

#### CENTER FOR ECOLOGICAL-

#### NOOSPHERE STUDIES NAS RA

Modernization of Environment Protection Studies Programmes for Armenia and Georgia



Viterbo-Lisbon,
30<sup>th</sup> March – 7<sup>th</sup> April, 2019

THE CENTER FOR ECOLOGICAL-NOOSPHERE STUDIES **NONGOVERNMENTAL LIBRARY DIRECTOR ORGANIZATIONS: SCIENTIFIC**  Young scientists board **EXECUTIVE BOARD**  Trade Union Committee **PERSONNEL Environmental Geochemistry TEMPORARY Educational Department Department WORK TEAMS** • Environmental Protection **Bioenergy and Fodder** and Nature Management Grants **Quality Department** Chair of the International Agreements Scientific-Educational **GIS and Remote Sensing** Target Center of NAS RA **Department** • UNESCO Chair on «Education for INFORMATIONAL Radioecology Department Sustainable ANALYTICAL CENTER **Development**» FOR RISK ASSESSMENT **OF FOOD CHAIN** MS course ANALYTICAL LABORATORY PhD course **Trainings** 



# The Center for Ecological-Noosphere Studies NAS RA The Informational - Analytical Center For Risk Assessment of Food Chain

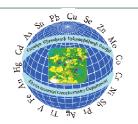


#### Main activities

- Biotechnological risks
- Determination of environmental contaminants:
   heavy metals, pesticides in food stuff
- Risk assessment of adulteration
- Implementation of localization of accepted
   risk-based quality management systems (HACCP, GAP, GHP, GMP)
- Total dietary studies (TDS)



### The Center for Ecological-Noosphere Studies NAS RA Environmental Geochemistry Department



#### Main activities

- Eco-geochemical assessment
- Geochemical survey and mapping
- Environmental and health risk assessment
- Revealing risk groups in the population
- Hydrochemistry, surface water quality assessment
- Environmental geochemistry and food safety

**URBAN** 

**MINING** 

AGRICULTURAL

Potentially toxic elements, Pesticides

in soil, water, dust, bio substrates etc.



### The Center for Ecological-Noosphere Studies NAS RA Radioecology Department



#### Main activities

- Radioecological monitoring
- Radionuclide migration in the environment
- Radon monitoring
- Radiological hazard and risk assessment
- Detection of naturally occurring radionuclides in construction materials, foodstuff, mineral water, etc.
- Nuclear forensics

NATURAL

NORM-RELATED
INDUSTRY

Naturally occurring and artificial radionuclides

in soil, water, dust, precipitation foodstuff etc.



#### Center for Ecological-Noosphere Studies NAS of Armenia



#### **GIS and Remote Sensing Department**

In situ and remote observation systems of the main environmental compartments (water, soil and plants).

**Environment and** food chains risk assessment

Developing Earth observation and information systems for site specific decision – making

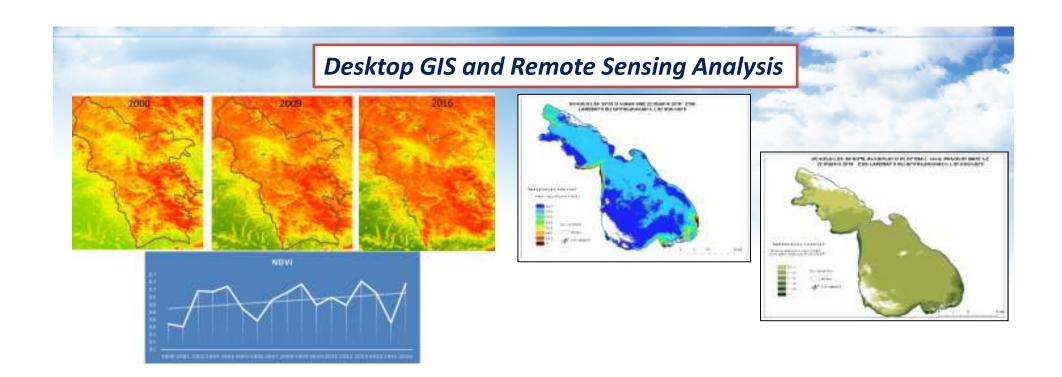
**Detection and** prediction of land-use changes.



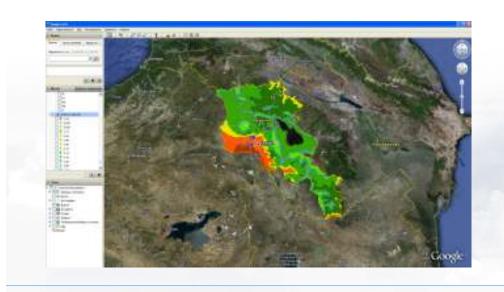
Improvement of the grasslands environment and quality of feedstuff.

Assessing and monitoring the impact of climate change on the productivity of ecosystems





#### Technologies for <u>GEOSPATIAL DATA</u> sharing and <u>BIG DATA</u> analysis





### National and regional experience through research partnership and international cooperation.



#### FP7 EcoArm 2 ERA



EU Cooperation Capacity Building of Center for <u>Eco</u>logical-Noosphere Studies of National Academy of Sciences of <u>Arm</u>enia: Towards Armenia's integration into the <u>ERA</u>

to reinforce the international research cooperation between CENS and ERA.

For this purpose,

Sustainable development strategy was defined and promoted for CENS focusing on the overall improvement of the institution's capacities, visibility, and competitiveness.

- University College Dublin, National University of Ireland (Ireland)
- University of Geneva, Institute for Environmental Sciences (Switzerland)
- GIRAF PM Services GmbH (Germany)





Deploying Armenian distributed Processing capacities for Environmental GEOspatial data (ARPEGEO)

**New Master Course "SDI and Data Management"** 

To build a state-of-the-art Spatial Data Infrastructure (SDI)

in order to efficiently manage and distribute environmental data and their associated metadata.





## The Center for Ecological-Noosphere Studies NAS RA

