



LIFE + Environment Policy & Governance

ANNEX B.5

Deliverables B.5: Management Plans for IMS Control

August 2015

LIFE CONOPS (LIFE12 ENV / GR / 000466)

**Development & demonstration of management plans against
- the climate change enhanced - Invasive Mosquitoes in S. Europe**



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The current report presents the detailed design of management plan to control IMS (Invasive Mosquito Species) part of LIFE CONOPS project. It is focused on *Aedes albopictus* as the IMS already well established both in Greece and in Italy, to which the terms “control” therefore apply as the only option we currently have to reduce the density of the species.

Others IMS not present yet in the two countries or present in a limited areas may deserve specific and different approaches.

The document has been structured as a comprehensive practical technical guideline to assist local authorities in organizing the field activities in the best possible way.

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SUMMARY

BACKGROUND: *Aedes albopictus* is the IMS already well established both in Greece and in Italy, causing high concern in public health for its vectorial capacity of pathogens causing human diseases such as Dengue, Chikungunya and Zika viruses. It is therefore necessary that the responsible authorities implement specific vector control plan aimed at the reduction of the mosquito population density, possibly below the epidemiological and the noxious thresholds. This objective results difficult to achieve because of the capacity of the species to develop in urban areas exploiting a number of artificial breeding sites especially present in private properties. Therefore this document has been structured as a comprehensive practical technical guideline to assist local authorities in organizing the vector control activities in the best possible way.

RESULTS: The management plan to control *Aedes albopictus* is a complex system that includes coordinated actions to adequately face the most important aspects involved into the problem such as:

- standardized quantitative monitoring by specific ovitraps
- the mosquito population density data
- the local community should be involved in the control campaign in private areas
- standard control measures in public areas should be organized regularly using larvicides in the road drains to cover the whole breeding season.
- an emergence vector control plan should be prepared and responsibilities clearly assigned to the stakeholders to face the epidemic risk in case of importation of infected persons;
- attention is also devoted in a pilot door-to-door control strategy to be adopted locally in case the regular control campaign does not achieve sufficient results.

Specific annexes to practical organize the activities such as: standard operational procedures for ovitraps field managements; standard operational procedures for eggs counting; quality control procedure for the *Aedes albopictus* monitoring; mayor ordinance scheme; standard operational procedures for emergence vector control operations in case of Dengue, Chikungunya and Zika cases detection; quality control procedure for larval treatments efficacy in road drains; standard operational procedures for bioassays on insecticide sensibility; template for public tender for PCO, are also provided.

CONCLUSIONS: In this document all the information required to perform an adequate response to the problems caused by *Aedes albopictus* in the Mediterranean basin are organized in a simple and practical way to assist the technical responsible. Attention is also devoted to communication aspects and actions to be adopted in case of emergency.