

### THE CENTER FOR ECOLOGICAL-

#### NOOSPHERE STUDIES NAS RA

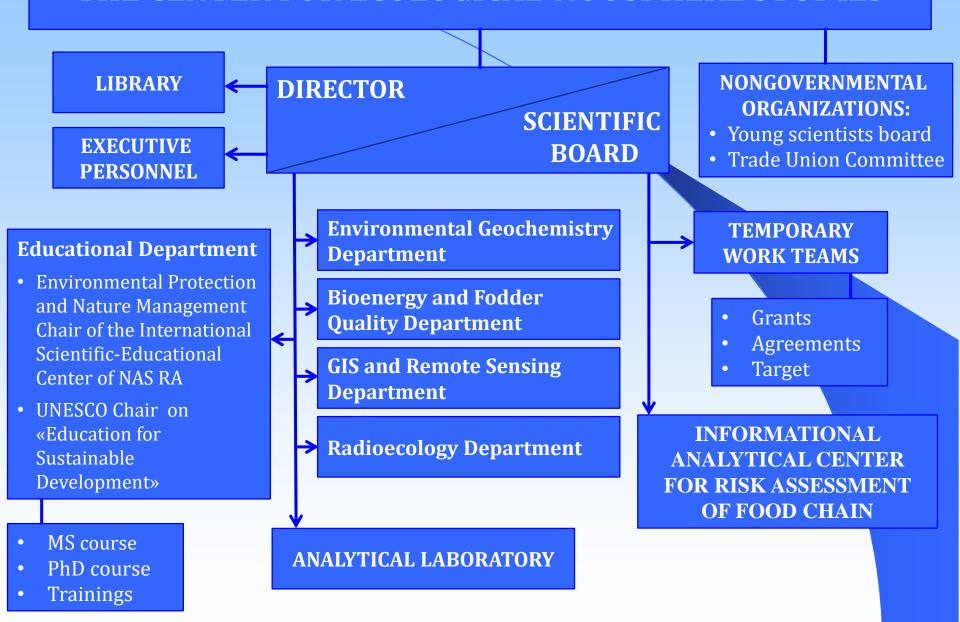
http://cens.am

### 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





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

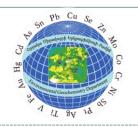


#### Main activities

- 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.

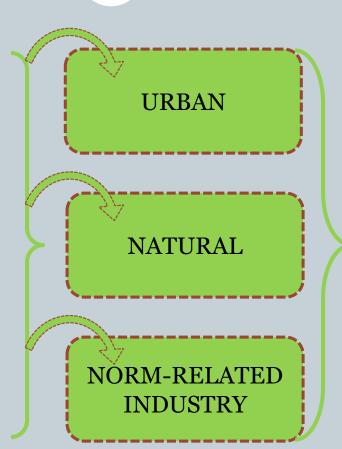


## The Center for Ecological-Noosphere Studies NAS RA Radioecology Department



#### 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



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.

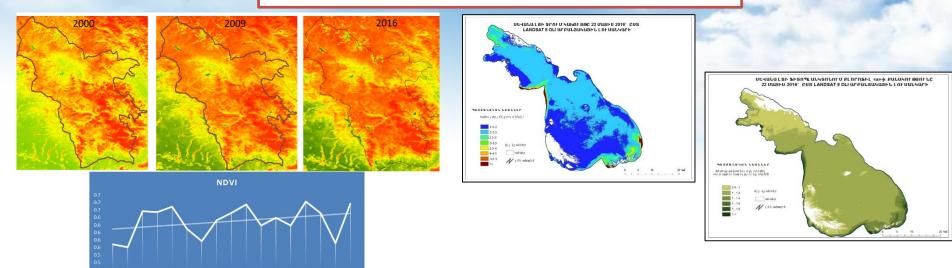


Improvement of the grasslands environment and quality of feedstuff.

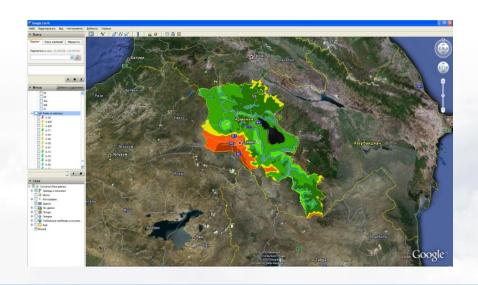
Assessing and monitoring the impact of climate change on the productivity of ecosystems



#### **Desktop GIS and Remote Senisng Analysis**



#### 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 in<u>to</u> 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

