



World Meteorological Organization  
Working together in weather, climate and water

# Regional Association VI, Forum Hydrology, Koblenz May 8 – 10, 2012

MAIN ACTIVITIES OF THE NMHS OF  
GEORGIA IN THE SPHERE OF  
HYDROLOGY

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# STRUCTURE OF THE NATIONAL ENVIRONMENTAL AGENCY

DEPARTMENT  
OF HYDROMETEOROLOGY

DEPARTMENT  
OF ENVIRONMENT POLLUTION  
MONITORINGO

DEPARTMENT  
OF GEOLOGICAL  
DISASTERS

BRANCHES OF THE AGENCY

ADJARA

KOLCHKHETI

SAMTSKHE-  
JAVAKHETI

KARTLI

KAKHETI

STATIONS  
POSTS  
LABORATORIES

STATIONS  
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# FUNCTIONS RELATED TO HYDROLOGY

- **On the territory of Georgia and Black Sea in the field(s) of meteorology, hydrology, operational oceanography, environmental monitoring and geodynamics carrying out observations, analysis, forecasting, research and provision with products population, governmental bodies and various sectors of economy;**

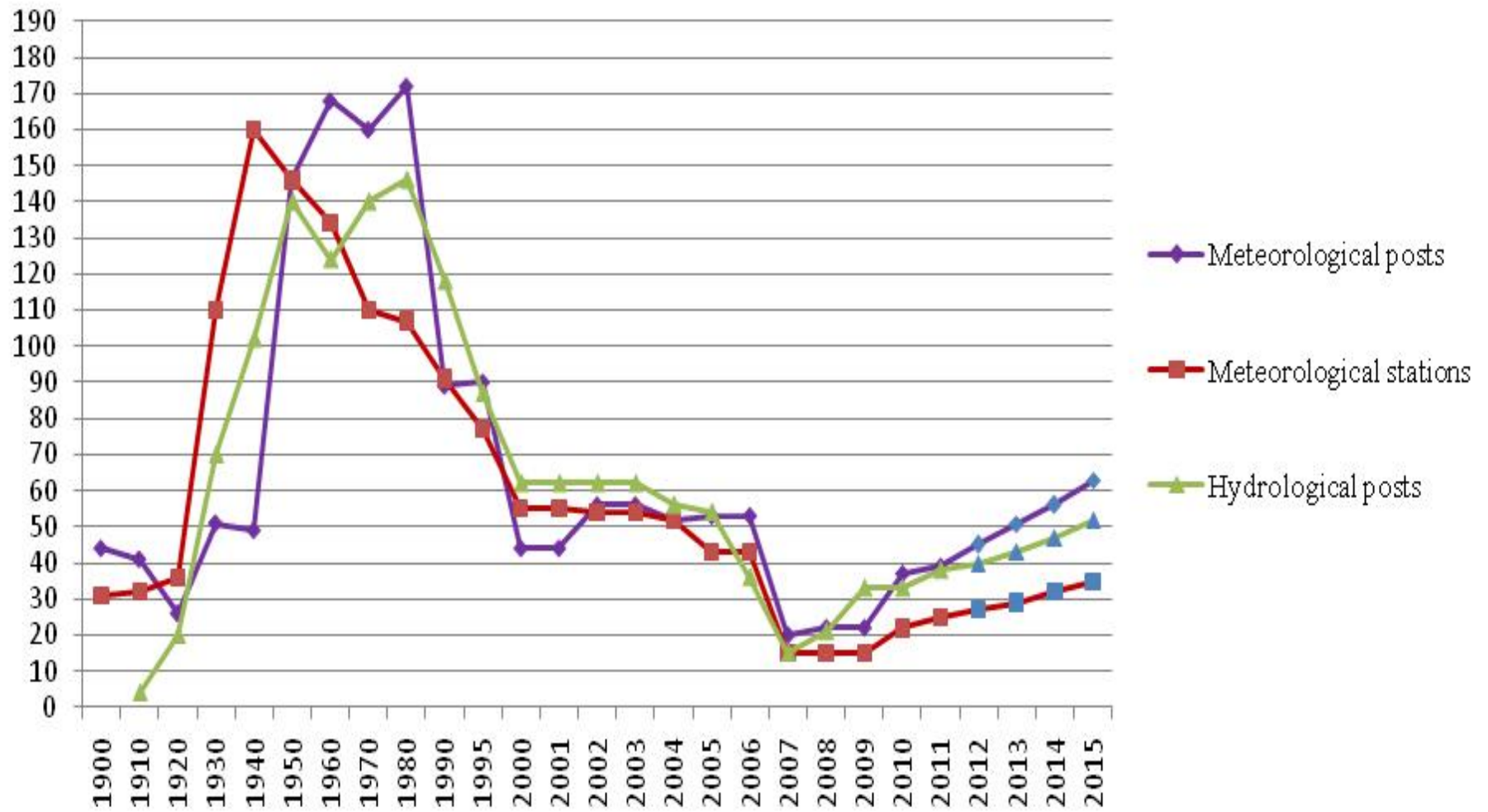
Monitoring over hydro and morpho dynamic processes, permanent mapping works, identification of risk zones and forecasting of floods, flash-floods, draughts, forecasting coastline development in the coastline zone of the sea;

