



NATIONAL INSTITUTE OF METEOROLOGY AND
HYDROLOGY- Bulgarian Academy of Sciences

THE NIMH ACITVITIES

During the period Sept.2008-Nov.2009

ICEED, Ljubljana 2009



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Brief Historical Reference

The end of the romantic period of meteorology was in 1850 when the first instrumental observations in Bulgaria were made in Koprivshtitsa (according to Nayden Gerov in the archive manuscript Temperatures in the Village of Koprivshtitsa in the Year 1850). Several stages of the development of the Bulgarian hydrometeorological service can be outlined.

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NIMH – Main Activities and Tasks

NIMH at BAS is the major Bulgaria research institute in meteorology, agrometeorology, hydrology, and water resources assessment, performing research-related practical application.

NIMH carries out an efficient exchange of knowledge both with the industry and with the general public by means of all kinds of national media.

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The programs of the World Meteorological Organization (WMO) and the best achievements of related hydro-meteorological services lead us in our daily work, which is being performed in compliance with the Articles of Association of BAS, the Rules and Regulations of NIMH, the requirements of the Ministry of Education and Science, and the updated documents of the Commission of the European Communities.

NIMH is the official representative of Bulgaria in WMO, EUMETSAT, EUMETNET (OPERA), UNESCO's International Hydrological Program, the International Association for Danube Research, etc.

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Scope of Activity of NIMH

Current priorities of the scientific activities and practical applications

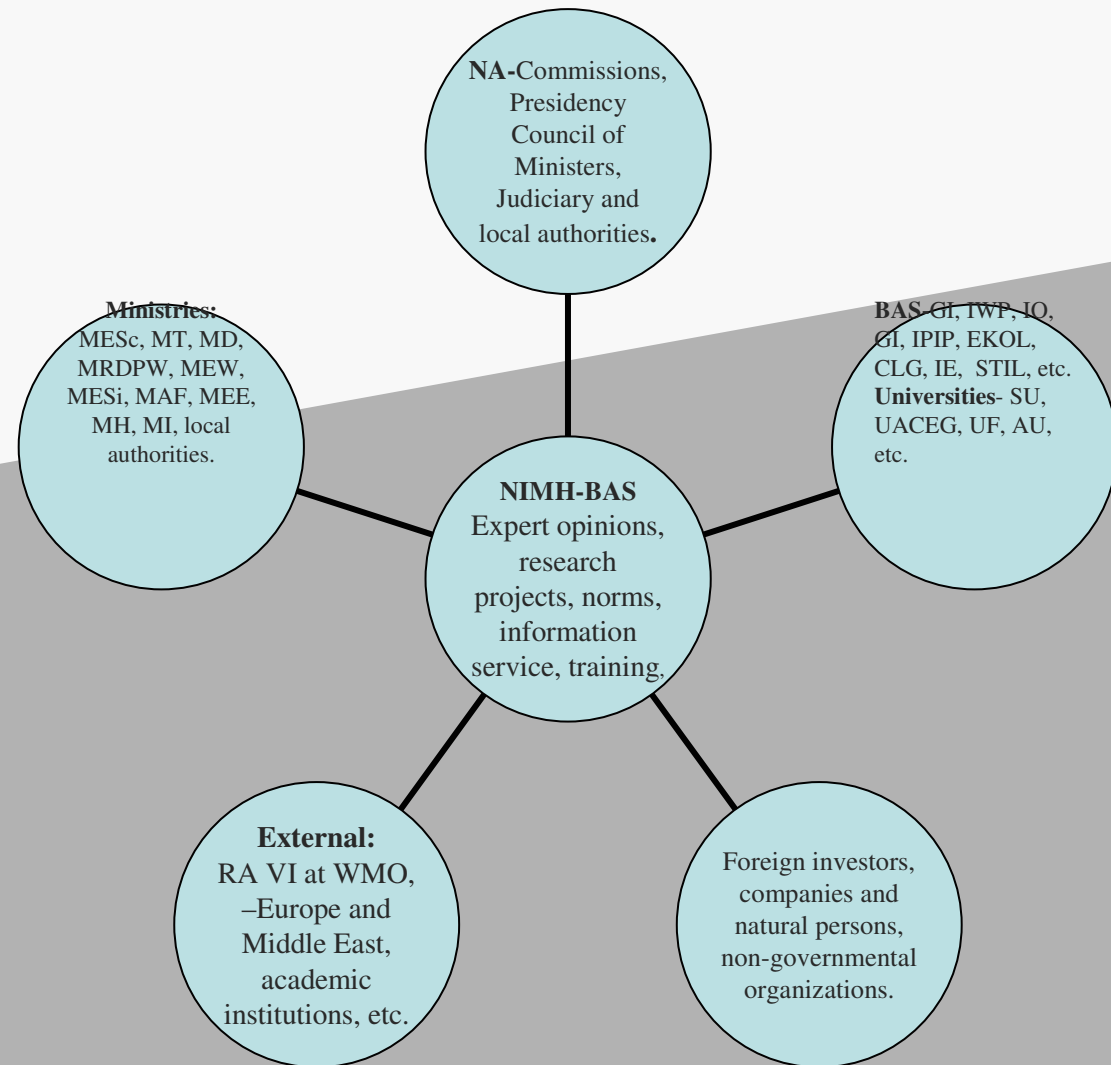
Analysis and assessment of hydrometeorological resources: climate, agroclimate, and water resources, their dynamics and change in relation to the global climate change;

