

BUSINESS PLAN / WORK PLAN (2018, 2019)

Name of Regional Centre: Novosibirsk Institute of Organic Chemistry (NIOCH SB RAS)

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This business/work plan covers the period from 10/01/2018 to 31/12/2019

Executive Summary

Now we are like Alice down the rabbit hole. Many things are not clear (money, what to do first, Government attention to POPs and so on and so forth). But we are optimists and wish to join the Stockholm Convention community and hope to find permanent support from our Government and superior organizations.

This work plan relates to the future activities of the Stockholm Convention Regional Centre for Capacity Building and the Transfer of Technology in the Russian Federation and the Central Asia that is going to be hosted by Novosibirsk Institute of Organic Chemistry, Novosibirsk, Russia (hereafter "SCRC NIOCH"). The new center, SCRC NIOCH, will provide support to the Stockholm Convention contracting Parties (countries) in its geographical region (the Russian Federation and countries of the Central Asia) to fulfil their obligations under the Stockholm Convention.

SCRC NIOCH could fulfil several roles: an academic institution providing university education and practical researches in the field of ecology and toxicology including expert and analytical activities at emergency situations, a research institution working on revealing of contamination with POP of the environment and effects on living organisms, and a body supporting implementation of and capacity building under the Stockholm Convention on Persistent Organic Pollutants (POPs) and other global environmental agreements and initiatives with SC parties.

The work plan combines the most important issues for SCRC NIOCH as a new center in the Russian Federation and the region for 2018 and 2019, namely,

- 1) analysis of available infrastructure and recovery the regional capacities in chemical analyses of toxic chemical in an appropriate levels,
- 2) cooperating with SCRC RECETOX in Brno for education of our staff, knowledge exchange and methodology support,
- 2) consolidating the existing analytical platforms and organizations in the Central Asia region necessary infrastructure for information collecting and experience exchange,
- 3) support in implementation of the Global Monitoring Plan to the Stockholm Convention by creating monitoring networks and training experts in sampling,
- 4) data mining and management.

In addition, we will support decision making by communicating with local authority and government concerning POP contamination and necessity of environment control, presentation of environmental and human data in relation to toxic chemicals through electronic tools and by enlarging capacities in the management of PCBs, new POPs, and a greater understanding of linkages between environment and health.

1. Introduction and Background

Currently any regional centre of the Stockholm Convention is lack on the huge territory of the Russian Federation and Central-Asian countries. Novosibirsk Institute of Organic Chemistry has been nominated as SCRC and is still waiting for approval by the Ministry of Natural Resources and Environment and the Federal Agency of Scientific Organizations. SCRC NIOCH will serve the Russian Federation and countries in Central Asia, promoting the implementation of the Stockholm Convention and POPs reduction and elimination in the region. All countries in the region belong to developing regions with POPs contamination from serious due to historical production/application of POPs and to very low from the transboundary movement of hazardous waste.

Challenges for POPs management in the region are related with a huge territory, lack of capacity to provide modern POPs monitoring and analysis, scarce data on POPs contamination, public careless attention to problem of POPs including identification and disposal of POPs in products, necessity of technical assistance and technology transfer from well-equipped and working Stockholm centers.

A preliminary work revealed the most relevant issues and problems in the region concerning implementation of the requirements and measures in the Stockholm Convention on Persistent Organic Pollutants:

1. Very low laboratory and staff capacity and world-accepted technology in analyzing POPs in the Russian Federation and Central-Asian countries;
2. Lack of long-term monitoring data on POPs and low-involvement of the Russian Federation and the region countries in Global Monitoring Plan implementation and activities;
3. At the local level limited availability of information and awareness raising materials on hazard of POPs and related with POP-contamination phenomena;
4. Very limited cooperation between Governments of the Region countries and local authorities as well as environment and health sectors concerning implementation of the Stockholm Convention;
5. Low capacity in environment and health data mining and data management including low awareness on available mass-media;
6. Lack of financial support.

2. Goals and Objectives:

During the two years' period of the work plan, SCRC NIOCH will focus on **the next goals** directed toward the implementation of Stockholm Convention in the region.

