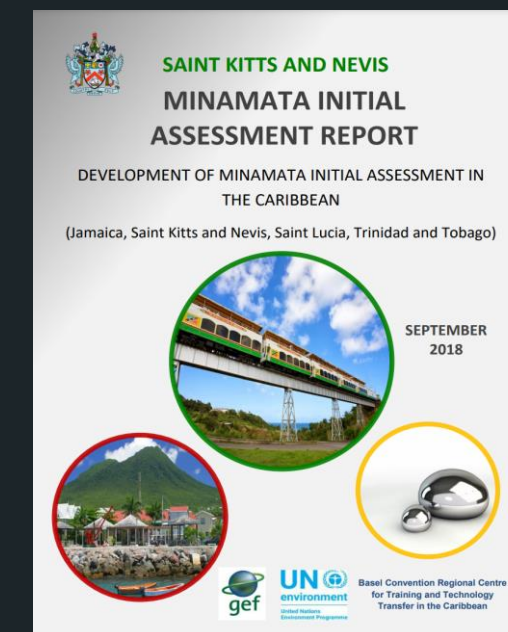
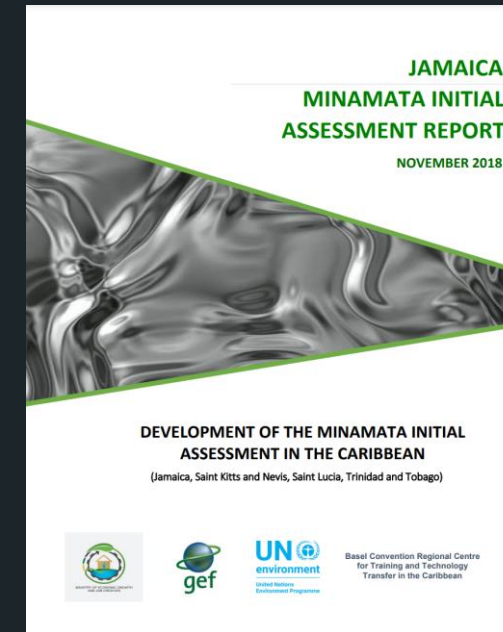
in our role to serve the Caribbean region in meeting the obligations of the Minamata Convention on Mercury has acted as the Executing Agency/ Co-Executing Agency in 10 Caribbean countries for the completion of their MIAs.

UNEP has acted as the Implementing Agency for these MIA Projects.

The Biodiversity Research Institute (BRI) was recruited as the Technical Experts for 9 of the MIAs conducted and built capacity for the BCRC-Caribbean to act as the Technical Expert in the 10<sup>th</sup> MIA.

- Jamaica (2018)
- Saint Kitts and Nevis (2018)
- Saint Lucia (2018)
- Trinidad and Tobago (2018)
- Belize (2021)
- Antigua and Barbuda (2021)
- Dominica (2021)
- Saint Vincent and the Grenadines (2021-ongoing)
- Grenada (ongoing)
- The Bahamas (ongoing)

NOTE: In the region, MIAs for Dominican Republic, Guyana and Suriname were conducted under other executing agencies and Cuba's is ongoing.



# MIA OUTCOMES

**INVENTORY OF  
MERCURY RELEASES**



**INSTITUTIONAL  
AND REGULATORY  
ANALYSIS**



**DEVELOPMENT OF A  
STRATEGY TO IDENTIFY  
MERCURY CONTAMINATED  
SITES AND VULNERABLE  
POPULATIONS**



**DEVELOPMENT OF  
COMMUNICATIONS  
STRATEGY**



# MIA Priorities for Action

Through MIA Projects, a baseline for furthering mercury management priorities was identified and funding opportunities were made available and more accessible:

For example, the following projects were executed in the region based on MIA outputs:

- Fish Mercury Biomonitoring in the Caribbean Region
- Mercury Monitoring in Women of Child-Bearing Age from SIDS around the world (Hair sampling)
- Identification of Feasible Strategies for the Environmentally Sound Disposal of Spent Lighting Products in the Caribbean

# Some Related MIA Outputs

In addition to the MIA Reports, other outputs were developed under the MIA or related projects to further promote the need for building capacity for mercury management.

These included:  
 Assessment Reports  
 Technical Briefing Documents  
 Awareness Raising Material

### Global Health Trade-off for Mercury and Omega-3 in Seafood

Blue highlights - seafood important for the Caribbean region. Blue underline - seafood that has been sampled in Antigua and Barbuda.