Studies of the changes in the atmosphere-hydrosphere system, the climate, the tools and technologies for monitoring, prevention, and reduction as a result of environmental pressure, air and water pollution, and risk from the ever more frequent hazardous natural phenomena;

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International Co-operation and Participation in International Projects(Framework programs of EC, NATO,UNESCO, etc.)

The Institute takes an active part in EC Framework Programs V, VI, and VII and is open for research workers from Europe and other countries through joint projects and a modern Training Centre. On the other hand, **through its activities NIMH implements at a national level our international commitments such as the United Nations Framework Convention on Climate Change and the Kyoto Protocol, the Convention to Combat Desertification, the EU Water Initiative, the Contribution of the Intergovernmental Panel on Climate Change, and the Earth Monitoring Initiative.**

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Education – PhD Students and Teaching

The scientists at NIMH who teach students and prepare specialists and PhD students at universities in 2007 are 5. They deliver lectures, hold seminars and practical exercises.

Major Scientific Publications

NIMH edits the **Bulgarian Journal of Meteorology and Hydrology** (BJMH) which is distributed in foreign countries. Every month the **Monthly Hydrometeorological Bulletin** is published on-line.

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MAIN STRUCTURE, ACTIVITIES, AND ACHIEVEMENTS

- Department of Meteorology**
- Department of Hydrology**
- Weather Forecasting Department**
- Department of Composition of the Atmosphere and the
Hydrosphere (CAH)**
- Division “Information Center”**
- Telecommunications Division**
- Central Meteorological Observatory Division**
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Regional Centers of NIMH

The regional centers (RC) are structural units of NIMH at a regional level performing scientific and applied research, as well as operational activities in meteorology, hydrology, agrometeorology and water resources. There are four NIMH Regional Centers: in **Plovdiv, Varna, Pleven, and Kyustendil**. The structure of the units in the Regional Centers corresponds to the one in the central office in Sofia.

The Regional Centers employ **440 staff, including 2 senior research associates, 13 - junior research associates, and 2 Doctors of Science** who are heads of units.

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EUMETSAT

The National Institute of Meteorology and Hydrology (NIMH) of Bulgaria initiated and prepared the first training workshop on “MSG land surface applications: Drought & Fires”, funded by EUMETSAT and held in the Training Centre of NIMH in Sofia, from 7th to 10th September-2009.

