SOCIO-ECONOMIC BENEFITS
OF METEOROLOGICAL AND HYDROLOGICAL SERVICES

CASE STUDY

THE ECONOMICAL BENEFITS OF THE FORECAST OF HAIL ON THE TERRITORY OF THE REPUBLIC OF MOLDOVA

Item	Description
Sector	Convective phenomena forecasting
Sub-sector	Hail forecasting
Case Study Name	The economical benefits of the forecast of hail on the territory of the Republic of Moldova
Case Study Description	This study refers to the forecast of hail, that causes a great amount of damage to the harvest, and consequently, due to the fact that Moldova is an agricultural country, to the economy of the country. It reflects the statistical data for the last 10 years and a description of the local characteristics of the hail forming processes.
Location	The Republic of Moldova
Tools Employed	The data of the national meteorological observation network and the information from the national anti-hail authority, a local calculation method for weather elements and the data on the damage caused by the hail from the Department for Exceptional Situations
Description of Application	- the information used for the calculations include the surface meteorological data and the upper air data; - the local method is based on empirical relations between the probability and the dimension of hailstone and the parameters of convection; - for the analysis of the quality of the forecast, a complex of data received from the national meteorological observation network, the national anti-hail authority and the data on the damage caused by the hail from the Department for Exceptional Situations is used.
Outcomes of Application	The statistical data obtained as a result of the analysis include a description of the area of spreading of hail, of the synoptical premises for hail forming, the damage caused and information on the active influence on the atmospherical processes

Cost/Benefits	Hail causes considerable damages for the economy of any country, especially for a country with mainly agricultural economy, like Moldova. In spite of the existence of an anti-hail authority in Moldova, the material loss caused is comparable to the annual budget of the country. The impacts of these phenomena in agriculture and civil protection can be reduced if there is a good description of the conditions of forming of hailstone, in meteorological and spreading area matter, and a timely warning system.
Characteristics of the Case Study	Brief description of the local methods of forecasting of hail
Consultation Mechanisms	Consultations between specialists of the State Hydrometeorological Service, the National Anti-Hail Service and the Department for Exceptional Situations
Structural Interface	None
Delivery Mechanism	Provided in electronic and printed format
Feedback Mechanism	None
Review Mechanism	None
Other	None
Lessons Learnt	The impacts of hail upon the economy of the country can be reduced if there is a good description of the conditions of forming of hailstone, in meteorological and spreading area matter, and a timely warning system. Also, it became clear that a tight collaboration between the specialists of different facilities involved in the forecast, active influence and hail mitigation can help minimize the impact in civil protection.
Best Practice Advice	Detailed case studies to reflect the complex of hail forming processes
Possible Future Advances	Including the local formulas in a mesoscale model
Comments	None
URL	None
Other	None