- **Issuing warnings in case of disasters of meteorological, hydrological and geodynamic origin and in occasion of high and extreme pollution of the environment;**
- **Fulfillment of international commitments under various conventions and bilateral and multilateral agreements in the sphere(s) of meteorology, hydrology and environmental pollution monitoring in frames its competence.**

*REMARK Functioning of the Agency is not possible without daily connections with the NMHSs and other similar services and international organizations (i.e. interchange of operational information, including forecasts and warnings etc.).*



### Dynamics of Changes of Hydrometeorological Observation Network Points



# BIGGEST SUCCESS OF THE NMHS

- **The biggest success of NMHS of Georgia related to hydrology it is the prevention of catastrophic flood in the main river of South Caucasus in 2006. Disastrous flood was forecasted several days (5) ahead. The flood seemed to be record but due to the forecast effectiveness it was predicted well. It gave possibility to free the reservoir on r. Aragvi the main tributary of r.Kura. It prevented the possible big losses.**
- **The main failure in the operational practice of Georgia is the forecasting of Flash Floods in Georgia. Flash floods occur sufficiently frequently on the territory of Georgia due to Georgia's diverse topography and they have severe impact on the population property and lives. Below are some examples of flash floods example occurred in small river in Georgia**







# INTERNATIONAL CO-OPERATION

- In the above-mentioned spheres (meteorology, hydrology, Climate Change,) co-operation were carried out with several below listed programs and organizations:
  1. NATO Programme for Peace;
  2. UNEP;
  3. US AID;
  4. WB;
  5. TACIS;
  6. GEF-UNDP,
  7. EU FP (5,6,7,) Programmes: ARENA, ASCABOS BS SCENE, UBSS etc.

