

Meeting Documents

Case Study 1:

Environmental Persistent Organic Pollutants Monitoring Project in East Asian Countries

1. Summary

SUMMARY

Title:

Environmental Persistent Organic Pollutants Monitoring Project in East Asian Countries (POPsEA project)

Service:

Background Air Monitoring of POPs pesticides, PCBs and PCDDs/DFs

End users:

Government agencies, expert groups, air managers, policy makers, researchers, local communities

Intermediate users:

National Institute for Environmental Studies, Japan
BRS Secretariat

Application(s):

Publication of Sub-regional Report to share the monitoring data and to submit to the Regional Organizing Group for the Effectiveness Evaluation of the Stockholm Convention.

No specific website is provided.

Methods used:

Collection and analysis of high volume air samplers with PUFs and active carbon fiber felt, and passive air samplers with PUF

Agency that produce records/ reports:

National Institute for Environmental Studies, Japan; Japan Environmental Sanitation Center (JESC) as the Secretariat to the POPsEA project (on behalf of the Ministry of Environment of Japan)

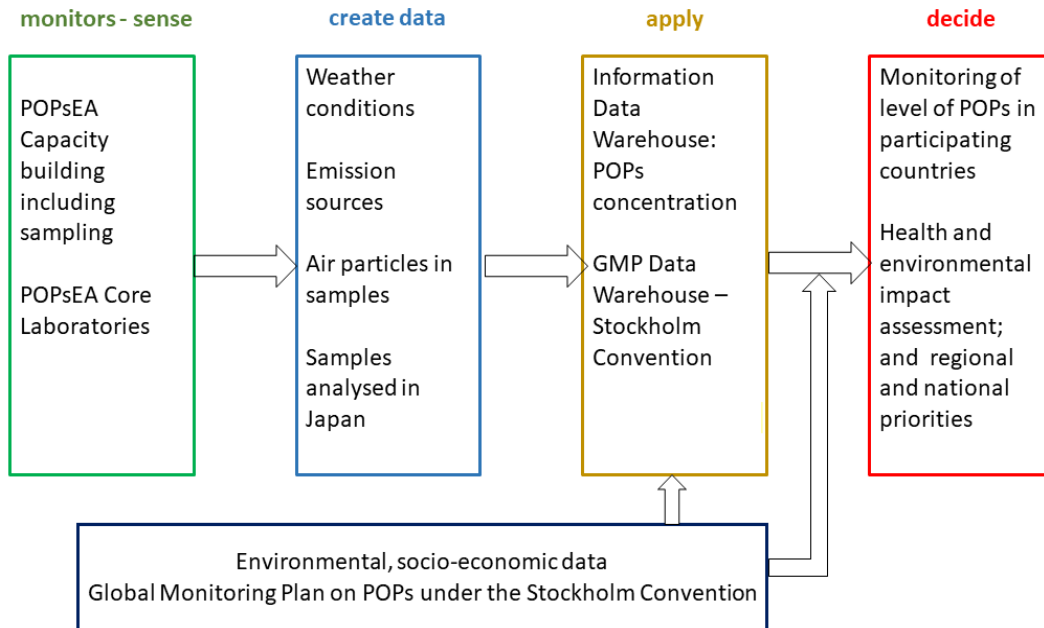
Sustainability of Service (demonstration or ongoing):

Activities commenced in 2001 and it is a 18 years project. It is expected to successfully monitor on the air contaminations of POPs in the East Asia region.



Meeting Documents

Information Flow



Description

Most countries in the Asian Region share common challenges to comply with Article 16 of the Stockholm Convention to monitor POPs, produce comparable data and to contribute to evaluate the effectiveness of the implementation of the Convention. There are many countries that lack sufficient funds, advanced technology, knowledge, or personnel to develop a solid national and regional POPs monitoring programme.

