

Cooperative programme for establishing the POPs Monitoring Core Laboratories in the South-east Asia Sub-region

Japan Environmental Sanitation Center
Secretariat of POPsEA project
on behalf of the Ministry of the Environment, Japan

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History of the POPsEA project – 1

- POPsEA (Environmental POPs Monitoring Project in East Asian Countries) was initiated in 2001 in the first workshop held in Tokyo.
- The objectives of the POPsEA project is:
 - to build the POPs monitoring capacity in the East-Asia sub-region, and;
 - to compile the monitoring data at background sites following to the Global Monitoring Plan for contributing the effectiveness evaluation of the Stockholm Convention, Article 16.

History of the POPsEA project – 2

- Target POPs chemicals
 - Initial POPs except PCDDs/PCDFs
 - Hexachlorocyclohexanes
- Target core media
 - Active air sample at background site in each member country
- Capacity building
 - Donating the high volume air samplers and their attachments
 - Implementing the technical transfer for sample collection

History of the POPsEA project – 3

- Implementation of POPs monitoring
 - Trial phase monitoring in 2004
 - Vietnam (Tam Dao), Indonesia (Tangerang)
 - Full-scale monitoring: since 2005
 - Cambodia (Sihanoukville), Indonesia (Tangerang, Berastagi, Kototabang), Japan (Hateruma, **Hedo**), ROK (Goisan, Taean, **Jeju**), Lao PDR (Na Long Loun), Malaysia (Muda Dam, Batu Embun), Mongolia (Terelj), Philippines (Baguio), Thailand (Ayuttaya, Doi Inthanon, Khao Yai), Vietnam (Tam Dao)

