

CENTRE FOR  
BIOSECURITY AND  
BIOPREPAREDNESS

## Kenya Denmark Biosecurity Partnership

Hellen Kabiru, Permanent Mission of Kenya to the UN  
Geneva

Mia Kjems Draegert, *Centre for Biosecurity and  
Biopreparedness, Denmark*



# Background

- ◆ Human population
  - 44,000,000 (2015)
- ◆ Livestock populations
  - Cattle 18 million
  - Sheep 18 million
  - Goats 28 million
  - Camels 3 million
- ◆ Wildlife
  - Rich in diversity and numbers



# Why biosecurity?

- Kenya
  - Risks of emerging and re-emerging infectious diseases including increasing incidence of antimicrobial resistance;
  - Serves as a regional hub for international air travel and shares common borders with countries that have had internal conflicts for a long time;
  - Conscious of the potential use of biological agents in terrorist activities against innocent people.
- There is need to build institutional capacity to rapidly detect, prevent and effectively respond to disease outbreaks.

# Ministry of Health Kenya

- Responsible for policy formulation, regulations and standards
- The public laboratory system composed of more than 300 hospital-based laboratories
- There are 6 BSL-3 labs in the country
- Established a Biosafety and Biosecurity office in 2011
- Key functions
  - Coordination of national activities/partners
  - Policy and guidelines development
  - Technical support

# Biosecurity status in Kenya

- Kenya signatory to instruments which support biosecurity: IHR, 2005, BTWC and UNSCR 1540;
- Adopted a multisectoral approach and whole of government approach in efforts within Global Health Security Agenda (GHSA) initiative;
- National biosecurity policy and strategy in the final stages of development;
- Work is in progress to put in place a legislation on biosecurity;
- Training modules on biosecurity conducted in various institutions-harmonization may be required;
- Specific agency (NACOSTI) designated as the national focal point for BWC coordinates biosecurity issues in the country;

# Focus Areas in Biosecurity

- Implement a comprehensive, sustainable and legally embedded national oversight program for biosafety and biosecurity;
- Develop and implement whole-of-government specific biosafety and biosecurity legislation and strategic plan;
- Safeguard identified dangerous pathogens in restricted facilities and license, monitor, track highly toxic biological materials

# GHSA in Kenya

- Kenya works with other countries and international organizations to accelerate progress towards a world safe from infectious disease threats and to promote global public health security;
- Kenya is a member of the GHSA steering group as well a leader in the biosafety and biosecurity action package;
- Adopted multisectoral approach in GHSA implementation;
- Hosted AP3 action package meeting in Nairobi in March 2015
  - AP3 annual work plan developed at meeting.

