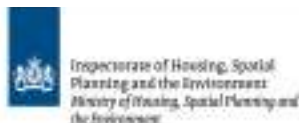


CAPACITY FACT SHEET

The Dutch Environmental Assessment Module (EAM)



WHAT IS THE EAM?

The Environmental Assessment Module (EAM) is a mobile laboratory consisting of two fully equipped off-road vehicles that may be used in emergencies involving hazardous substances. It is designed to obtain information about environmental contamination and related health effects due to exposure to toxic chemical compounds caused by an environmental or natural disaster. The EAM is mainly used to assess the medium- and long-term effects of such disasters.

The EAM is financed and commissioned by the Dutch Ministry of Foreign Affairs and the Ministry of Housing, Spatial Planning and the Environment. The National Institute of Public Health and the Environment (RIVM) is responsible for managing and using the EAM.

The main aim of the EAM is to support national authorities and involved response organisations during and after an environmental emergency or a natural disaster with implications for health and environment. The support consists of:

- Sampling, detection and on-site analysis of toxic compounds
- Integrating and scientifically interpreting the data gathered
- Converting this data into exposure or risk assessment that may be used by national authorities and response organizations

WHEN IS THE EAM MOBILIZED?

The EAM will only be deployed at the request of the UN or other international organisations requiring use of its services. Countries themselves may also request the Netherlands for help directly. The decision whether to deploy the EAM rests with two Dutch ministries jointly. Taking into account the size of the disaster, the damage and the need for assistance, the Dutch Ministry of Foreign Affairs will decide whether an EAM mission is needed. The Dutch Ministry of Housing, Spatial Planning and the Environment will then assess whether the operation is feasible.

The technical unit is built up in such a way that only parts of the module can be transported, depending on situational demands for different types of sampling, measurements and analysis.

WHAT DOES THE EAM DO IN THE FIELD?

The sampling, detection and analysis equipment is primarily used to determine concentration levels of chemicals to be used in a risk assessment. The EAM can be supported by experts from Dutch organizations operating in a back-office. This expertise comprises of:

- Performance of model calculations: dispersion of compounds in air, dispersion of compounds in water, exposure modelling
- Information about physical-chemical properties of compounds
- Toxicological information
- Health and ecological risk assessment
- Specific expertise about air, water, soil or food contamination
- External safety risks

Besides operating the module, the EAM staff can also assist local organizations by providing advice or technical assistance, for example in performing analysis in laboratories available in the country or area where the disaster has occurred.

WHAT RESOURCES DOES THE EAM HAVE?

The EAM will deploy with 3-4 staff depending on the situation. The team is not fully self-sufficient and some subsistence and operational support will be required.

Except for the technical unit containing sampling, detection, analysis equipment, tools and transportation facilities, the module contains personal safety equipment and support equipment such as communication, ICT facilities for data processing and transfer, power generation, and other tools. All equipment can be stored in dedicated aluminium boxes for safe transportation to the affected site. The equipment boxes can be transported by air using commercial flights or an aircraft from the Dutch Ministry of Defence, or by land in the two four-wheel drive vehicles if the emergency occurs within Europe.



The Dutch Environmental Assessment Module (source: RIVM)