

MWAISENI

An aerial photograph of Mwaikese Falls in Zambia. The image shows a wide river cascading over a rocky ledge into a lush green forest. A dirt road curves along the right side of the forest. The water is white and foamy as it falls, creating a misty atmosphere. The surrounding landscape is a mix of dense green forest and open grassy areas. The sky is clear and blue.

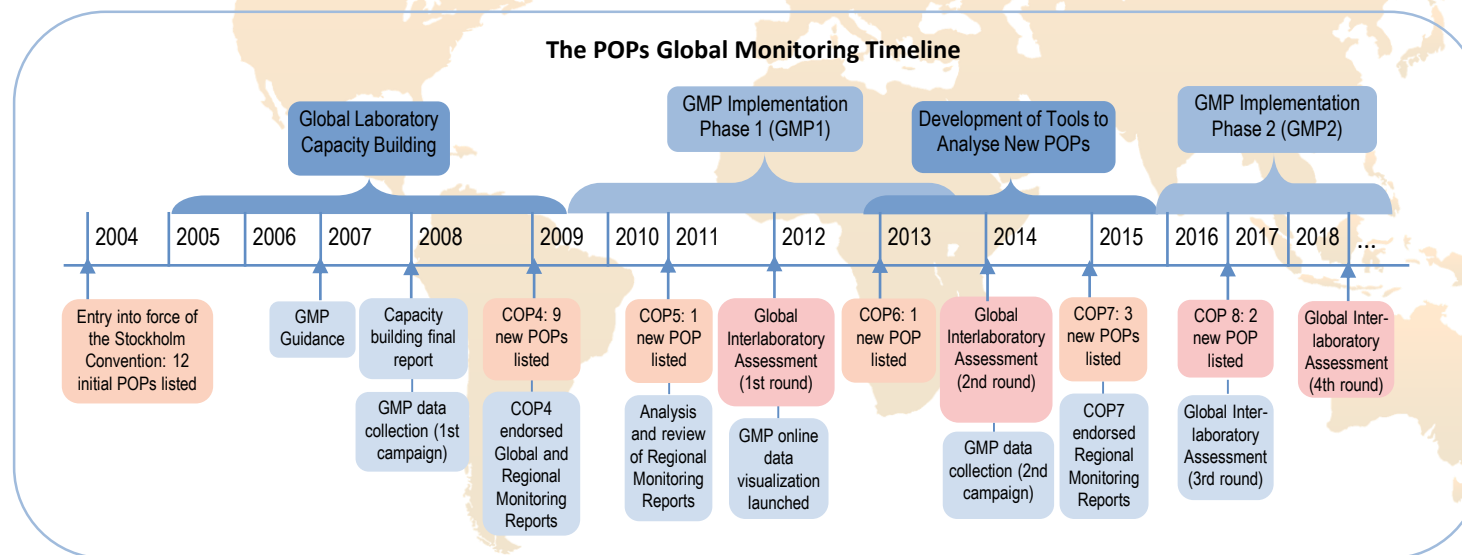
ZAMBIA

Africa region mid-term workshop

UNEP/GEF project “Continuing Regional Support for the POPs
Global Monitoring Plan under the Stockholm Convention (GMP2)” in
the Africa, Region

From GMP 1 to GMP 2

The first phase GMP projects were conducted in parallel in Africa, Asia, Latin American and the Caribbean (GRULAC) and the Pacific regions from 2009 to 2012, provided data on human exposure and environmental concentration of the 12 POPs originally included for the Stockholm Convention effectiveness evaluation. Building on the success of GMP1 and according to decision SC-6/23, four GMP follow-up projects (GMP2) are being implemented in the African, Asian, GRULAC and Pacific Regions.



UNEP/GEF POPs Global Monitoring Plan

Building Capacity to Sample and Analyse POPs

Data collection framework

POPs GMP provides a framework for the collection of comparable monitoring data on changes in the concentrations of POPs over time and their regional and global transport.

Stakeholder engagement

- National stakeholders: government, laboratories
- International experts (MTM, IVM, CVUA, RECETOX, BCCC-SCRC-Uruguay, CSIC)
- IGOs: WHO, BRS

UNEP/GEF GMP 2

1

Build capacity and generate data on analysis of core abiotic matrices (air and water) - two years of passive air sampling and water sampling

2

Build capacity and generate data on analysis of core biotic matrices (human milk) - one round of human milk sampling

