

**EDUCATION CAMPAIGNS ON PROTECTION AND DEVELOPMENT OF
THE ENVIRONMENTAL RESOURCES INTENDED TO PUBLIC IN THE
NORTHEAST DEVELOPMENT REGION
- Educational Programme -**

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Resumé: Pour avoir une réponse éducationnelle aux grands essais du III-ième millénaire, l'article suggère un programme projet destiné pour l'instruction de la population en quelques catégories de la région de Nord-Est dans l'esprit d'un comportement en concordance avec l'environnement. Un argument consiste dans la faisabilité du projet suggéré.

1. Argument

1. To form and encourage a responsible and friendly environmentally behaviour represents one of the earliest *educational goals* of humankind that satisfies one of the major challenges in the dawn of this millennium.

- While continuous environmental degradation under (more or less consciously) direct and indirect human action, human civilisation finds itself confronted to maintaining and improving environmental parameters.
- 2. The themes of environmental protection/preservation
- are strongly supported by the *FP6* (priority *Sustainable development, global change and ecosystems*);
- have a special significance to Romania, that owns an exceptional natural and anthropological-cultural heritage that requires protection;
- have been crucial to the Moldavian area (the Northeast Development Region), as the latter has been disadvantaged not only economically, but also from the point of view of educational and instructional degree in terms of environment: the use of polluting and wear and tear technologies has resulted in environmental depreciation phenomena, that have been constantly displayed for the last 60 years while reaching sad records.

3. Opportunities in the Northeast Development Region: factors that may lead to environmental protection and increased pro-environment education of population.

- Use of non-conventional energy sources (solar radiation, wind energy, biogas) to provide environmental comfort (lighting, heating, preservation and production of diversified food);
- Practical achievement of some low-cost and reduced complexity facilities for the use and conversion of non-conventional sources;
- Appropriate design of dwellings in rural area;
- Achievement of some agricultural-related facilities (greenhouses, food dryers).

2. Localisation

- Provider of educational services: “Alexandru Ioan Cuza” University of Iași, Faculty of Physics and Faculty of Geography and Geology
- Suggested area for programme implementation: characteristic and significant areas in the Northeast Development Region

3. Target Groups:

- Pupils in middle and secondary schools;
- Undergraduate students and both Master and doctoral students of the Faculty of Physics, Faculty of Chemistry, Faculty of Geography, Faculty of Biology, as well as students attending technical studies;
- Educators: teachers of Physics, teachers of Chemistry, teachers of Biology, teachers of Geography in pre-higher education;
- People not engaged in a gainful occupation (unemployed persons);
- People in economically and socially disadvantaged areas;
- People in the third age.

4. Programme Goals

General goals

1. To shape and stimulate a responsible attitude to environment.
2. To humanize relationships between human communities and natural structures.

Specific goals

1. To become aware of the impact the human act has on environment and sustainable development.
2. To become aware of the importance of knowing the environment dynamics

- and its impact on the social-economic structures.
3. To educate educators/trainers towards a systemic conception on environment.
 4. To connect environment trainers, with a strong impact on the sustainable development in agreement with the EU norms.
 5. To stimulate a militant attitude to students and pupils in approaching environmental themes and to generalize an environmentally friendly behaviour.
 6. To fight against indifference, ignorance and apathy as related to human communities in economically and socially disadvantaged areas (certain rural areas, some industrial sites experiencing decline and high unemployment rates, some calamity-affected areas, etc.), in terms of environmental themes.
 7. To efficiently use traditional energy sources (mineral fuel, wood).
 8. To implement and to use as efficiently as possible some unconventional energy sources (solar energy, wind energy, biogas), while focussing on isolated rural areas.

5. Programme steps and stages

Stage I. Documentation

- Step 1. Consult specific documents and literature.
- Step 2. Identify areas to implement the programme.

Stage II. Assessment of the educational/training level and producing the documentation

- Step 1. To provide for a general evaluation on the educational/training level of the target groups.
- Step 2. To produce the documentation on the environmental themes in the concerned geographic area.

Stage III. Implementation of the programme

- Step 1. To launch mass media campaign on environmental protection in middle and secondary schools.
- Step 2. To introduce fundamentals of environmental protection and to study thoroughly current information on it in higher education.
- Step 3. To provide for professional development on environmental protection themes to educators in pre higher education.
- Step 4. To provide for specialised training on earth science to university trainers.

