

Istituto Zooprofilattico Sperimentale del Lazio e della Toscana M. Aleandri





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## **Action Plan IZSLT (Italy)**

IZSLT Lazio (Italy)

09 june 2021





#### The Istituto Zooprofilattico Sperimentale del Lazio e della Toscana M. Aleandri (IZSLT) – (Coordinators: Bruno Neri, Paola Scaramozzino)

Istituto Zooprofilattico Sperimentale del Lazio e della Toscana M. Aleandri

proposes as Action Plan:

### Study on the safety of edible vegetables grown in areas contaminated by beta-HCH







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Although the river Sacco is affected by the presence of numerous industrial sites, it is estimated that 20 % of population (about 6,700 residents) is still employed in the agricultural sector.



Within the current perimeter there are two main industrial areas producing different pollutants









### Areas banned for agricoltural use since 2005



Since 2005 it was forbidden the cultivation of plant species for human and animal nutrition, the pasture and earth moving in the following agricultural areas :

- floodable areas with a return period of less than 30 years around river inside SIN perimeter
- portions of territory within 100 m from the banks inside SIN perimeter











The dilution of the contamination and the width of the affected area make it **impossible** to remove all the contaminated soils. For this reason is important to decide how to use the soil.



According to the national legislation an Health risk assessment (VdR) has to be carried out to verify that the concentrations of substances found in the soil are compatible with the crop cultivation

\*Deliberation of the Lazio Region n. 119 of 06/03/2019 an Agreement Program between the MATTM and the Lazio Region was approved for the implementation of safety interventions and reclamation of the SIN "Bacino del Fiume Sacco".





Policy Agreement by Ministry and Region: Safety interventions and reclamation of the SIN "Bacino del Fiume Sacco"

Plan of Characterization of agricultural riverbanks

Action Plan for Lindanet Project: Study on the safety of edible vegetables grown in areas contaminated by beta-HCH





# Relation between Action Plan and Policy instrument

The POLICY INSTRUMENT we addressed at the beginning of the project was: <u>National residue plan (NRP)</u>, developed annually, based on risk analysis performed by the Regional Authority for Food Safety, in order to investigate the safety of dairy products intended for human consumption

However, since January 2021 the above Residues monitoring Plan was included in a wider monitoring approach under the supervision of the IZSLT, on behalf of our Regional Government, responsible for all the environmental issues. This new Plan, called "<u>Characterization of agricultural</u> <u>riverbanks</u>", aims at mapping environmental pollution in agricultural lands

We asked to the Joint secretariat if we should change the policy instrument (14/5)





### Rationale of Action Plan

Until now, knowledge is scarce on the type of food agriculture that can be continued in HCH polluted areas without affecting human health or food safety.

The passage of HCH isomers into plants is selective and not all plants or parts of them are equally vulnerable.





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#### **Objective**

The action plan aims to verify whether the vegetables can absorb HCH in the edible part for human and if different species of vegetables behave differently

we aim to study the behavior of shrubby and arboreal and herbaceous edible species





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This Action plan will take advantage by the aforementioned Policy instrument resources which will mainly concern forages or pastures

#### to sample and analyze edible plants for human











This action plan aims to offer <u>KNOWLEDGE</u> on the presence and concentration of contaminants on edible plants for the best management practices for agricultural in polluted areas.

This information will support the regional Authorities in taking decisions about mantain or remove, at least partially, the ban to some agricoltural activities









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# Methodology

- 1. Request to the Region for the Authorization to enter in public and private territories
- 2. Collection of spontaneus edible vegetables, including fruits from trees and shrubs
- 3. Request to the Region for the Authorization to plant experimental vegetable gardens (with the help of local farmers)
- 4. Collection of grown vegetables
- 5. Analysis for HCH and other possible contaminants (depending of results of soil characterization)
- 6. Reporting to the Region





#### Opportunity

# Our action plan wants to give some results on the uptake of HCH by different plant species grown on polluted areas

#### Constraints

The amount of data that we will be able to produce is <u>conditioned</u> by the presence of spontaneous species since cultivation has been prohibited and by the willingness of farmers to plant some vegetable species for experimental purposes.





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Thank you!

Questions welcome