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Panel VI The Future of Nuclear Energy in the World:
Consequences for the Arabian Gulf

LESSONS FROM THE NUCLEAR COUNTRIES: CIVILIAN POWER VS. WEAPONIZATION PROGRAMS

Abstract

The World is searching for a carbon-free solution to global warming. This solution has to be agreed upon, procured and at work displacing fossil fuelled electricity generation within two to three decades at the most if climate change is to be managed for a sustainable future.

The civil nuclear power industry worldwide claims that expansion of the present generation of tried and tested nuclear power plants is the obvious answer: the greenhouse gas emissions from nuclear electricity generation are negligible, the power plant technology is established, the nuclear fuel cycle is already installed and has the capacity for increased production and that, with rising fossil fuel prices, nuclear is cost-for-cost competitive. However, the rapid deployment of civil nuclear energy, particularly with its associated front- and back-end nuclear fuel facilities, introduces risk that the high technology needed to commission and operate civil nuclear power facilities will transfer to military-industrial activities aimed at acquiring nuclear weapons know-how.

The benefits of civil nuclear power generation could be, literally, World saving but, on the other hand, the risks of proliferating such dual-capable technologies might be, if weaponized, life threatening on regional, continental if not global scales.

The presentation examines and analyses how apparently benign civil nuclear power programs might assist with, or indeed form the foundation of weaponization toward the ultimate goal of establishing an operational nuclear arsenal. Particular regard is given to international agreements to trade in the nuclear materials and technologies such as the recently settled *US-India Cooperation Agreement*, for which not-so-obvious telltales of dual-capable technology transfer are identified. Nuclear proliferation is not confined to actual nuclear warheads, but includes the technology and materials, the targeting and delivery systems and, importantly though in a more abstract sense, the intentions perceived by neighboring states. Equally menacing is the growth in trade of radioactive and nuclear materials which, although these might not directly contribute to a state-organized but clandestine nuclear weapons program, could be crudely deployed in the form of *dirty bombs* by those intent of increasing the threat from international terrorism.

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