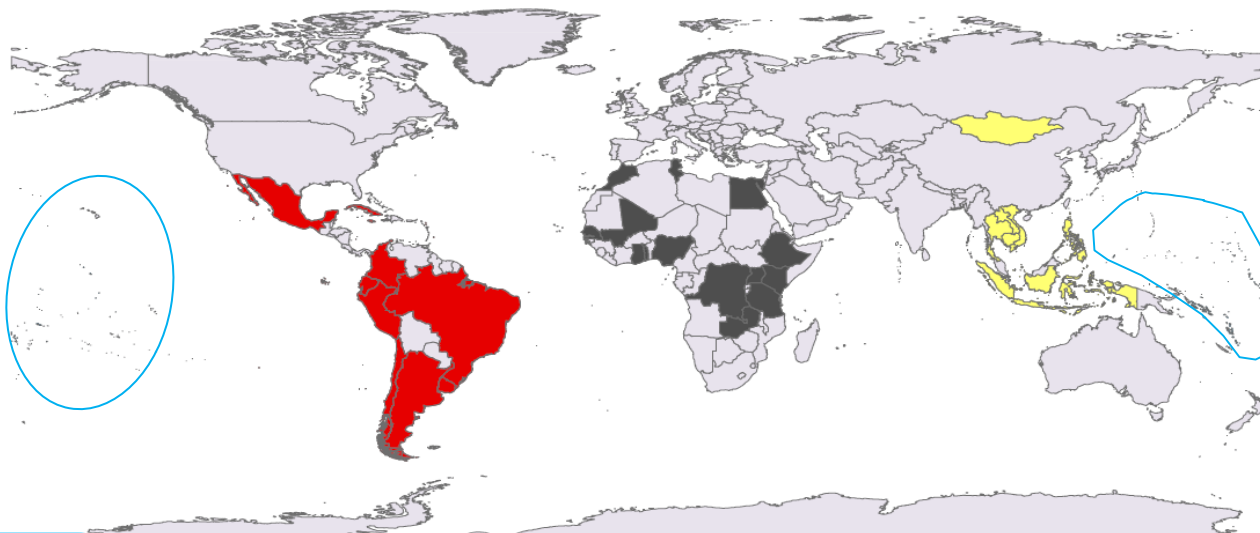
3

Assess existing analytical capacities and reinforce national POPs monitoring—two rounds of interlaboratory assessments and national samples

4

Secure conditions for sustainable POPs monitoring (tools and methods, training)

Countries participating in GMP2



Pacific Islands (10 countries): Fiji; Kiribati; Marshall Islands; Niue; Palau; Samoa; Solomon Islands; Tuvalu; Vanuatu

GRULAC (11 countries): Antigua and Barbuda; Argentina; Barbados; Brazil; Chile; Colombia; Ecuador; Jamaica; Mexico; Peru; Uruguay

Africa (15 countries): DR Congo; Egypt; Ethiopia; Ghana; Kenya; Mali; Morocco; Mauritius; Nigeria; Senegal; Tanzania; Togo; Tunisia; Uganda; Zambia

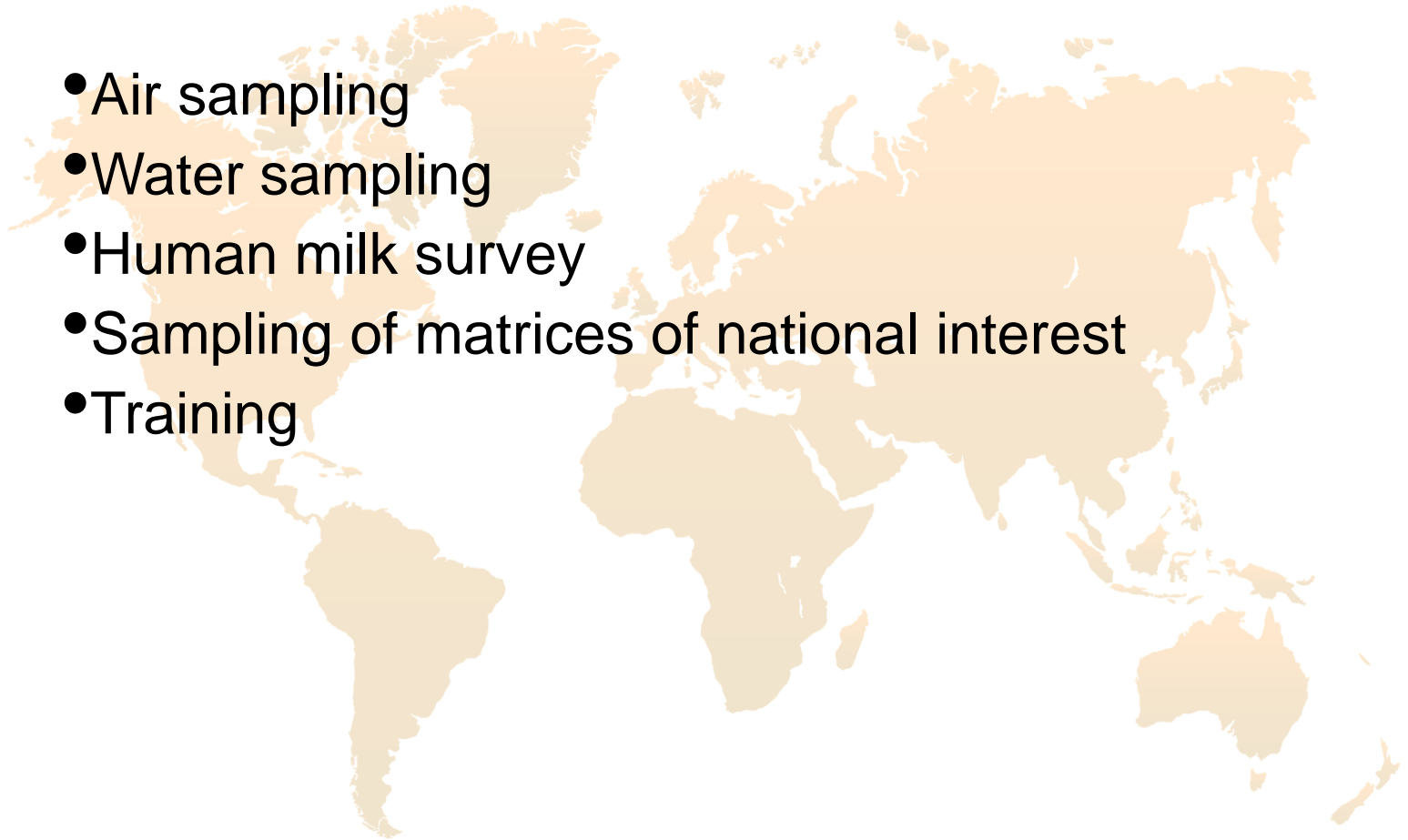
Asia (7 countries): Cambodia; Indonesia; Lao PDR; Mongolia; Philippines; Thailand; Vietnam