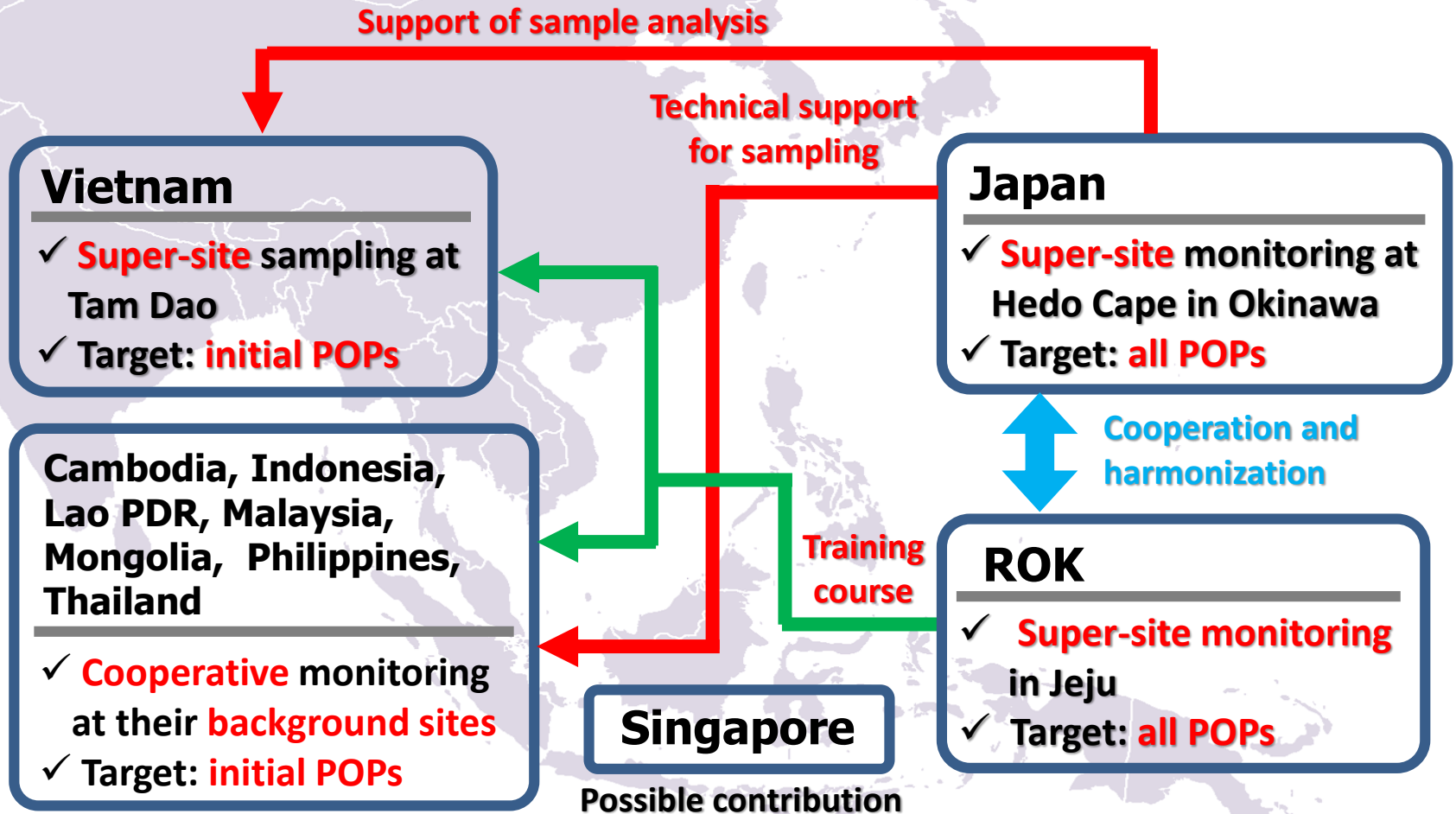
Recent monitoring sites



Present framework of monitoring

- Japan and Republic of Korea
 - Implementing monthly monitoring at their super-sites by their own budgets and activities
 - All POPs are the target chemicals in Japan.
- Other countries
 - Implementing the air sample collection with the support by Japanese experts.
 - Collected samples are analysed by JESC under the budget of the Ministry of the Environment, Japan.

Present framework of monitoring



Expected framework of monitoring

- Japan and Republic of Korea
 - Implementing monthly monitoring at their super-sites by their own budgets and activities
 - All POPs are the target chemicals in Japan.
- **Core laboratories**
- Other member countries
 - Implementing the air sample collection with the support by Japanese experts.
 - Collected samples are analysed by JESC under the budget of MOEJ.

Concept of Core laboratories

- Seamless cooperation is needed after completing the UNEP/GEF GMP2-Asia project.
- Considering the geographic balance, core laboratories should be established in the Asian region adding to Japan and ROK.

Concept of Core laboratories

- Core laboratories will work on their own resources in the host countries, while technical and financial support will be considered in the POPsEA project for additional cost required for capacity building activities.
- New core laboratories will cooperate with Japan and ROK to promote effective POPs monitoring in this sub-region.

Objectives

- Improving the effectiveness of POPs monitoring activities under the POPsEA project
 - The monitoring activities should be shared among the member countries of POPsEA project for the effective implementation of POPs monitoring.
- Strengthening the mutual cooperation among the member countries.
 - Technical and political issues and their solution should be shared among the member countries to make sure the contribution to the effectiveness evaluation of Stockholm Convention.

Goals

- Possible goals of the capacity building for the Core Laboratories are:
 - Target chemicals: all POPs chemicals
 - Target core media: all core media
 - Technical aspect
 - National Technical Manual on POPs monitoring will be prepared.
 - The obtained data shall be comparable to the internationally generated data.
 - Third-party training course can be held with developed countries.
 - Technical problems will be solved by the national experts possibly with the support from developed countries.

Goals

- Monitoring activities
 - Implementation of the monthly or quarterly monitoring by their own capacities.
 - Cooperation to the implementation of cooperative POPs monitoring is expected by dispatching their technical experts.
 - Providing the technical support to the other POPsEA member countries with the support of Japan and ROK.

Possible contents of capacity building

- Preparation of the technical documents
 - national POPs monitoring manuals
 - the Standard Operating Procedures (SOPs)
- Establishment of procurement route for purchasing the reagents, standard compounds (or solutions), lab wares, apparatus and instrument.

Possible contents of capacity building

- Feasibility study including the laboratory assessment for considering the Core Laboratories
- Upgrading the experts in the participating countries for the improvement of problem-solution ability
- Establishment of the domestic framework for the sustainable POPs monitoring

Proposed program

- Technical seminar
 - Introduction and overview of POPs monitoring under the Global Monitoring Plan (GMP) of the Stockholm Convention
 - Quality assurance and quality control for the measurement
- Possible participating countries
 - all member countries

