

Metsovion Interdisciplinary Research Center (M.I.R.C.) of the N.T.U.A.:

Implementing the theory of Worthliving Integrated Development

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Worthliving Integrated Development

The global economic, political, social and environmental crisis that all mankind is experiencing nowadays, has confirmed, deepened and extended the preconditions and processes for drafting a reliable plan for a “new” and “better” policy for development and environment. The basis of such a development and environment policy should be the implementation of an interdisciplinary and holistic approach, methodology and practice with the overall aim of a life worth-experiencing by all citizens of the world, at our common home, planet earth.

It is obvious that there is a need for radical change in the manner that global and trans-national organizations, governments and parliamentary oppositions, local administration units, social and scientific bodies, universities and research centres, collective expressions, groups and citizen initiatives, comprehend the philosophy, meaning, concept and content of development. This change consists of values, aims, plans and programs which can secure and prepare the ground for a better and peaceful life in every part of the planet. Such life cannot exist as long as the planet is dominated by a monocacy of profit, by exploitation of human beings and destruction of nature, all in the name of a supposedly “sustainable” development.

“Worthliving Integrated Development” has been defined and documented (Rokos 2007) as, “the appropriate economic, social, political, cultural and technical/technological development, simultaneously in *space* and *time*, which is always pursued in dialectical harmony and with respect toward human beings and their natural and cultural environment, in which they behave and act peacefully and creatively, as an integral part and not as owners, dominators and exploiters”. Worthliving Integrated Development is a reliable alternative, to the usually one-dimensional thematic/sectoral perspectives, forms, theories and practices of economic growth, which are founded mainly and/or exclusively on competitiveness.

The technological tools, the methodological and technical steps and the optimal policy practices for the pursuit of the Worthliving Integrated Development include, interdisciplinarity and the need for holistic approach, inventory, mapping and systematic monitoring of the elements, features, appearances, phenomena and facts, which constitute the - unique in each case - unity of natural and socio-economic space.

Methodology and action plan

The procedures and action plan for the development of an area/region, according to the principles of Worthliving Integrated Development and the holistic and interdisciplinary methodology follow the steps below:

- Interdisciplinary and holistic documentation, agreement and acceptance from the bodies relevant to Integrated Development initiatives, which principles, values, goals, actions and practices, are seen as an optimum choice.
- Conducting the necessary research and studies of Integrated Surveys of the natural and socioeconomic reality of each area/region (as well as the multidimensional relationships, interdependences and interactions) and systematic monitoring of their changes through time.
- Analysis of the data that constitute the natural and socioeconomic reality of the area (historical, statistical, bibliographical, climatic data, using results from properly structured questionnaires, records, views and proposals of habitants and bodies of the area, remote sensing data, data from specific research and studies etc.)
- Formulation and documentation of alternative scenarios for the Integrated Development of the area/region.
- Investigation of the problems, the implementation potentials and the objective restrictions of each scenario.
- Pre-assessment and evaluation of the balance between positive and negative elements of each scenario and choice of the optimum scenario for the Integrated Development of the area/region.
- Implementation of the optimum Integrated Development scenario for the area/region, constant monitoring, reporting and feedback.

Necessary requirement for the best, possible and effective serving of this undertaking, in local/regional level, is the apprehension, awareness, and understanding on behalf of every public, social or political stakeholder, that:

- Regional development cannot be the same for every region.
- The one-dimensional, concentrative and fragmentary economic growth of urban areas, does not simultaneously ensure the real development for the majority of the poor, less favoured peripheral regions, as well as for its habitants.
- The choice of a predatory exploitation of the “comparative advantage” of an area (such as the unique mountainous natural environment and culture), attracts only short-term profits, for certain groups of people.
- The implementation of governmental and EU strategies in local levels, should take into account the specific circumstances and peculiarities of the natural and socioeconomic reality of the specific region.
- Local administration units as well as citizen initiatives, should participate actively in the implementation of a local action plan, since they are the only ones who really know the actual potential, peculiarities, problems, limitations, priorities and expectations of their territory and its inhabitants.