Goal 1 Successfully finalize nomination and receive an approval of SCRC NIOCH, and find sources for permanent financial support of SCRC NIOCH. Renew and repair available in NIOCH equipment.

- Be in touch with the Secretariat of the Convention to complete the nomination procedure
- Submit a project to FASO for a long-term financial support of SCRC NIOCH (one per year)
- Request other parties for the technical assistance and also the Stockholm Convention for financial support
- Prepare and submit a project to the Federal Agency of Scientific Organizations (FASO) to increase laboratory capacities

Goal 2 Update list of laboratories and their instrumentation across the region.

- Review available infrastructure and capacity in the region

- Be connected with at least 15 the most known laboratories and research institutes to clarify their ability to assist national POPs monitoring activities

Goal 3 Support implementation of the Global Monitoring Plan to the Stockholm Convention

- Establish a strategic partnership with at least two SCRC within 2018–2019
- Collect modern national and foreign methods for the analysis of POPs including newly listed in air, blood, breast milk and other environmental objects
- Adapt the most optimal techniques for existing equipment.

Goal 4 Organize the training of laboratory experts in other SCRCs in performing analytical measurements of POPs in accordance with modern requirements.

- Provide training of our personal in all aspect concerning the monitoring POPs in air, blood and breast milk (one per year)
- Perform international collaborative research on POPs and mercury (presumably with RECETOX) at least once per year
- Invite researchers from other SCRC for knowledge exchange

Goal 5 Identifying the status of exposure to POPs among the population of Russia and Central-Asian countries. Provide technical assistance to all countries in the region.

- Perform a test monitoring of POPs (listed in Annex A) content in air, blood and breast milk in selected regions of Russia, as well as in the air near metallurgical, chemical and paper industries (20 sampling sites).
- Determine POP contamination levels (listed in Annex A) in air in selected Central-Asian countries (Kazakhstan, Mongolia) using passive samplers
- In case of need to assist RECETOX in sampling and long-term monitoring of POPs in the region, and cooperate with at least two other SCRCs to get assistance

3: Constraints and Resources:

Constraints:

- Lack of state support at the national level and lack of available funds to implement more effective projects in the Russian Federation and Central-Asian regions.

SCRC NIOCH plans to apply for international funding, to request SC parties for technical assistance, last but not least, and to meet with authorities and decision makers to discuss National Implementation Plan and necessity of its financing.

- Insufficient national infrastructure for chemicals management including technical facilities and laboratory instrumentation.

We are going to renew and repair available in NIOCH equipment, to purchase or get (in frame of a technical assistance) new (or second-hand) equipment for sampling and sample preparation. We will request other parties for the technical assistance and also the Stockholm Convention for financial support. Also we will prepare and submit a project to the Federal Agency of Scientific Organizations (FASO) to increase laboratory capacities.

Resources:

The equipment available in NIOCH enables high-level research in the areas of ecology, biology, chemistry, biochemistry, and medicine that complies with the modern international standards. NIOCH was certified by the Federation Agency on Accreditation and able to carry out analysis and identification of organic substances and materials including the analysis of ‘trace’ and ‘ultra-trace’ analysis of persistent organic pollutants. The accreditation scopes cover today around 350 environmental assays: inorganic and

organic, microbiological, ecotoxicological, mutagenicity, and vehicular emission testing and sampling procedures. Concerning POPs the next Limits of Quantification Analysis were certified:

- in water: aldrin, chlordane, chlordecone, dichlorodiphenyltrichloroethane (DDT), dieldrin, endosulfan, endrin, heptachlor, hexachlorobenzene (HCB), gamma-hexachlorocyclohexane (γ -HCH, lindane) – 0.00001 mg/l;
- polychlorinated biphenyls (PCBs) and polychlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs) – 0.5 pg/l;
- in soil and related sources: aldrin, chlordane, chlordecone, DDT, dieldrin, endosulfan, endrin, heptachlor, hexachlorobenzene (HCB), gamma-hexachlorocyclohexane (γ -HCH, lindane) – 0.001 mg/kg;
- polychlorinated biphenyls (PCBs) and polychlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs) – 1 ng/kg.

