

However, this problem can not be solved globally. Only people's decision will determine whether 40 per cent of food on the planet continues to be produced in vain.

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ASSESSMENT OF THE THREAT OF NUCLEAR TERRORISM

As the distribution on Earth of nuclear technologies and increasing the threat of their use is becoming increasingly important to protect the global community from impending nuclear disaster.

Leading world powers and international organizations are seriously engaged in the development of a set of active and preventive measures for the reduction of nuclear arsenals, non-proliferation of nuclear weapons and nuclear technology and prevent nuclear terrorism.

Nuclear terrorism is the intentions and actions of individuals or groups in possession of nuclear weapons or radioactive materials for subsequent use or threat of use, as well as attack the nuclear infrastructure in order to cause casualties, environmental damage, to achieve certain political or economic goals.

There are following targets of NT: terrorist bombs, smuggling, NPP and facilities.

First, terrorist bombs:

Designs for reliable nuclear weapons are openly available and building them repeatedly proven to be well within the capacity of competent undergraduate physics students. You can find information about design nuclear bomb in Google.

The most difficult part of constructing a nuclear weapon is obtaining the fissile material required – either highly enriched uranium (HEU, enriched to 20% or more) or plutonium (Pu). Plutonium is more radioactive, but terrorists could handle it with simple equipment such as rubber gloves and polyethylene sheeting.

Second, nuclear smuggling

There are a lot of examples of smuggling in nuclear history.

- Dec 1993, Odessa, 40 kg of uranium seized
- Dec 1994, Czech police seized 4 kg HEU, the same year German more than 400 g Pu.
- Oct 2001 Turkey 1.16 kg weapons-grade uranium in;
- Russia, stealing 22.2 kg LEU in April 2006

This is a real danger: the global stockpile of HEU and Pu currently amounts to 2300 tons, enough for more than 200,000 units of nuclear weapons. These materials exist in hundreds of buildings in more than 40 countries.

Finally, NPP and facilities

Currently 441 nuclear power plants operate in 31 countries. The most likely terrorist targets are the reactor itself and the ponds storing the spent fuel.

There is a high probability that a nuclear terrorist attack will occur during the next decades. A dirty bomb attack is probably essentially inevitable.

Ending risks of nuclear proliferation and terrorism will require comprehensively securing radioactive sources, an end to uranium enrichment and reprocessing of spent reactor fuel, abolition of nuclear weapons, and phasing out of nuclear power generation.

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SOCIAL ASPECTS OF BIOTECHNOLOGY

Biotechnology cause the formation of a new type of relations between society and nature, where the central idea will be the idea of "reverence for life", the unity of man and nature. Biotechnologies are social by nature, they are realized in a society and determine social needs, interests. The development of biotechnology is influenced by various social factors such as social needs, the system of social relations. Therefore, biotechnology has pronounced humanistic aspect related to the definition of the boundaries of biotechnologies. A crucial constraint on the development of biotechnology, and perhaps other technologies too, is the global revitalization and reinforcement of the religious dimension that has taken place in the past decades. Many people believe that they see in this development not only a quantitative increase, but also a fundamental change in the religious dimension and its relationship to other cultural and social dimensions. The development of biotechnology, especially human biotechnology, is one of the key arenas where these change processes are expressed as more or less powerful reactions against what is perceived as the objectification of life, body and mind. The social nature of biotechnology allows us to understand its axiological content that appears in the value of the realization of biotechnology as a special form of social activity. Transforming social realities with the help of biotechnology, the invasion in the evolution of life may create a threat to human existence. The main concerns of biotechnology became more and more relevant, related to issues of bioethics and biosafety, such as bioterrorism (e. g., genetically modified bacteria resistant to treatment or preparations erasing memory); social control (e. g., drugs to pacify the aggressive individuals or forced birth control); enhancement of our bodies and minds (drugs that improve memory), and if that enhancements become widespread the issue of equal access may arise. As a result there will be a split in society, which may lead to devastating results as it is a potential threat to the security, freedom and even human nature itself.

As the products, methods and terminology of biotechnology make inroads into new markets and areas of society and experience, the basis is expanded for empirical studies of dilemmas, options and impacts related to the development of biotechnology. One feature of the development of biotechnology is that it often takes