Activities in countries

Progress of the POPs Global Monitoring Plan in the Africa, Asia, Pacific and Latin America and Caribbean Region

National activities under the GMP project

- Air sampling
- Water sampling
- Human milk survey
- Sampling of matrices of national interest
- Training



Africa

Asia

Pacific

GRULAC

Country	2017-I	2017-II	2017-III	2017-IV	2018-I	2018-II	2018-III
DR Congo							Ongoing
Egypt							Ongoing
Ethiopia							Ongoing
Ghana							Ongoing
Mali							Ongoing
Mauritius							Ongoing
Morocco							Ongoing
Nigeria							Ongoing
Senegal							Ongoing
Togo							Ongoing
Tanzania							Ongoing
Tunisia							Ongoing
Uganda							Ongoing
Zambia							Ongoing



Water

A light orange map of the African continent is visible in the background of the slide. The map shows the outline of the continent, including major landmasses and surrounding waters.

Africa

Asia

Pacific

GRULAC

Country	Sampling Status
DR Congo	Done
Egypt	Done
Ethiopia	
Ghana	Ongoing
Kenya	Ongoing
Mali	
Mauritius	Done
Morocco	
Nigeria	
Senegal	Ongoing
Tanzania	
Togo	Done
Tunisia	
Uganda	Done
Zambia	Done

Human
milk

A light orange map of the African continent is visible in the background of the slide. The map shows the outline of the continent, including major landmasses and the Red Sea to the northeast.

Africa

Asia

Pacific

GRULAC

Country	Sampling Status
DR Congo	About to send the samples to the reference labs
Egypt	Done
Ethiopia	
Ghana	Ongoing
Kenya	Ongoing
Mali	Done
Mauritius	New matrices proposed and accepted
Morocco	Ongoing
Nigeria	Plan to start soon
Senegal	About to send the samples to the reference labs
Tanzania	Ongoing
Togo	New sampling plan submitted
Tunisia	Done
Uganda	Done
Zambia	Done

