

Capacity building and training on environmental sector

Marco Falconi marco.falconi@isprambiente.it, Michele Fratini michele.fratini@isprambiente.it, - ISPRA , Italian Institute for Environmental Protection and Research

Introduction and context

ISPRA (Italian Institute for Environmental Protection and Research) is part of a network known as National System for Environmental Protection (SNPA), which is made up of 21 Territorial Environmental Protection Agencies (ARPA/APPA), established by Regional Laws. It's an example of consolidated federal system, which combines the direct knowledge of the territory and its issues with the national policies for environmental protection, so as to become an institutional and technical-scientific reference point for the whole Italian country.

Besides its role in Italy, where it has a specific role in environmental monitoring of contamination, ISPRA has participated or participates to several initiatives worldwide, supporting environmental policies, capacity building of EPA of developing countries in several fields of environmental sector like contaminated sites, water management, inspections on polluting activities.

The initiatives were in the framework of international projects under UN, EU programs or bilateral agreement between countries.

Materials and approaches

The proposal is simply to support in the capacity building of EPA and/or other public institutions of other countries, through technical training, field visits, support to environmental policy.

The environmental fields that may be put into the table are:

1. Masterplan of complex areas



Areas like Porto Marghera, that is contaminated sites in the Italian national priority list, are big and complex as comprehend many site owners, many contamination plumes. The best solution is to have a common framework and integrated management of the area in the topics where this is possible and advantageous for all stakeholders. ISPRA, starting from the Italian experiences may support in:

- Operative protocol for characterization of potentially polluted areas
- Technical specification on how companies should avoid spreading of contamination
- Minimum requirements for proposing innovative remediation technologies for soil and GW

2. Innovative characterization technologies

In contaminated areas, very often the highest human health risks comes from vapor inhalation calculated by simply models that often overestimate the real risk mainly because they consider the total amount of contaminant (without chemical speciation), an infinite source and not taking into account the biodegradation. To a better understanding of the conceptual site model, the use of innovative technologies is needed. ISPRA through the experience done during its experimental activities on soil gas, flux chamber and passive sampler, may support other institution on how to use them, which are their advantages and limits.



Other activities where ISPRA has its expertise where it may support other countries' institutions through training and capacity building are:

3. Human Health and Environmental Risk Assessment
4. Relative risk assessment
5. Remediation technology selection
6. Hydraulic barrier monitoring
7. Development of soil and groundwater background values

Outcomes

- Training course in Italy and/or hosting country in selected topics
- Joint inspections and site visit in Italy and/or hosting country
- Developing protocols according to the hosting country legislation
- Technical specification for using new technologies
- Benchmark of already existing technologies with limits

Transferability

The degree of transferability is very high. The proposal can be directed also to technicians/experts of more countries, in a way they could share notions, knowledge and experiences to their colleagues in their home countries.