ESTABLISHMENT OF EARLY WARNING SYSTEMS

OBJECTIVE

Avoid or reduce the damage caused from climate-related hazards.

DESCRIPTION

Early warning systems (EWS) are key elements for climate change adaptation and disaster risk reduction that aim:

- to actively involve people and communities at risk from a range of hazards;
- to facilitate public education and awareness about risks;
- to disseminate messages and warnings timely and efficiently;
- to ensure that there is a constant state of preparedness and that early action is enabled.

The significance of an effective early warning system lies in the recognition of its benefits by local people. Early warning systems include detection, analysis, prediction, and then warning dissemination followed by response decision-making and implementation. Such systems are in place, in many parts of the world, to monitor, forecast and warn people about e.g. tropical cyclones, floods, storms, tsunami, avalanches, tornadoes, severe thunderstorms, volcanic eruptions, extreme heat and cold, forest fires, drought, etc. To be effective and complete, an early warning system needs to comprise four interacting elements namely: risk knowledge, monitoring & warning services, dissemination & communication and response capability.

EXPECTED RESULTS

A successful EWS saves lives, infrastructures, land and jobs and supports long-term sustainability. Early warning systems aim to assist public officials and administrators as well as private sector actors, communities and individuals in their planning, in the long run, saving money and protecting economies.

RESULT INDICATORS

Number of people reached.

INVOLVED ACTORS

International, national and local governments, local communities.

EXPECTED TIMELINE FOR ACTION

- Short term (1-4 years)

BEST PRACTICES

- Austria
- Austria
- Germany
- UK

- Belgium
- Norway
- Macedonia
- Slovakia
- Slovakia
- Hungary
- Switzerland
- Portugal
- UK
- Austria

CRITICALITIES

Critical issues include: limited geographical or temporal resolution, lack of evaluation of predictive validity, incorrect use of an early warning system that could result in significantly increasing the impacts for the affected population, public understanding of and trust in the system.

SCOPE OF THE ACTION

- Adaptation

TYPE OF PROPOSED ACTIONS

- Soft

SECTOR OF ACTION

- Agriculture / Forests / Land use
- Coastal management
- Water resource management

CLIMATE IMPACTS

- Drought
- Extreme temperatures

IMPLEMENTATION SCALE

- Municipality
- Region / Country
- Other

SOURCE

https://climate-adapt.eea.europa.eu/metadata/adaptation-options/establishment-of-early-warning-systems