National samples

Africa

Asia

Pacific

GRULAC

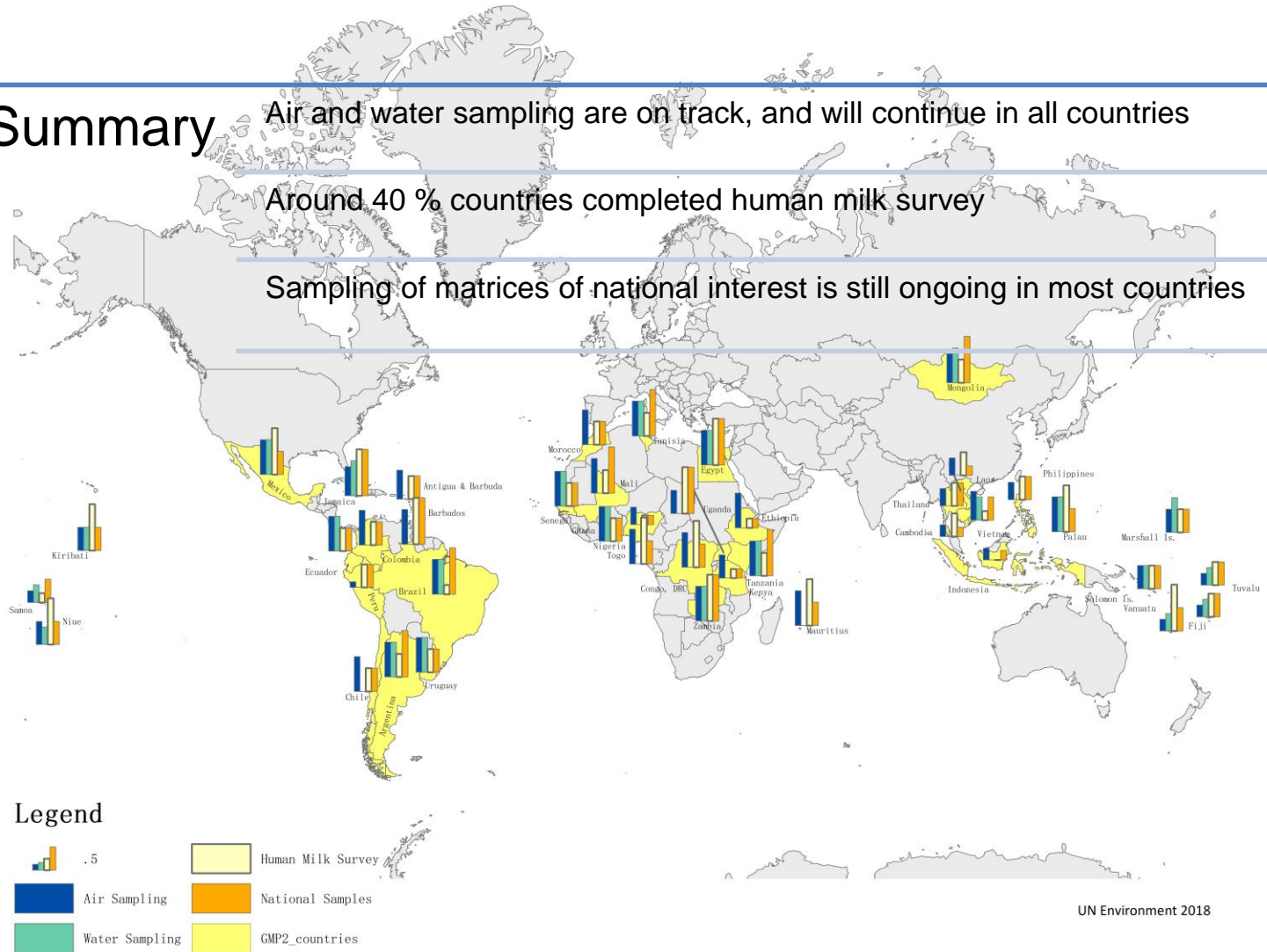
Summary

Air and water sampling are on track, and will continue in all countries

Around 40 % countries completed human milk survey

Sampling of matrices of national interest is still ongoing in most countries

Status



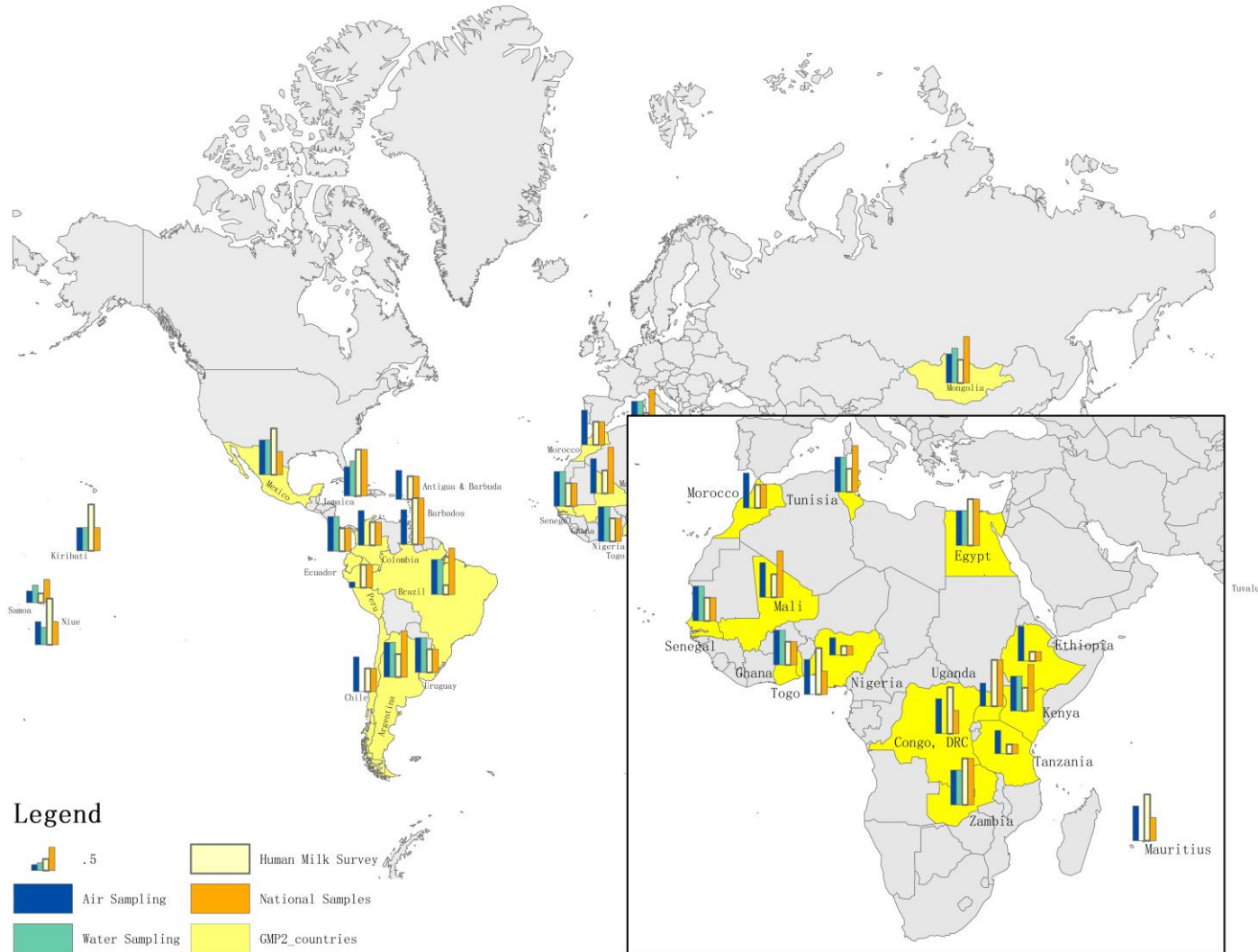
Africa

Asia

Pacific

GRULAC

Status



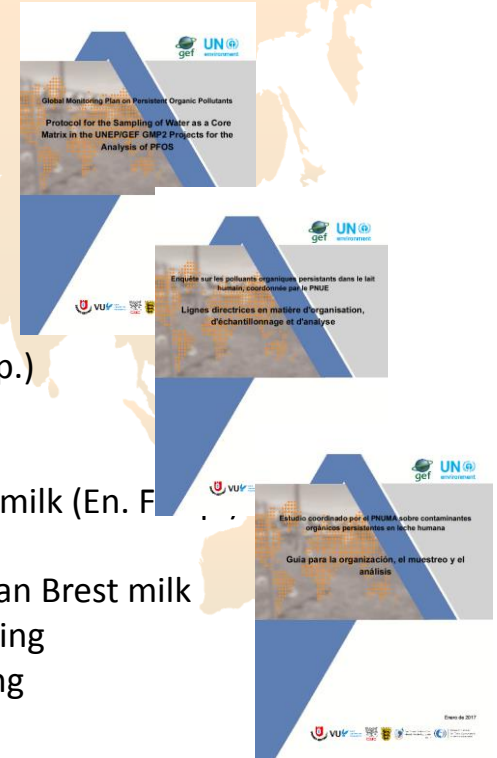
Development of Tools and Methods

- To ensure that over time and between regions, the same basic approaches and quality criteria for acceptance of data and assessment of results are applied.
- Core partners: MTM, IVM, LATU, CSIC, CVUA, RECETOX

SOPs

List of tools and methods developed

- General procedure for analysis of PFOS (En. Fr. Sp.)
- General procedure for analysis of PCB and OCP (En.Fr.Sp.)
- General Procedure for analysis of PBDE (En. Fr. Sp.)
- General procedure for the analysis of PFAS water (En. Fr. Sp.)
- General procedure for the analysis of dl-POPs (En. Fr. Sp.)
- Standard Operating Procedure for passive air sampling (En. Fr. Sp.)
- Standard Operating Procedure for water sampling (En.)
- Standard Operating Procedure for national samples (En. Fr. Sp.)
- Standard Operating Procedure for the sampling of human Breast milk (En. Fr. Sp.)
- Standard Operating Procedure for active air sampling (En.)
- Video of standard operating procedure for the sampling of human Breast milk
- Video of the standard operating procedure for passive air sampling
- Video of the standard operating procedure for active air sampling
- Sync of SOPs and videos



