

The National Research Council (CNR) is the major public research organisation in Italy; its duty is to carry out, promote, spread, transfer and improve research activities in the main sectors of knowledge growth and of its applications for the scientific, technological, economic and social development of the Country.

To this end, CNR activities are organised into macro areas of interdisciplinary scientific and technological research covering several sectors: biotechnology, medicine, materials, environment and the territory, information and communications, advanced production systems, judicial and socio-economic sciences, classical studies and arts.

Increasing knowledge about the complex interaction between environment and health is a major objective and is recognized as a worldwide challenge that the Italian National Research Council (CNR) wishes to take up.

Our effort aims at transferring the knowledge developed by our research institutes on environment and health issues to our society, providing local, national and international governments with priorities to be applied in social policies.

In the EH sector, CNR carries out institutional R&D activities in coordination with the Ministry of University and Research and, apart from these institutional activities, CNR and the Italian Ministry of the Environment have signed numerous agreements and contracts of project implementation, consultancy and service activities. CNR is also involved in programmes and projects of the Ministry of Health.

The Department of Earth and Environment (DTA) includes thirteen research Institutes involved in research, surveys, technologies and knowledge transfer in a wide range of Earth sciences addressing atmospheric, terrestrial and aquatic issues. The mission of DTA is to gather knowledge and predict the behaviour of the earth system and its resources to contribute to a sustainable future for the planet and mankind.

The Department of Medicine includes twelve research Institutes performing basic, clinical and epidemiological research on many types of diseases as well as on disease prevention also through the interaction with National Health System structures. Tasks of the Department of Medicine include also innovation and technology transfer in medicine as well as education and training of personnel on health-related themes.

A total of thirty-seven Institutes, including some belonging at the Departments of Agriculture and Food, Materials and Devices, Energy and Transportation and ICT, are involved in research on EH interface.

In 2006 the CNR started a multi-disciplinary program aiming at promoting and coordinate collaborative research and joint actions on environment and health. In mid 2007, following priorities set also by the European Union, the CNR activated an Inter-departmental Project called Environment and Health (Italian acronym: PIAS CNR).

The Environment and Health Project has the overall objective of promoting an integrated research in these two scientific sectors, and the specific objective of developing the knowledge on sources of pollution and the consequent negative effects on health, the instruments and methods to analyse the interaction between environment and health, the instruments and methods to be used in managing complex situations.

As operative instruments, activities were identified in collaboration with CNR researchers, to strengthen competences and to facilitate the participation in international networks.

CNR is working to promote and transfer the results of research to the production system and to decision makers; to promote the experience of Health Impact Assessment on programmes, plans and policies; to contribute to developing Environment and Health monitoring systems; to test and validate environment and health indicators suggested by the EU and the WHO, supported by suitable information systems; to test and validate the use of geographic Information System (GIS) for a joint evaluation of territorial health and environmental data and to improve instruments and methods for risk reporting through recommendations and guidelines.

The PIAS CNR project is based upon the multidisciplinary activity of researchers of CNR and other public bodies, including the WHO, the Italian National Institute of Health, Italian Universities, the National Health System, the Ministry of the Environment and Territory, the Ministry of Health, the Regional Agency for Environmental Protection and Epidemiological Observatories.

The present publication includes overviews, results and suggestions produced by the PIAS working groups on effect of pollutants in the soil, water and soil monitoring for the protection of the environment and human health, the role of atmospheric pollution in terms of its harmful effects on health, Human bio-monitoring, Environment and Health surveillance systems, Monitoring contaminants in the food chain and their impact on human health. Two Pilot Studies on “Endocrine disruptors and their effects on health” and “Ultrafine particles and cardiopulmonary effects” are in progress.

A PIAS conclusive international workshop is planned for late 2010; this will represent a chance for the CNR Institutes as well as for collaborative Institutions for sharing experiences and conclusions between research groups and plan future research.

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