



مركز المياه  
والطاقة والبيئة  
WATER, ENERGY & ENVIRONMENT CENTER



**THE UNIVERSITY OF JORDAN**

**WATER, ENERGY AND ENVIRONMENT CENTER**

**RESEARCH POLICY**

## Preamble

This research policy provides the guidelines for scientific research framework in the Water, Energy, and Environment Center (WEEC) at the University of Jordan. This policy sheds light on the WEEC role in the future. It should be used as a reference point for scientific knowledge and research providing data and ideas to solve problems in the target fields through a unique group of experts and researchers with the highest levels of specification and world class facilities and networks.

The WEEC research policy aims at directing all scientific research activities in the WEEC and provides a clear link between all guiding principles. It thus addresses the challenges encountered by researchers in order to spearhead the WEEC towards greater efficiency in research delivery. The implementation of this policy will enable the WEEC to make informed decisions and embrace more scientific approaches.

The WEEC research policy guiding principles reinforce the researchers' personal accountability in order to ensure that the conduct of research, the research sources of funding, and its perceived applications are consistent with their judgment and conscience, as well as with established professional ethics.

## Definitions

- **Research:** a systematic investigation, including research development, testing and evaluation, designed to develop a unique output and contribute to general knowledge.
- **Researcher:** a person who systematically investigates and studies materials and sources to establish facts and reach conclusions.
- **Research Policy:** the art of justifying, managing, or prioritizing support of scientific research and development.
- **Research Strategy:** a plan or scheme by which the activity of searching for and assessing found information is carried out.
- **Research Misconduct:** the fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.
- **Consultancy:** the development of existing knowledge and the application of analytical and investigative skills to the resolution of problems presented by a client, usually in an industrial, commercial, or professional context.



## Research Themes

The research themes that underpin the overall research strategy of WEEC are as follows:

- **Water:**

Water is a finite resource; hence, responsible management requires the inclusion of all stakeholders to determine appropriate long-term use and allocation. Therefore, WEEC provides research to assist in developing and adopting innovative solutions and technologies that improve water use efficiency. Research considers issues relating to water resources and quality, water desalination, environmental laws, climate change, and energy efficiency. Activities in this area focus on extended education, laboratory research, field research, and policy development.

- **Energy:**

WEEC contains an energy research program that is based on the most efficient use of using our natural resources while minimizing our dependence on imported energy. The main objective of WEEC is to perform strategic research, support, and policy development that advance the goal of renewable energy and promote technologies, practices, and programs that increase efficiency for energy utilization in homes, businesses, and public buildings. Another main aim is to promote public awareness and understanding of all forms of energy, energy efficiency, and the importance of energy. WEEC promotes partnerships among the Jordanian universities, private industries, and non-profit organizations to actively pursue funded research and development resources that are dedicated to renewable energy solutions, including solar and wind energy, energy storage, biofuels/biomass, and energy efficiency and conservation.



- **Environment:**

WEEC encourages research and education about the environment and its many interactions with human society. WEEC seeks to provide the next generation of researchers, policymakers, and corporate leaders with a comprehensive interdisciplinary environmental education, while fostering links and partnership among different parts of the University, as well as between the University and the outside world helping to guide Jordan toward a more sustainable future. The research considers air quality, wastewater treatment and management, and site remediation.

- **Interdisciplinary Research**

The quality of life, standard of living, and national security of Jordan and Jordanians depend on water, energy, and environment. In addition, the most pressing problems facing the world are complex, often requiring collaborative investigation by researchers trained in different disciplines. Therefore, WEEC focuses on environmental cooperation and integration around the interconnected issues of water, energy, and environment.

The water–energy nexus is the nearly inextricable linkage between water and energy. Producing water requires a lot of energy, and harnessing energy requires lots of water. WEEC is dedicated to breaking down the conceptual, technological, and regulatory barriers between water and energy.

## Guiding Principles

The WEEC researchers should adhere to the following guiding principles:

- **Researchers Qualification**

Sufficient and well-developed human resources in research and development are the cornerstone of advancement in scientific knowledge and technological progress. The WEEC shall identify potential shortage of researchers, particularly in certain key disciplines. Consequently, WEEC must intensely improve its attractiveness to researchers by helping to create the necessary



conditions for their more sustainable and appealing careers. WEEC shall introduce and implement new instruments for the career development of researchers and thus to contribute to the improvement of career prospects for researchers.

- **Preparation of Research Projects**

It aims at creating and applying research projects which shall be relevant to the researcher's interest, departmental expertise, and in line with the national priority research agenda of Jordan. WEEC shall provide access to the national and international database and resources. Researchers shall define themes together with other experts involved with the work from industry, academia, and various organizations. Research project shall offer convincing support of need for the research study being proposed and it should be prepared in accordance with the guidelines of funding agencies.