Africa

Asia

Pacific

GRULAC

Training



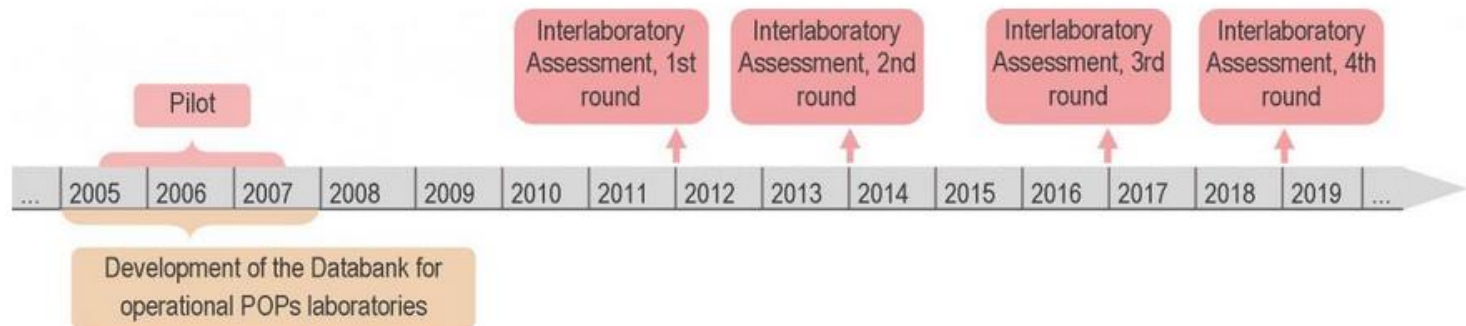
Country	When
Egypt	TBD
Ghana	Pending
Kenya	May 2017
Mauritius	14 - 22 Sep 2017
Morocco	Done
Senegal (Mali)	28 Sep - 6 Oct 2017
Tanzania	12-20 July 2018
Tunisia	TBD
Uganda	TBD
Zambia	23 April – 1 May 2018

Global Interlaboratory Assessment

IL

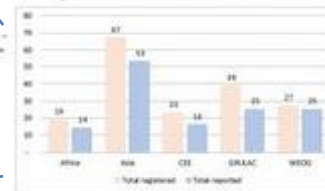
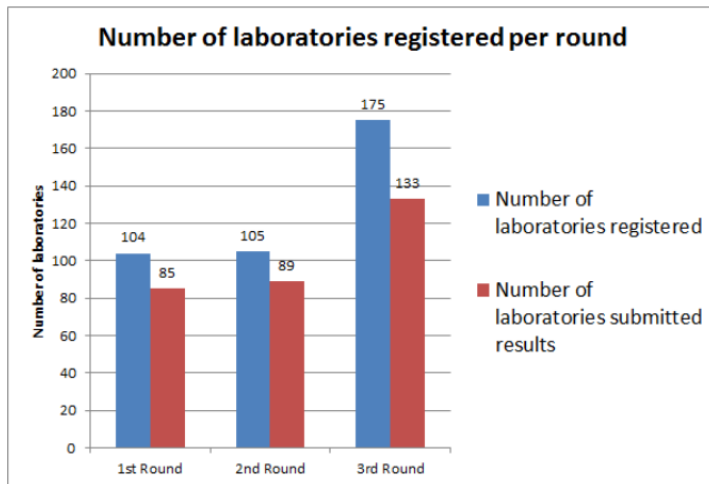
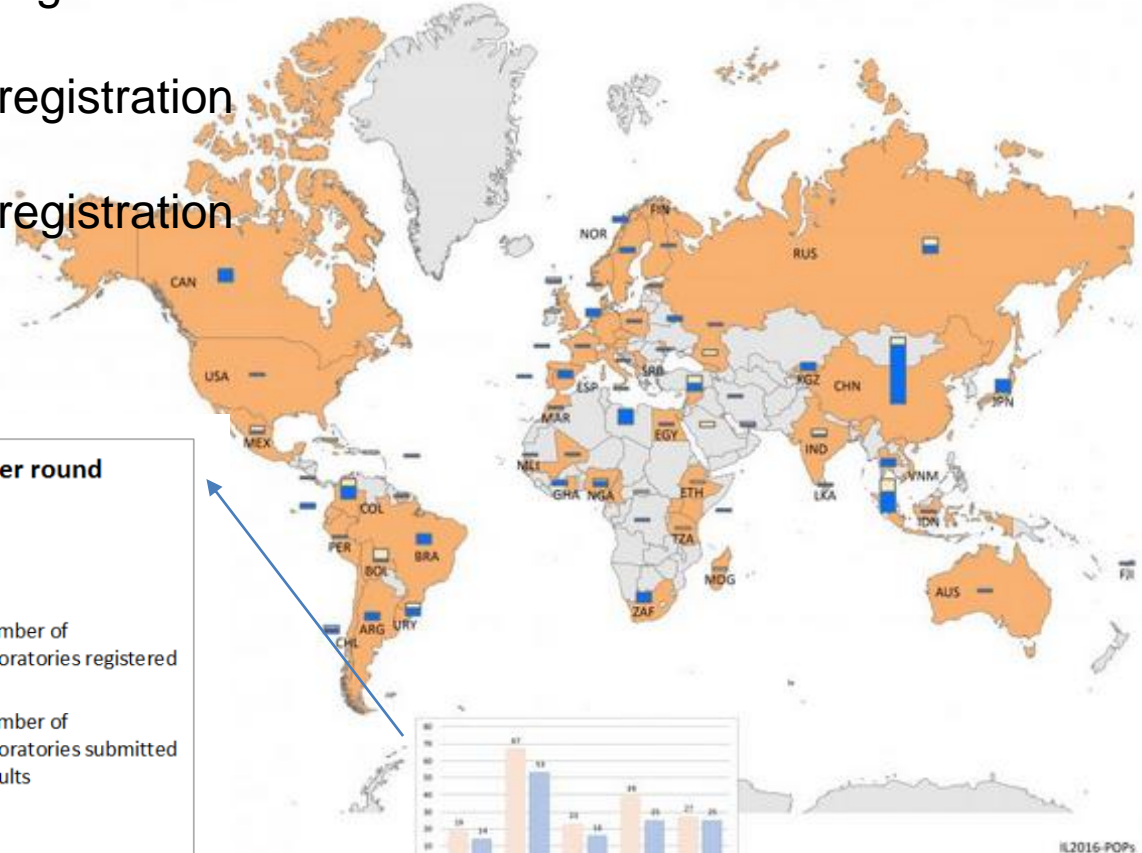
As part of the POPs Global Monitoring Plan, the Global Interlaboratory Assessment aims to