Milligrams of Omega-3 Fatty Acids/4 Ounces of Cooked Fish →

MEAL FREQUENCY RECOMMENDATIONS	<500 mg	500-1,000 mg	1,000-2,000 mg	> 2,000 mg
Unrestricted meals (< 0.05 µg/g)	Catfish (temperate waters), Clams, Crab* (most species), Croaker, Haddock, Parrotfish, Scallops, Shrimp, Tilapia,* Cockle	Blue Mussels,* Pink Salmon, Sockeye Salmon	Coho Salmon, Oysters	Sardines, Shad
1-2 meals per week (0.05-0.22 µg/g)	Butterfish, Atlantic and Pacific Cod, Grenadier, Hake, Lionfish, Lobster,* Red Fish, Scud, Snapper, Sole	Atlantic Pollock, Bonito Mahi Mahi, Mullet, Squid, Skipjack Tuna, (light canned tuna)	Atlantic Horse Mackerel, Atlantic and Pacific Mackerel, Chinook Salmon,* European Sea Bass, Rays, Skates, Trout	Anchovies,* Atlantic Salmon, Herring
1 meal per month (0.22-0.95 µg/g)	Catfish (tropical waters), Flounder, Grouper, Orange Roughy, Sea bream	Amberjack, Barracuda, Bigeye Tuna, Bluefish, Croaker, Halibut, Jack, Tilefish, Trevally, Yellowfin Tuna, Wahoo, (white canned tuna)	Albacore Tuna,* Atlantic Bluefin Tuna, Blackfin Tuna, Chilean Sea Bass, Spanish Mackerel, (white canned tuna)	
No consumption (> 0.95 µg/g)	King Mackerel	Marlin, Sailfish	Dogfish, Shark, and Mackerel Sharks; Pacific Bluefin Tuna, Swordfish*	

Healthier Choices (top right)

Riskier Choices (bottom left)

Mercury concentrations vary widely across shark species. To learn more, visit: [www.briloan.org/igcenter](http://www.briloan.org/igcenter)

Data Sources: BRI's Global Biotic Mercury Synthesis (GBMS) Database; U.S. Environmental Protection Agency; U.S. Food and Drug Administration \*Pictured White canned tuna can be albacore or yellowfin.

## Mercury in your diet

**MERCURY, A TOXIC ELEMENT** that can cause damage to our nervous system, liver and kidneys in addition to a number of varying symptoms.

Fish is a healthy source of protein, however mercury can be found in some species that we consume.

Mercury levels: Larger species of fish may contain higher levels of mercury. Pregnant women should not consume too much of these species of fish because it can affect the baby's developing brain. You can limit your exposure to mercury by adding other sources of protein to your diet.

WATCH THE FULL VIDEO and to find out more, visit [www.bcrc-caribbean.org](http://www.bcrc-caribbean.org)

Facebook - Basel Convention Regional Centre - Caribbean  
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Let's move to a Mercury Free Society!

BCRC, UN Environment Programme, GEF

## Monitoring Mercury-added Products in the Caribbean Region

### SKIN LIGHTENING CREAMS AND COSMETICS

**Quick Notes**

- The Minamata Convention on Mercury requires Parties to phase out the manufacture, import or export of skin lightening creams and cosmetics > 1 ppm Hg by 2020.
- Many countries, such as the US and those in the EU, are working toward mercury-free alternatives.
- Biodiversity Research Institute (BRI) partnered with BCRC-Caribbean to test skin lightening creams sold in the Caribbean for mercury, in order to monitor human exposure to the toxic element from the use of these products.

**Mercury in Skin Lightening Creams and Cosmetics**  
 Mercury (Hg) is an ingredient used in some skin lightening or anti-aging soaps and creams because mercury salts inhibit the formation of melanin, the pigment that gives human skin, hair, and eyes their color. Mercury is also added to some cosmetics, such as mascara, for its properties as a preservative, preventing the growth of bacteria and fungi. A wide range of mercury levels are found in these products, and the amount of mercury is rarely disclosed to the consumer.

**What are the Risks to Human Health and the Environment?**  
 According to the World Health Organization (WHO), the health effects from the use of these products may range from allergic reactions or skin irritation to kidney damage or neurotoxicity (harm to the nervous system). In addition to human health, the environment is also at risk. Mercury from these products is eventually released into wastewater where it enters the environment and, under certain conditions, is absorbed into the food web, contaminating the seafood we eat.

**Sampling Process: Skincare Products and Cosmetics**

- Participating countries provided skin lightening products for testing.
- BRI analyzed products for mercury concentrations (our goal is to provide customs agents with the means to efficiently screen imported products for the presence of mercury.)
- Participating countries received country-specific reports on products that may affect health.

Cosmetics sampling helps meet the objectives of Article 4 of the Minamata Convention.



# MIA Priorities for Action

Through MIA Projects, a baseline for furthering mercury management priorities is identified.

In the context of the Minamata Convention Specific International Programme Project “Facilitating Capacity-building with Technical Assistance and Technology Transfer for Managing Mercury in the Caribbean”, the MIAs provided the basis for the identification of the institutional needs and capacity-building requirements of the Caribbean region as a whole.

# THANK YOU!



#8 Alexandra Street,  
St. Clair, Port of Spain,  
Trinidad and Tobago



Tel: 1 868 628-8369



[info@bcrc-caribbean.org](mailto:info@bcrc-caribbean.org)



[www.bcrc-caribbean.org](http://www.bcrc-caribbean.org)



@ Basel Convention Regional Centre - Caribbean



@bcrc.caribbean



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