SUMMARY concerning NIOCH SD RAS as a new perspective Regional Centre

- Geographical position (new territories including hidden places of the North Asia)
- Experience (25 years) in ecological researches
- Trained staff including young scientists
- Available analytical equipment and infrastructure
- Close to high-ranked Novosibirsk State University with Department of Environmental Chemistry
- Experience in research of Halogen Compounds
- Relationships with other ecological Labs (from Moscow to Vladivostok)
- Close location (30 km) to Novosibirsk and International Airport

4: Activities and Strategies

Name of the Project/activity	Convention			Beneficiary Party (ies)	Estimated budget (US\$)	Funding source(s)	Time frame (Year)
	BC	SC	RC				
Organization of the Stockholm Convention National Coordinating center / Meeting with authorities for institutional support		x		Russia	400 per meeting	NIOCH own resources /MNR	September, 2017
Development of capacities for monitoring of POPs / Writing proposal to RSF		x		All	100,000	Russian government	2018, 2019
Development of NIOCH capacities to serve as SCRC / Proposals to repair institutional equipment		x		All	30,000	Russian government	2018, 2019
Development of capacities for new POPs / Writing proposal to RFBR		x		All	10,000	Russian government	2018, 2019
Organization of the SC National Coordinating center / Negotiation with FASO and MNR for annual support		x		Russia	1,000,000 per year	Russian government	2017
Organization of the Stockholm Convention Regional Coordinating center / Training of laboratory experts		x		Regional countries	tbd	National Environm. Facility	2018, 2019
Monitoring of POPs in Arctic zone / Contacting with the Arctic Soviet and Identifying of other donors		x		Russia	tbd	Oil industry, Russian government	2018
On demand courses – analysis and identification of ‘trace’ and ‘ultra-trace’ analysis of persistent organic pollutants		x		Russia and Regional countries	depending on the scope	Participant fee	2018, 2019
Collaborative projects in support of regional implementation of SC / Contacting with the countries and writing projects		x		All	tbd	Governments and Research funding agencies	2018, 2019
Establishment and Construction of Platform on Technical Assistance / Contacting with FASO, MNR and Government		x		Russia and Regional countries	tbd	Russian government and other potential funds	2018, 2019

Strategies	What will be done	By when (timeline)
Endorsement/involvement/need identification of the beneficiaries (list applicable activities/projects or entire plan)	What will be done to involve/ get endorsement from the beneficiaries? <ul style="list-style-type: none"> • Meeting with donors and state representatives to support SCRC NIOCH. • To actively apply for funds and projects from international organizations. • To invite senior officials or experts from beneficiary countries to participate the regional workshops. • To contact with all concerned organizations and parties via e-mail for experience exchange based on the demands of the beneficiary countries 	continuous
Identification of potential donors/funds/agencies	What will be done to identify the potential funding sources? <ul style="list-style-type: none"> • Personal contacts with collaborating institutions, the Ministry of Natural Resources and Environment, the Federal Agency of Scientific Organizations and the President of Russia. • Writing proposal for grants to support the new and growing SCRC NIOCH. • Cooperation with other countries that pay attention to non-toxic environment. 	From 2017
Preparation of grant proposals	(List the area in which project proposals will be prepared and submitted) <ul style="list-style-type: none"> • Development of capacities of SCRC NIOCH. • Environmental monitoring programs in the Russian Federation and Central-Asian region. • Identification of persistent organic pollutants in the environment of Siberia and Mongolia, as well as of identifying the main sources of pollution. • The test identification of chemicals in products • Mercury Monitoring in the Environment 	2018, 2019
Any other activities...		

5. Evaluation Plan

In order to complete the business plan successfully, SCRC NIOCH intends to evaluate its performance in the implementation of the present work plan at least every six months by the head of SCRC NIOCH and the secretary. The first evaluation will take place in July 2018 and the first update of the plan should be issued in August 2018. The update of the work plan will be published on the website of the SCRC NIOCH (under preparation).