- **Research Funding**

Financing of scientific research activities by WEEC is extremely limited. At present, almost all funding for scientific research is dependent on local and international funding support. Selective allocation of funding is crucial to ensure the highest quality standards of scientific research and to strengthen the structural development of the science and innovation system. However, in order to get a proper fund from local or/and international funding agencies, WEEC researchers shall write effective, qualified, and fundable scientific proposals.

WEEC research fund will be an important tool for allocating resources to competing candidates and will also provide a better overview of the range of national allocations in support of scientific research activities. WEEC research fund shall initially obtain its income from other WEEC sectors and from governmental allocated contributions.

- **Networking and Research Partnerships**

WEEC puts emphasis on building sustainable and active network, since the success of the WEEC's research activities depends on building networking and research partnerships. Research efforts shall be coordinated internally, and, where appropriate, also externally in order to ensure efficiency and maximum impact of resource allocation. Coordination includes the broad and timely dissemination of research priorities, efforts, and results with other WEEC sectors. Where appropriate, research projects shall be designed and undertaken in a manner to foster local intellectual capacity strengthening and participation.



At the national level, WEEC supports the establishment of such network and guides its operation. Developing of collaborative initiatives with industry, academia, and government helps find applicable solutions to various scientific challenges. Moreover, partnerships enhance the scope of the departmental scientific research goals. At the international level, WEEC promotes the international contribution through attending international conferences and bilateral scientific exchange with universities and research institutions around the world.

- **Research implementation**

WEEC supports high quality research that not only meets the agencies guidelines for research implementation but also assures review of the research at all appropriate stages, from proposal to outcome, through specified mechanisms such as peer review processes. Research progress and results are monitored and evaluated with regard to impact, quality, participation, coordination (with the scientific/research and funding agencies), and investment.

- **Knowledge Transfer/ Dissemination of Research Findings**

The results of WEEC research activities must be publicly available. WEEC also plays a key role as a broker of knowledge for the broader communities by building networks and communities of interest. Knowledge transfer activities include publication and distribution of the results of scientific research to the stakeholders through forums and workshops. Moreover, they also include participation in various industrial and governmental committees to exchange information about technologies and emerging issues.

- **Researchers Promotion**

The WEEC fosters an environment conducive to research and build strong promotion and incentives scheme for researchers based on the scientific productivity and experiences in order to build self-satisfaction for each researcher and to reduce the probability of WEEC brain drain.



- **Intellectual Property**

WEEC seeks to invest in its intellectual capital, because it values its human resources. However, intellectual property rights, arising from research, must be governed by WEEC Intellectual Property Policy.

## Research Code of Conduct

WEEC is committed to ensuring that the research conducted by its research team maintains the highest standards of integrity. This code of conduct provides an appropriate set of criteria to establish a framework and ethical conduct expected of all persons engaged in research at WEEC. It also includes a requirement that each researcher should formally accept overall responsibility for the following:

- **Research Ethics**

WEEC promotes the responsible conduct of research through high standards of ethics and accountability in planning, conducting, and reporting research. The research techniques should not violate established professional ethics pertaining to the health, safety, privacy, and other personal rights of human beings. Researchers should only participate in work that conforms to accepted ethical standards and which they are competent to perform. The building blocks of the research ethics shall include honesty, accuracy, efficiency, and objectivity. WEEC maintains effective management systems for ensuring compliance with its ethical standards.

- **Data Storage and Retention**

WEEC ensures that the research data (including electronic data) is held for sufficient time and recorded in a durable and appropriately referenced form. WEEC ensures that its research team is aware of any confidentiality provisions applying to specific projects and knows whether there are any obligations with respect to these provisions.



- **Authorship**

Authorship of a research output is discussed between researchers at an early stage in a research project and is reviewed whenever there are changes in participation. When there is more than one researcher of a research output, one researcher (by researchers' agreement) is nominated a principal investigator for the whole research output. This person takes responsibility for record keeping regarding the research output. The researchers must ensure that others who have contributed to the work are recognized in the research output. Courtesy demands that individuals and organizations providing facilities should also be acknowledged.

- **Publication**

WEEC ensures that publication of multiple papers based on the same set(s) of data is not acceptable, except where there is full cross-referencing within the papers. WEEC researchers must ensure that the work of any relevant person is recognized and appropriately acknowledged in all publications derived from research to which they have made a contribution.

- **Conflict of Interest**

WEEC researchers have an obligation to disclose at the time of reporting or proposing research any conflict of interest which has the potential to influence research and investigations, publication, media reports, and grant applications.

- **Research Misconduct**

Research misconduct implies a significant departure from accepted practices of the relevant research. Research misconduct also implies that a person behaves intentionally, knowingly, or recklessly; the allegation against this person should be proven by a preponderance of the evidence. All WEEC researchers or individuals associated with the WEEC must report any observed, suspected, or apparent misconduct in scientific research to WEEC research management.