The Environmental Persistent Organic Pollutants Monitoring Project in East Asian Countries (POPsEA project) is a collaboration that contributes to the development of the POPs Global Monitoring Plan under the Stockholm Convention. The Programme is led by the Ministry of Environment of Japan and was initiated in 2001 with its first workshop held in Tokyo. It includes the following countries: Cambodia, Indonesia, Lao PDR, Malaysia, Mongolia, Philippines, Thailand and Vietnam. The objective of the POPsEA is to build POPs monitoring capacity in the East Asia region and to compile the monitored data and background sites to contribute the Global Monitoring Plan for the Stockholm Convention and the effectiveness evaluation as stated in Article 16.

2. Activities

Meeting Documents

Capacity Building

The POPsEA Programme's core media is air and has set active and passive air samplers in each of the participating country. The Programme's Capacity Building component has donated air samplers and consumables to participating countries, as well as made possible technology transfer for sample collection. Starting in 2004, the programme monitored two sites: Tam Dao in Vietnam and Tangerang in Indonesia. From 2005 the programme has set monitoring stations at the following places: Cambodia (Sihanoukville), Indonesia (Tangerang, Berastagi, Kototabang), Japan (Hateruma, Hedo), Republic of Korea (Goisan, Taean, Jeju), Lao PDR (Na Long Koun Village), Malaysia (Muda Dam, Batu Embun), Mongolia (Terelj), Philippines (Baguio), Thailand (Ayuttaya, Doi Inthanon, Khao Yai) and Vietnam (Tam Dao).

Since 2001 Japan, and Republic of Korea have developed and implemented a Bilateral Programme for the Harmonization of POPs monitoring methods. From 2004, Japan has been providing technical support for sampling and analysis of POPs to participating countries. Since 2011, the Republic of Korea has organized training workshops on POPs sampling and analysis of POPs and from 2006 has developed and maintained an Information Data Warehouse considering the harmonization to the Data Warehouse managed by BRS Secretariat.

Monitoring

Japan and Republic of Korea perform monthly monitoring of all POPs at their super sites in Hedo Cape and Jeju Island respectively. The other participating countries collect the air samples with support of Japanese experts and target the initial POPs (12), PCBs and PCDDs/DFs. Samples are then analysed by the JESC with budget from the Ministry of the Environment of Japan.



Figure 1: Current monitoring sites in participating countries showing the location of the active samplers installed under the POPsEA Programme

Meeting Documents

Core laboratories

At present, all samples under the POPsEA Project are analysed in Japan and Republic of Korea. After conducting a feasibility study on laboratories capacity, the POPsEA Project will identify and establish Core Laboratories that will work at their own expense and host countries, while technical and financial support will be considered for capacity building activities. It is expected that the core laboratories will work with Japan and the Republic of Korea to effectively monitor POPs in the region on a monthly or quarterly basis, according to their own capacities.

- a) The Goal of the Capacity Building for Core Laboratories is to target all POPs and include all core media, not only air. Regarding the technical aspect of it, the following outputs are expected;
- b) National technical manual on POPs monitoring and Standard Operating Procedures (SOPs);
- c) Internationally comparable data generated;
- d) Establishment of a procurement system to buy reagents and consumables;
- e) Implementing the training course for supporting to the other member countries of POPsEA project. The technical seminar, on-site training, assisting the POPs monitoring will be expected;
- f) Technical cooperation between experts from participating countries and lead countries, including training programmes for regional experts;
- g) Establishment of a domestic framework for sustainable POPs monitoring

3. General Considerations

- Regional POPs monitoring programmes provide valuable resources and support for chemicals analysis and monitoring. Sharing the results of the POPsEA with relevant sectoral scientific laboratories. This will facilitate the objective to become national chemical monitoring programmes and will establish evidence-based policymaking processes leading to substantive evaluation of the current regulations related to POPs.
- The POPsEA project provides a framework for cooperation and capacity building regarding POPs monitoring and has been successful in setting a solid network of monitoring sites and a clear process to analyse samples in the region.
- Future sustainability would depend on the self-financed activities in which countries will be responsible to support the monitoring programme at the national level. In that sense Public-private partnerships are essential for enhancing infrastructure and capacity for POPs management. The inclusion of industries with scientific knowledge and technologies it is feasible to maintain a POPs monitoring system in the region.