

DUAL USE RESEARCH IN AFRICA

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What is dual use research?

Advances in biotechnology to understand life has contributed to improvements in

- animal and plant health,
- public health,
- improve agricultural yields,
- enhance economic development.

What is dual use research?

- Nevertheless, any misapplication following the technological manipulation of bio-products could present a potential source of danger to public health and safety, agriculture, plants, animals, the environment, etc.

Implications

Dual-use research has implications for individual scientists, the scientific community, and the society.

- While regulation is imperative, over regulation could discourage scientists from engaging in consequential areas of research or lead to the destruction of rare or dangerous pathogens in culture collections, thus affecting progress in specific areas of research.

Implications

- Over regulation could interfere with the freedom to address pertinent scientific questions and to be creative, which are the essence of the scientific process.
- However, exaggerated assessments of the biological weapons threat could lead to excessive spending on biodefense or bioterrorism research. Thus, diversion of funds from traditional areas of public health.

1. CHALLENGES ASSOCIATED WITH ADDRESSING THESE IN AFRICA

Governments:

- Lack of Regulatory framework in most countries
- Very little provisions for research spending and so do not completely own research carried out in country
- Research coordination and oversight not well managed

1. CHALLENGES ASSOCIATED WITH ADDRESSING THESE IN AFRICA

Institutions

- Research coordination
- Regulatory functions, ethics committees, etc
- Scientists working in isolation

1. CHALLENGES ASSOCIATED WITH ADDRESSING THESE IN AFRICA

RESEARCHERS

- Work in isolation - very little team spirit
- Research based on external funding and often priorities set to agenda of funders
- Poor communication and networking
- Poor access to the internet
- Little knowledge of who is doing what
- Most research in drawers, not enough journals for publishing, not easy publishing in good internatl journals

2. ARE THERE DIFFERENT PERCEPTIONS OF THE THREAT IN AFRICA AND US?

Perceptions of the threat in Africa

1. Ignorance:

- Many Researchers/scientists work in isolation & are not even aware of the potential for destructive consequences from their work.
- Those sensitive to the dual-use research have different perceptions of the risk

2. Poverty:

- Most countries are unable to support research. Two percent Health Budget for Health Research??????
- Researchers rely on foreign support for which funders often define the objectives of the research

Perceptions of the threat in Africa

3. Availability of areas for research

- Most infectious agents are endemic and prevalent in Africa and the diseases caused by these agents have serious public health consequences.
- Focus on these with little or no attention to the destructive sides.
- Lack of critical mass to deal with priority research areas, and much less for dual-use

Perceptions of the threat in Africa

4. Absence of ethical and legal policies

- Due to differences in country policies towards research concerns about dual-use, research areas are likely not to be addressed in the same manner between the US and Africa.

4. Insufficient oversight of research

5. *Poor Communication: Internet, travel, documentation, etc*

Perceptions of the threat in Africa - CASE OF CAMEROON

- Law exists in the Ministry of Environment and Nature Protection on safety regulations governing modern Biotechnology in Cameroon

Law N^o. 2003/006

- Procedures for its application available but implementation will depend on effective collaboration between the ministries of Environment, Research, Public Health, Agriculture, Justice and Research institutes/Labs, etc...

Perceptions of the threat in Africa - CASE OF CAMEROON

- Many researchers not aware of existing law
- No database of researchers and who does what
- Absence of research coordination on the use of potentially harmful research tools – DNA, radioactivity, etc...

Incentives

- Create awareness on dual use issue research in Africa
- Train competent authorities on dual use issues
- setting up of local and national level institutions to support the implementation of the dual-use issue
- Identify a body responsible for oversight on dual use research on the continent and in each country, need laws

*Thank You for
your kind attention*