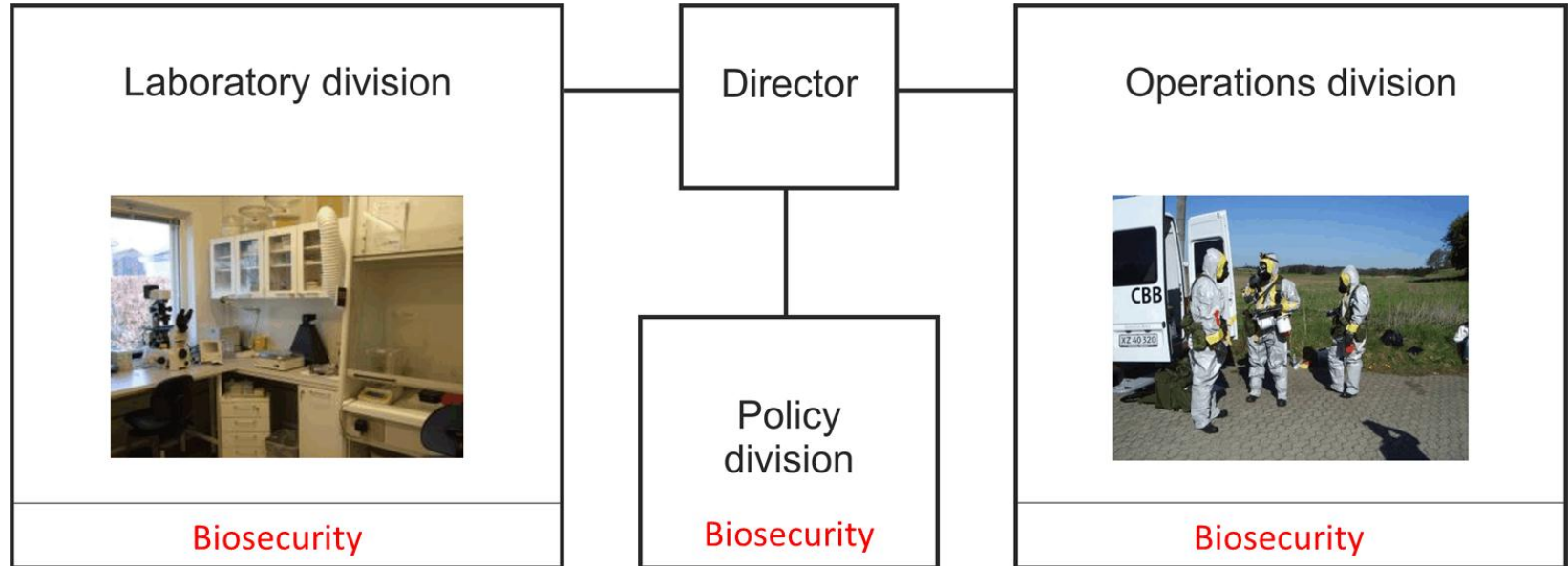
# GHSA – Action Package Prevent III

## Biosafety and Biosecurity

- 5 year targets:
- Especially dangerous pathogens are identified, held, secured and monitored in a minimal number of facilities
- Biological risk management training and educational outreach conducted
  - Culture of responsibility
  - Reduction of dual use risks
  - Mitigate biological proliferation
  - Ensure safe and secure transport of biological agents
- Country specific legislation, licensing and control measures in place



# Danish Centre for Biosecurity and Biopreparedness



- Established 2001 under Ministry of Health, Department under Statens Serum Institut
- National biosecurity agency with legal & regulative powers
- Operationally, scientifically, clinically and management experienced staff

# The Danish Model for Biosecurity

## Whole of Government Biosecurity System

- Biosecurity legislation introduced by Parliament in 2008
- Followed by regulation in 2009
- One agency mandated to coordinate biosecurity and biopreparedness efforts
- Agency responsible for issuing licences regarding: biological agents, related material, and technology to both the public and private sector
- The Danish experience has been described in the educational book: *An Efficient and Practical Approach to Biosecurity*

# The Danish model for Biosecurity

## Whole of Government Biosecurity System

### II

The Danish experience shows that legally embedding biosecurity in the regulatory framework:

- creates the best opportunity for a sustainable biosecurity system
- harmonises regulation of biosecurity measures of facilities nationally, creates focal point for harmonising internationally
- enables Government to have an overview of control list of dangerous biological agents and toxins to restrict access to strain collections and track dual use research activities
- ensures compliance with non-proliferation of biological materials of mass destruction (BTWC and UNSCR 1540)

# The Danish Partnership Programme on Biosecurity in East Africa

- Joint collaboration between the Danish MOH, MOD, and MFA
- Launched in 2014 (24 months duration) under the Danish Peace and Stabilisation Fund
- The purpose of the pilot project:
  - explore the transfer of relevant elements from the Danish whole-of-government biosecurity system to partner countries
  - take the initial steps to explore the introduction of modern diagnostic methods in partner countries
- The objective of the pilot project:
  - contribute to reducing the risks of proliferation of biological materials with weapons potential
  - improve security and public health through better diagnostic detection methods

# Activities and Results

- National biosecurity legislation and institutional framework for biosecurity
  - Work in progress with draft of biosecurity policy at advanced stages
- Establishment of the multi-sectoral National Biosecurity Technical Advisory Committee (NaBTAC)
- Biosecurity agency building
- Development of Educational book: *An Efficient and Practical Approach to Biosecurity* and related courses
- Survey of biosecurity status in 86 laboratories in Kenya

# Survey of biosecurity status in 86 laboratories in Kenya



# Survey of biosecurity status in selected laboratories in Kenya

November 2014 – February 2015

The overall aim of the survey:

- Gather evidence regarding the general level of biosecurity and laboratory capacity in Kenya to inform the draft bioscience bill
- Assess and raise awareness of biosecurity among personnel in laboratories in Kenya

Key findings:

- The analysis identified that a high number of laboratories store and handle a variety of very dangerous pathogens and toxins with a dual use potential
- Half of the laboratories storing dangerous pathogens had no inventory lists of the pathogens in laboratories
- Most facilities handling dangerous biological agents had limited knowledge of biosecurity, and a better understanding of biosafety

# Survey of biosecurity status in 86 laboratories in Kenya

## II

- Storage most often takes place with sub-optimal security, and largely rely on the vigilance of the resident scientists, technicians and other employees
- Relatively easy to gain access to pathogens in several of the facilities, not least by insiders during working hours.



# Going forward

- Continue to focus on awareness of biosecurity;
- Finalize biosecurity policy and institutional framework;
- Develop a strategic plan on biosafety and biosecurity;
- Capacity building;
- Regulation and guidelines;
- Study visit to CBB in Denmark;
- Explore opportunities for continued collaboration between Kenya and Denmark in the area of biosecurity and to expand efforts to other countries in the region.

Thank you