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**The First EUMETSAT ‘Drought & Fires’
Workshop was conducted as a forum for exchange
of knowledge between primary satellite data users in
South-Eastern European countries, experts in
product development and trainers from a number of
satellite agencies and meteorological institutions:
EUMETSAT, Land SAF Consortium, NOAA/NESDIS,
NASA and University of Maryland, National
Meteorological Institutions of Bulgaria and Portugal,
National Space Research Institute of Brazil.**

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Six representatives of the National Meteorological Institutions in the Balkans (Albania, FYROM, Greece, Montenegro, Romania, Turkey) participated in the Workshop. The field of their work is mainly weather forecasting, remote sensing and one participant is working in the field of climate monitoring.

The Workshop is a contribution to the activities in response to the requests of National Meteorological Services in South-Eastern Europe on training, expressed during the information workshop organized by EUMETSAT in Montenegro in June 2009.

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European Centre for Medium-Range Weather forecasts

Under an agreement signed on July 22 2009 in Reading, meteorologists of the NIMH-Bulgarian Academy of Sciences (BAS) are to have access to meteorological data and forecasts from the European Centre for Medium-Range Weather Forecasts (ECMWF). The last step is the approval by our Parliament.

Data from the ECMWF which is UK-based will to help Bulgarian meteorologists improve medium and long-term weather forecasts.

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The telecommunication centre

It continues the activities to connect and support Podgoritsa and Sarajevo to the Global Telecommunication network by means of the Sofia regional centre.

These activities were highly appreciate during the RA-6 meeting-2009-Brussels.

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Bilateral agreements.

Recently it had been started a procedure to sign an bilateral agreement with the Serbian Met office. The first draft gives consideration to the topics by our colleagues.

Also we are intend to renew the agreements with FYROM and Albania and to start negotiations with the other ones on a base of mutual interest.

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International Audit of all Institutes of BAS

The European Science Foundation (ESF) was established in 1974 to provide a common platform for its Member Organizations to advance European research collaboration and explore new directions for research.

European Federation of National Academies of Sciences and Humanities

It is an independent organization, owned by 80 Member Organizations, which are research funding organizations and research performing organizations, academies and learned societies from 30 countries.

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Overall summary of the Institute-level scores

The scores given to all Institutes for the three criteria are summarised.

Table 1: Scores for Institutes in the Earth Sciences
Division of the BAS

National Institute of Meteorology & Hydrology

Quality and Productivity-5

Socioeconomic Impact-5

Prospects-5

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In total, the **NIMH has 730 employees. The academic staff consists of 42 senior research fellows (Professors and associate Professors) and 42 junior research fellows (Dr Sc and PhD).** The supporting staff consists of 646 employees. 556 employees are working outside the central office.

The governing body consists of a Director General, 3 Deputy Director Generals and 1 Scientific Secretary.

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The International evaluation shows that the NIMH is functioning well both at the national and international level.

The products and services it delivers are numerous and highly relevant for the functioning of the Republic of Bulgaria and the wellbeing of its inhabitants.

The research carried out in support of its activities is of good quality and well integrated in the European and global context.

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The scientific research underpinning these activities covers a broad range of subjects. 53 projects, out of a total of 179 projects carried out in the period 2004-2008, were financed on BAS own budget or with additionally funding of the National Science Fund (NSF) of Bulgaria.

During the same period, 47 projects were financed by contracts with ministries and/or private companies. The largest amount of projects (55) was financed according to contracts and programs of EU, NATO, UNESCO or other international bodies.

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The total number of publications during the last 5 years amount to 517 or a mean of 104 publications per year.

There were 65 publications in – generally - peer-reviewed international journals and 43 in Bulgarian journals. The publications in the form of abstracts or proceedings of international congresses or symposia amount to 252, those in Bulgaria to 91. Further 18 publications of books or chapter in books outside Bulgaria and 9 in Bulgarian were also noted. The international recognition is therefore good.

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Overall Strengths and Weaknesses

NIMH possesses highly qualified and skilled research staff both in the field of meteorology and climate as in the domain of hydro- and agro-meteorology.

The average age of the personnel is over 53 years, so there is a serious gap between generations.

NIMH has a significant output and is fairly well integrated in Europe and elsewhere. However, the exchange with European scientists is in one direction.

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THANK YOU FOR YOUR ATTENTION





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