- Enhance communication and information sharing among laboratories to compare and validate data
- Identifies good practices and lessons learned for the analysis of the POPs under the Stockholm Convention



Global Interlaboratory Assessment

- 1IL 2010-2011, 104 registration
- 2IL 2013-2014, 105 registration
- 3IL 2016-2017, 175 registration



POPs Laboratory Databank

Data-
bank

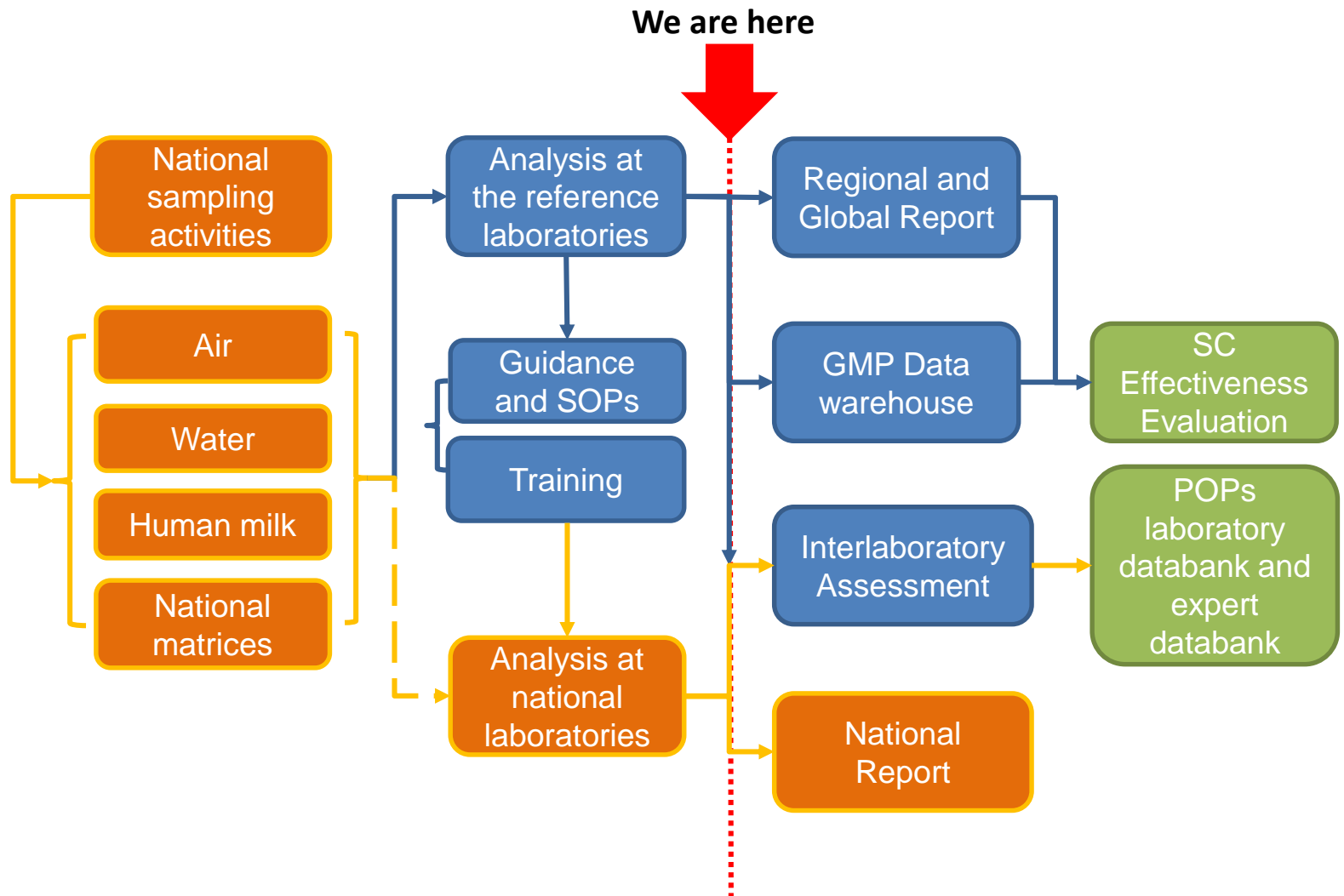
- Update of the BRS POPs laboratory databank, with new user interface and advanced searching functions added;
- The results of the interlaboratory assessments will be included in the POPs Laboratory Databank;
- Will be publically available on the K&R Unit's webpage and BRS webpage;
- 256 laboratories included at present.

