

OXFORD CENTRE FOR ISLAMIC STUDIES

An institution for the advanced study of Islam and the Muslim world



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FOR
ISLAMIC STUDIES



NASA

Project STEMS: SCIENCE, TECHNOLOGY, AND ENVIRONMENT IN MUSLIM SOCIETIES



Muslims comprise roughly a quarter of the world population and account for a similar share of global GDP. However, countries with significant Muslim populations are situated in geographic regions that make them particularly vulnerable to disrupted weather patterns and persistent insecurity of water and food resources. Their economic realities and potential vary widely: the poorest peoples are also the most vulnerable to environmental degradation, climate unpredictability, and their effects on public health and political stability.

At the same time, technological advances such as those in information-processing applications, the manipulation of plant and animal genomes, and others are disrupting, partly even uprooting, traditional socioeconomic relations. However, the values and responsibilities embedded in those relations are the essential resources humans use to anticipate and adapt to the challenges they face.

To tackle the pervasive upheavals of our era, today's Muslim societies need to emulate their predecessors who pioneered many scientific and technological advances, with notable successes in the natural sciences, medicine, public health, and agriculture. They worked systematically to build scientific knowledge, to innovate crafts and techniques and train practitioners. They did so against the background of coherent expositions of faith and philosophical values, and of legal concepts that, for example, favoured humanly oriented and proportioned urban spaces, and the preservation of land, water and air for future generations.

Navigating future challenges will require policies to be grounded in scientific evidence together with a sound appraisal of the values that determine Muslim societies' engagement with science and technology. Additionally, a secure philosophical and ethical basis will be needed for societal acceptance of policy decisions, especially among communities for whom faith plays a dominant role. The global nature of contemporary challenges also requires dialogue and

partnership across religious and cultural barriers, in order to effectively adapt to existential threats such as food and water insecurity and forced migration, and to mitigate the impacts of climate change wherever mitigation is feasible.

Project STEMS – ‘Science, Technology, and Environment in Muslim Societies’ studies the ongoing efforts in a range of Muslim-majority countries to meet these challenges, covering several areas of science and its technological applications. The project gathers information and promotes research that recognizes the challenges and proposes practicable steps to meet them in ways that are sustainable, equitable and socially acceptable. This goal requires understanding the religious and cultural norms in play, with an appreciation of their power to inform and motivate efforts to adapt and, beyond mere survival, effectively negotiate challenges and opportunities.

The challenges are global, and the pursuit of knowledge is always collaborative. Project STEMS is, in alignment with the Centre’s remit, multi-disciplinary in its orientation and will collaborate with other institutions worldwide to harvest the energies and creativity that can flow into an intellectual endeavour welcoming of different perspectives.

The Principal Investigator of the project is Professor Shahid Jameel, Sultan Qaboos bin Said Fellow at the Centre and Research Fellow at Green Templeton College, Oxford. The Islam and Environment strand of the project is led by Professor Adil Najam, President of WWF International, Professor of International Relations and of Earth and Environment at Boston University, and Mahathir Mohamad Fellow at the Centre. The Senior Adviser to the project is Professor Sir David Clary FRS, King Salman Fellow at the Centre and President Emeritus of Magdalen College, Oxford. This Centre project extends its earlier one on Public Health, Science and Technology in Muslim Societies.



The relevance and urgency of the project will attract potential partners, some having expressed interest in supporting focused regional studies on which the quality and value of the project will ultimately be judged. Outputs will include publications collating the data that research has gathered, and policy papers outlining actions that can be taken.

The long-term goal of the project is to facilitate the establishment of a collaborative network across Islamic countries that uses science to address local and global challenges, and as a vehicle to unite people. At the same time, it hopes to provide key tools for the necessary exploration of the philosophies and values that identify permitted social adjustments and underpin societies' engagement with existing and new technologies.

ABOUT THE CENTRE

The Oxford Centre for Islamic Studies is a registered educational charity (founded 1985), incorporated by Royal Charter (2012). It engages in the multidisciplinary study of Islamic culture and civilization and contemporary Muslim societies.

Through excellence in academic teaching, research and publication, the Centre provides an intellectual space in which the perspectives of different scholarly traditions and disciplines can come into fruitful engagement. This effort enables and builds networks of mutual respect and understanding.



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