

Special Session
on
National-wide Coordinated Security of Water-Energy-Food
Nexus
at
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Session Organizers:

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Scope and Objectives:

The coordinated security of water-energy-food nexus is vital for the national security. Challenges and opportunities lie in an effective management mechanism of the three independent yet interconnected systems. A strategic framework of the water-energy-food nexus provides goals to target and associated pathways to achieve the goals taken into account resources constraints. Key scientific issues to be solved in the establishment of the strategic framework include: determination of optimal reallocation of water, energy and food resources at multiple scales; adjustment strategy of high resource-consumption industries; formulation of a differential risk control system; reform of laws, regulations and organizational systems; comprehensive nexus planning and management under uncertain conditions.

The proposed session is based on the research activities under the National Key Research and Development Program “Key Technologies for the Coordinated Security of Water-Energy-Food Nexus” supported by the Ministry of Science and Technology in China. Contributions within this program and from other programs related to the coordinated management of water, energy and food systems are welcome to this special session.