Step 5. To launch mass media campaign on environmental protection in disadvantaged communities.

Step 6. To perform particular civic activities.

Stage IV. Dissemination of outcomes

Stage V. Assessment of the programme outcomes

6. Scheduled activities towards goal achievement

1. To gather information from
 - literature
 - available databases.
2. To locally identify
 - areas experiencing major environmental situations
 - categories of target audience.
3. To test the educational/instruction level of the target audience in terms of environment.
4. To produce documents on the environment and concerned protection measures in areas subjected to major anthropic hazards in the Northeast Development Region.
5. To produce supportive material for mass media campaigns.
6. To disseminate (in university laboratories) information on environmental protection in pre-higher education
 - schools
 - secondary schools.
7. To diversify and to study thoroughly environmental protection in *all* cycles of the university study programmes; to undertake necessary steps towards setting up/accreditation of a master programme in environmental science within the Faculty of Physics.
8. To continue/initiate environmental protection training of teachers in pre-higher education
 - in field training
 - training within university premises.
9. To provide attendance to concerned specialisation courses, summer schools and conferences by the university teaching staff involved in the programme.
10. To launch mass media campaign on environmental protection in
 - economically disadvantaged communities
 - socially disadvantaged communities.

11. To provide attendance to relevant events organized by different bodies: regional conferences under the patronage of the **European Commission**, in order to further prepare next programmes on environmental protection within the FP7.

- “**Francophone caravan for biodiversity**”,
- Events organized by the *Association of Young Romanian Ecologists in Iași*;
- Events occasioned by the *World Environment Day* (5 June); *World Ozone Day* (16 September)

12. Dissemination of outcomes

- Newspaper articles
- Radio and TV shows
- Attendance to scientific events/conferences
- Production of educational aids (CD support).

13. Actions aiming at assessing programme outcomes in terms of intended goals.

7. Programme expected outcomes

1. To involve educators in improving and completing middle and secondary school curriculum with fundamentals of the environmental science.
2. To introduce some relevant training and instructive elements with teaching activities (courses and seminars in fields of study not related to environmental issues).
3. To introduce some new courses and to provide a better orientation of the existing ones within the master programmes and the doctoral schools while following up-to-date issues on the environment.
4. To set up/gain accreditation of a master programme in environmental science at the Faculty of Physics and within the framework of the Bologna process.
5. To achieve an increased civic involvement of all intended target groups while initiating actions towards protection, qualification and conservation of the natural, social and economic capabilities.
6. To reduce indoor pollution while controlling smoking and emission of some chemical compounds.
7. To render sensible human communities in economically and socially disadvantaged areas in terms of maintaining and improving the parameters of the natural environment.
8. To diminish the electric power consumption through
 - More judicious use of the traditional sources;
 - Reduction of thermal losses (take specific measures on dwellings and establishments);

- Introduction of non-conventional sources-initiate implementation of technologies that better fit that geographical area in order to collect and use non-conventional energy (solar energy, wind energy, biogas).

8. Assessment of feasibility

Strengths:

- The specialist team (teaching staff) involved in the achievement of the programme is endowed with a high professional expertise in education/instruction and can provide for educational services that fit the intended goals.
- The concerned team has vast experience both in adult education – here included attendance to specific programmes (Rural Education Programme for Romania-PIR), and in education of children in middle and secondary schools through continuous cooperation and mutual action with teachers in pre-higher education.
- “Alexandru Ioan Cuza” University can make available to it preliminary material resources: logistic support (locations for conferences, laboratories, multimedia equipment, etc.).

Weaknesses:

- Citizens’ passivity (indifference) in knowing and solving community environmental problems.
- Insufficient information on the environmental management norms on a community, institutional level, etc.
- Insufficient knowledge of the national environmental law, as well as of the European law (priority *Sustainable Development, Global Change and Ecosystems in FP6*), from the perspective of the accession to the EU.
- Lack of instruction in producing/making arguments about environmental programmes financed by the European Union.

Opportunities

- The operational framework for scientific/educational partnership provided by the *Regional (Moldova) Research Consortium for Environmental Monitoring and Protection* (CCRMPPM) framework has been operational since 2004.

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