The image displays the UNEP Databank of Laboratories Analyzing POPs portal. On the left is the 'Portal' with the UN environment logo and navigation links for 'Laboratory Databank' and 'POPs Laboratory Databank'. The main content area is divided into three sections:

- Lab list:** A table showing a list of laboratories with columns for Laboratory, Country, and Region. The first few entries are:

Laboratory	Country	Region
Department Analytical Services	Antigua and Barbuda	GRULAC
CETA - Centro de Estudios Transdisciplinarios del Agua	Argentina	GRULAC
CIT - Centro de Investigaciones Toxicológicas	Argentina	GRULAC
INTI - Contaminantes Orgánicos	Argentina	GRULAC
LAQAB - Laboratorio de Química Ambiental y Biogeoquímica	Argentina	GRULAC
LECA - Laboratorio Experimental de Calidad de Aguas	Argentina	GRULAC
National Measurement Institute	Australia	WEOG
Synlab Umweltanalytik GmbH	Austria	WEOG
Umweltbundesamt GmbH	Austria	WEOG
Public Analyst Laboratory	Bahamas	GRULAC
QAS - Government Analytical Services	Barbados	GRULAC
The Department of Organization of Analytical Control of the Ministry of Natural Resources and Environmental Protection	Belarus	CEE
- Lab portfolio:** A detailed view of a laboratory, 'Umweltbundesamt GmbH (AUSTRIA)'. It includes contact information (Name, Address, City/State, Country, Postal Code, Telephone, Fax, E-mail, Web Site) and details about the laboratory's accreditation, function, and type. The function is described as: 'The chemical analytical laboratories of the Federal Environment Agency established in 1960 perform sampling and organic and inorganic trace analysis in all environmental media. The monitoring of environmental pollution is essential to regional planning and to identify and study emerging environmental issues. Various organic and inorganic pollutants, such as pesticides, PCB, VOC, bromines, chlorinated hydrocarbons, heavy metals in water, soil, waste, sludge, composite chemicals, air, PM10, products and other media are part of these monitoring programs. Additionally...'.
- Advanced filters:** A screen for filtering laboratories based on various criteria: Accreditation, Extraction and Determination, Inter-calibration, Matrices and POPs, Methods, Number of Samples, and Tiers. Under 'EXTRACTION METHODS', options include P = Pressurized fluid (PFE), D = Dilution, F = Solid phase (SPE), L = Liquid/Liquid, S = Soxhlet, U = Ultrasonic, C = Supercritical fluid (SFE), and M = Microwave. Under 'INSTRUMENTATION', options include 1 = Packed column or HPLC + ECD or FID, 2 = Capillary column + ECD, 3 = Capillary column + LIMS, 4 = Capillary column + HIMS, 5 = Capillary column + MS/MS, and 6 = No instrumentation for determination.

At the mid-term, we look forward to



Africa

Asia

Pacific

GRULAC

Data-
bank

IL

Training

SOPs

Nat'Act



ZIKOMO

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