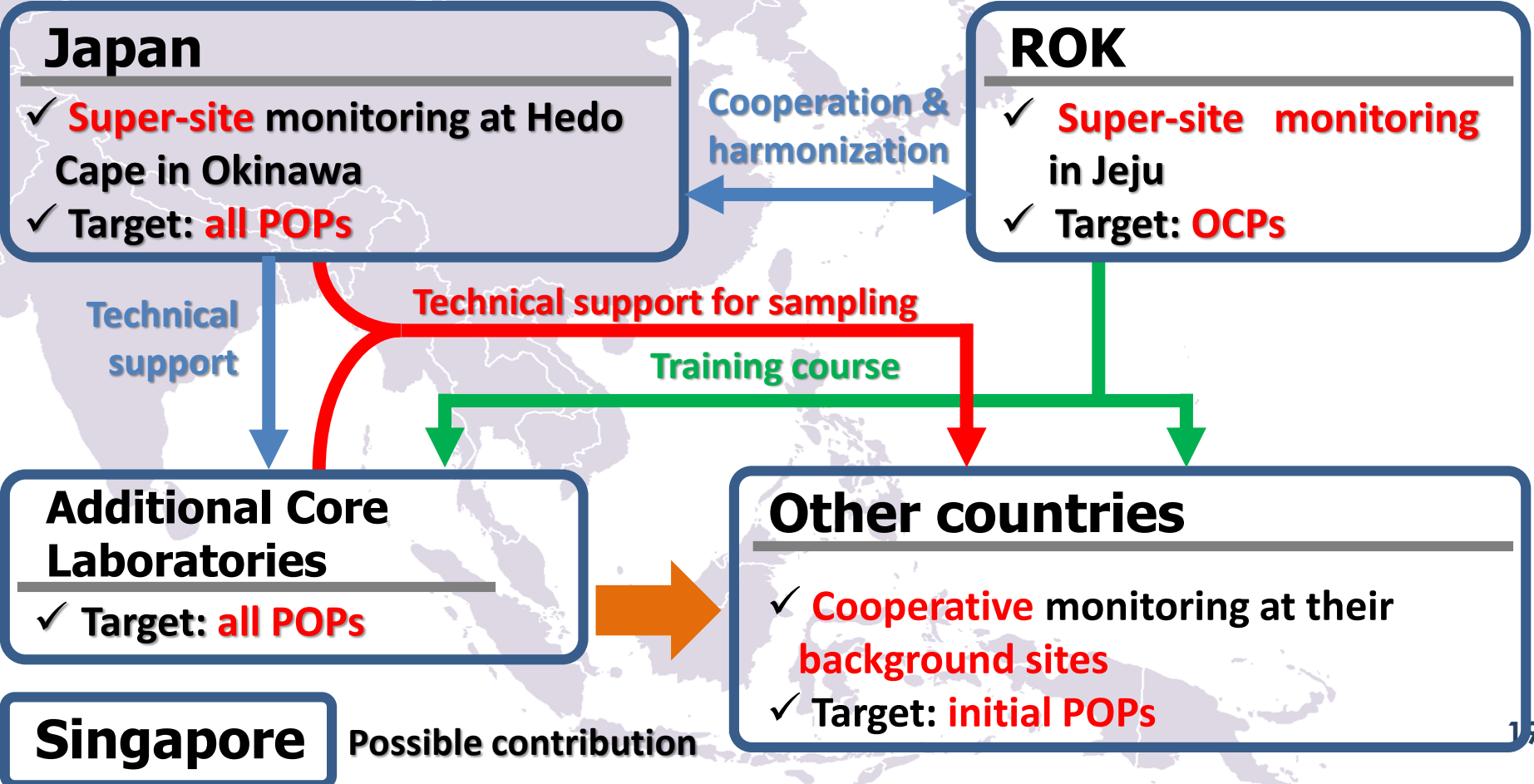
Proposed program

- Implementation of the training course by dispatching the expert to the additional Center Laboratory
 - Management of the facility and instrumentation
 - Sample collection
 - Storage of the collected samples
 - Extraction of POPs chemicals from the sample materials
 - Cleanup of the extracted solution
 - Measurements
 - Quantification procedures

Proposed program

- Implementation of inter-laboratory comparison practice (ILC practice)
 - Training for the preparation of the common samples
 - Common samples preparation for the first attempt of the ILC practice
 - Assignment of participating laboratories and calling for the participation to several laboratories
 - Planning of the implementation of inter-laboratory comparison practice
 - Compilation and evaluation of the submitted results from the participating laboratories

Expected framework of monitoring



Expected expense distribution

Ministry of the Environment, Japan

- Dispatching the appropriate experts (travel cost including per diem, accommodation, flight ticket, traffic fee, payroll of the experts)
- Preparing the significant consumables, such as standard solutions, capillary columns and so on, which are difficult to be purchased by the Core Laboratories, initially
- Providing necessary documents, information and so on

Expected expense distribution

Other countries not holding Core Laboratories

- Travel costs for to join the training at the Core Laboratories
- Expense for analysis of samples

General consideration

- Even if the Core Laboratories cannot continue their mission, that situation have to be explained to the member countries of POPsEA.
- Since the POPsEA project has been implemented by the invitation from the Director of MoEJ and there were any MOUs, the progress and activities of establishing the Core Laboratories would be reported in the POPsEA workshop.

General consideration

- The MoEJ does not consider to exchange the MOU right now.
 - The MoEJ considers that this challenge should be implemented with the consideration of soft commitments.
- The Core Laboratories are considered to be established in one country at first.
 - Covering limited POPs monitoring is also accepted.
 - Further improvement of activities in the Core Laboratories is also welcomed and the possible technical support will be provided by Japan under the framework of POPsEA project. with the c



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