Implementation of the theory in mountainous areas

Implementing the theory and practice of Worthliving Integrated Development, the National Technical University of Athens (N.T.U.A.) proceeded to the foundation of the *Metsovion Interdisciplinary Research Center (M.I.R.C.) of the N.T.U.A. for the protection and development of mountainous environment and local European cultures.*

N.T.U.A. M.I.R.C. was founded in 1993 by decision of the National Technical University of Athens Senate, following the proposal of then Rector Professor N. Markatos. It was set up in 1998, following the proposal of N.T.U.A. Rector Professor Th. Xanthopoulos, by decision of the 22nd N.T.U.A. Senate Meeting on December 23, 1998 and the proposals of the N.T.U.A. Rector Professor C. Moutzouris, by the decisions of the 9th Senate Meeting on September 21, 2007 and the 1st Extraordinary Senate Meeting on January 21, 2010.

N.T.U.A. Rector Professor N. Markatos appointed Professor D. Rokos as his proxy and representative, whom he asked, according to Senate Decision, to accept, on behalf of N.T.U.A., the donation of a 4,276 m² plot in Metsovo by the Municipality of Metsovo, toward the establishment of the N.T.U.A. M.I.R.C. The architectural study for the construction of N.T.U.A. M.I.R.C. premises in Metsovo has been conducted by Architect S. Karakostas and her associates, who won the 1st prize in the architectural competition held by N.T.U.A. A Technical Proposal for the construction of N.T.U.A. M.I.R.C. premises in Metsovo in the framework of the Regional Development Plan of Epirus 2000-2006 has been submitted to the Regional Administration of Epirus by Professor D. Rokos. Following appropriate lawful procedures, funding (700,000,000 GRD) for the construction of M.I.R.C. premises in Metsovo, through European Community Support Framework III, has been approved and additional funding (600,000,000 GRD) for the same project and the provision of scientific and other equipment has been approved by the Hellenic Ministry of Education and Religious Affairs. The construction was accomplished in 2005.

The installations of the N.T.U.A. in Metsovo (N.T.U.A. M.I.R.C.) include fully equipped laboratories, library, reception, accommodation and dining facilities to serve the needs of the educational personnel, researchers and students of N.T.U.A. and the University of Ioannina, who contribute to projects relevant to the aim of M.I.R.C.

Metsovo, a typical mountainous village in the Region of Epirus (the most mountainous Greek region and one of the most sparsely populated and poorest regions in the European Union/EU-15), is the homeland of the Founders and Great Benefactors of the N.T.U.A. The University community by supporting and participating in N.T.U.A. M.I.R.C.'s activities for the Worthliving Integrated Development of mountainous areas and specifically Epirus and Metsovo, aims to pay back a part of its dept.

Most Greek mountainous areas, like Epirus, are incredibly rich and in many cases virgin in terms of nature and culture, but face very serious socioeconomic problems i.e. poverty, abandonment, population ageing, unemployment etc., related to the unfavourable climate and topographic conditions prevailing which also affect productivity and accessibility (Michailidou and Rokos 2004, Papadimatou and Rokos 2004, Rokos 2004). The theory and practice of Worthliving Integrated Development seems to be the only suitable to deal with the multidimensional and interrelated issues of environment and development of mountainous areas. (Papadimatou and Rokos 2004, Rokos 2004, Rokos 2007).

The developmental programmes designed and implemented in mountainous areas should use holistic and interdisciplinary approach to promote simultaneously the economic, social, political, cultural and

technical/technological development, in dialectical harmony with the human and natural environment and with respect toward it.

In this framework, the interdisciplinary research team of the N.T.U.A. M.I.R.C. (consisting of engineers, agriculturalists, biologists, environmentalists and geologists with postgraduate studies on issues related to environment and development), under the supervision of its Scientific Responsible Prof. D. Rokos, implement and/or support scientific and research programmes, initiatives and actions to the direction of the Worthliving Integrated Development of Epirus and the Greek mountainous areas in general, such as the following:

MSc Environment and Development of Mountainous Areas

The interdisciplinary programme of postgraduate studies on “Environment and Development of Mountainous Areas” of the N.T.U.A., was launched in October 2008 and it is conducted in the N.T.U.A. installations in Metsovo (N.T.U.A. M.I.R.C.), where is also offered free accommodation for teachers, personnel and students. The philosophy of the programme is based on the fact that mountain development can only be substantially “Worthliving” if it is Integrated, thus going beyond sustainable development in theory and in practice. The basic methodology of the programme is build on the realization that, today’s multi-dimensional developmental, societal and environmental issues of mountainous areas, can only be dealt with a holistic, interdisciplinary consideration, investigation study and confrontation.