On going projects: Governments of Czech, Finland, Slovak,  
Adaptation Fund



# ENHANCED PREPAREDNESS OF GEORGIA AGAINST EXTREME WEATHER EVENTS(1)

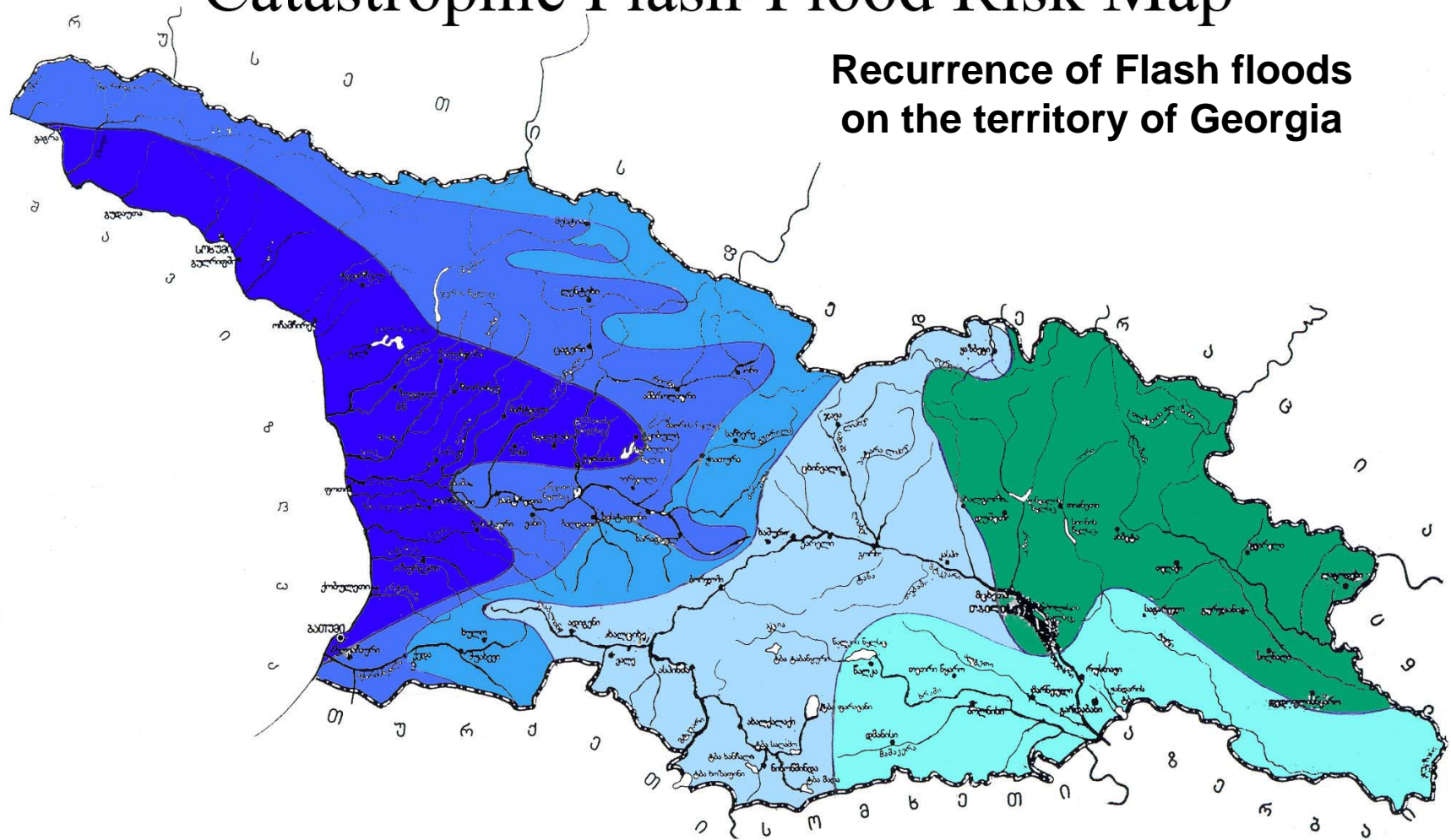
PROJECT OF DEVELOPMENT COOPERATION BETWEEN THE  
CZECH REPUBLIC AND THE REPUBLIC OF GEORGIA

“ENHANCED PREPAREDNESS OF GEORGIA AGAINST EXTREME  
WEATHER EVENTS” 2011 – 2013 (**CZECH DEVELOPMENT  
AGENCY 17/05/2011**).

- The overall objective of the project is to contribute to a mitigation of the negative impacts of extreme weather events on the population, the public and private property in Georgia. Its successful realization would prevent losses of lives and reduce the negative economic and material impact on society. Timely deliveries of precise weather forecasts and warnings in case of an extreme weather event are the basic information (for decision makers) for the prevention of, preparedness for, and managing and mitigation of natural

# Catastrophic Flash-Flood Risk Map

Recurrence of Flash floods  
on the territory of Georgia



West Georgia

Occurrence Probability %



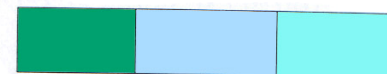
18

9

6

East Georgia

Occurrence Probability %



14

7

5

THANK YOU  
FOR YOUR KIND  
ATTENTION!