Interdisciplinary-Interuniversity Conferences of the N.T.U.A. and the N.T.U.A. M.I.R.C.

The N.T.U.A. and N.T.U.A. M.I.R.C. conferences are held every three years in Metsovo. They host scientific, research and technical/technological contributions addressing broader issues of technology, development, monitoring and protection of environment, culture and education, as well as specific issues of Metsovo, Metsovo Province and the region of Epirus by scientists, graduate engineers and members of the teaching and research staff of the National Technical University of Athens, the Universities of Ioannina and other Greek Universities.

The N.T.U.A. M.I.R.C. has already successfully organised six Interdisciplinary-Interuniversity Conferences (May 5-7, 1995: "*N.T.U.A. for Metsovo. Paying Back a Part of the Debt*", June 3-6, 1998: "*Technology, Culture and Decentralization*", June 7-10, 2001: "*The Integrated Development of Mountainous Areas. Theory and Practice*", September 23-26, 2004: "*The Integrated Development of Epirus*", September 27-30, 2007: "*Education, Research Technology. From the Past to the Future*", September 16-19, 2010: "*The Integrated Development of Mountainous Areas*"). Conference proceedings were published (or are in print) and each publication contains more than 50 research papers and studies in Greek and their abstracts in English.

Interdisciplinary Workshops, Seminars and Open Lectures

The N.T.U.A. M.I.R.C. in cooperation with the N.T.U.A., the University of Ioannina, the Aristotle University of Thessaloniki, N.T.U.A. M.I.R.C.'s Development Foundation, the N.T.U.A. Interdisciplinary Programme of Postgraduate Studies "Environment and Development", local authorities and other relevant organizations, conducts interdisciplinary workshops, seminars and open lectures in the N.T.U.A. installations in Metsovo (N.T.U.A. M.I.R.C.) dealing with environment and development issues of mountainous areas.

Database regarding Local Cultures and Environment in Mountainous Areas

The research team of the N.T.U.A. M.I.R.C. designed, created and periodically updates a database on the protection and development of Greek mountainous areas local cultures and their interactions and interdependencies with the mountainous environment. This database is a research initiative, via bibliographic and internet sources, which tries to identify the natural and socioeconomic reality, the cultural elements, the traditions, the techniques and craftsmanship, the local environment and biodiversity in every mountainous community of Greece. At the same time, this database is a way to investigate the interactions and interdependencies- and their changes through time-, between the natural and human resources, as well as the problems and needs that occur within these multi-dimensional relationships (Geronteli 2009).

Worthliving Integrated Development of Epirus

The potential of mountainous Epirus to be developed in a Worthliving and Integrated way, was studied based on questionnaires, completed by the local authorities and other local stakeholders. Critical conclusions came out of the study and can be utilised in future developmental programmes in the area.

The research team of the N.T.U.A. M.I.R.C. has also designed, created and regularly updates a database of researches, studies, books, articles and journals on the enhancement and protection of the local cultures of Epirus Region.

Other Activities

Other activities of the N.T.U.A. M.I.R.C. include the creation and update of electronic and printed archives of organizations, webpages, studies, research papers, research programmes and initiatives concerning the Integrated Development of mountainous areas, as well as contributions to relevant publications (i.e. Mountain Forum Bulletin) and participation in major networks for the development of mountainous areas, such as the Mountain Forum, MRI Europe (The Global Change Research Network in European Mountains) and SEEmore (South Eastern European Mountain Research Network).

Finally, the libraries of the N.T.U.A. installations in Metsovo (N.T.U.A. M.I.R.C.) and its branch in Athens contain numerous books on the environment and development of mountainous areas, at the disposal of any student, engineer, scientist, researcher, etc., interested in these issues.

Further information on N.T.U.A. M.I.R.C.'s work and activities are posted in its webpage <http://www.ntua.gr/MIRC/>



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