

**2009 Meeting**

**Geneva, 7-11 December 2009**

Item 6 of the provisional agenda

**Consideration of, with a view to enhancing international  
cooperation, assistance and exchange in biological  
sciences and technology for peaceful purposes, promoting  
capacity building in the fields of disease surveillance,  
detection, diagnosis, and containment of infectious diseases**

**SYNTHESIS OF CONSIDERATIONS, LESSONS, PERSPECTIVES,  
RECOMMENDATIONS, CONCLUSIONS AND PROPOSALS DRAWN  
FROM THE PRESENTATIONS, STATEMENTS, WORKING PAPERS  
AND INTERVENTIONS ON THE TOPIC UNDER DISCUSSION AT THE  
MEETING OF EXPERTS**

Submitted by the Chairman

**I. Aims**

1. Recognizing the fundamental importance of enhancing international cooperation, assistance and exchange in biological sciences and technology for peaceful purposes, in the interests of achieving comprehensive implementation of the Convention, States Parties should work together to promote capacity building in the fields of disease surveillance, detection, diagnosis, and containment of infectious diseases, including by:
  - (i) Bridging financial and technological gaps between countries by sharing resources, enhancing capabilities and assisting each other;
  - (ii) Ensuring the adoption of an all-hazards approach and providing capacity so that scarce resources are used effectively to combat disease irrespective of its cause;
  - (iii) Supporting safe, secure, sustainable, cost-effective and systematic cooperation;
  - (iv) Supporting the implementation of relevant international efforts to tackle infectious disease, such as the disease reporting mechanisms under the FAO, OIE and WHO;

- (v) Reviewing how they implement Article X of the Convention in line with the decision taken by the Sixth Review Conference.

## **II. Problems, challenges and needs**

2. Recognizing that there remain challenges in developing international cooperation, assistance and exchange in biological sciences and technology for peaceful purposes to their full potential, and that many States Parties face considerable obstacles in building sufficient capacity for disease surveillance, detection, diagnosis and containment, States Parties should consider how they can contribute to overcoming the following problems:

- (i) The lack of resources at the international level to deal with plant diseases;
- (ii) The short-term and unpredictable nature of funding and available resources;
- (iii) The shortfall of assistance to implement the requirements of the revised International Health Regulations (2005);
- (iv) Insufficient focus on diseases that are prevalent in developing countries but are rarely present in developed countries;
- (v) Insufficient integration of the private sector and traditional medicine;
- (vi) Weaknesses in infrastructure, human resources and the implementation of standard operating procedures in developing countries;
- (vii) Difficulties in retaining skilled human resources and with day-to-day maintenance of core health capacity;
- (viii) Lack of coordination among assistance providers both internationally and between different national departments;
- (ix) Difficulties in sharing diagnostic samples and materials due to safety, security and transport regulations;
- (x) Difficulties in acquiring the necessary materials, equipment and technology;
- (xi) The potential for non-proliferation provisions to hamper access to equipment, materials and scientific and technological knowledge for disease surveillance, mitigation and response.

### III. Developing mechanisms for building capacity

3. Recognising that although disease surveillance, mitigation and response are primarily national responsibilities, infectious diseases know no geographic boundaries and neither should efforts to combat them, States Parties should:

- (i) Support relevant activities undertaken by international organizations, such as the FAO, WHO and OIE;
- (ii) Work at the regional level with relevant partners, such as regional offices of the WHO, regional political and scientific bodies and other donors;
- (iii) Work together bilaterally, including by forging new, and improving existing, North-South, South-South and North-North partnerships;
- (iv) Consider establishing a mechanism under the Convention to promote, facilitate and improve the coordination and effectiveness of relevant capacity-building activities.

4. In working together internationally, regionally and bilaterally, States Parties should, according to their individual circumstances and requirements:

- (i) Develop mechanisms to assist States Parties in identifying their needs in terms of equipment, materials and scientific and technological information;
- (ii) Take full advantage of existing resources, and identify additional resources and innovative financing mechanisms, to facilitate the widest possible exchange of relevant equipment, materials and scientific and technological information;
- (iii) Improve cooperation and information sharing of advances in the life sciences relevant to the control and eradication of infectious diseases;
- (iv) Improve coordination of capacity building activities to minimise duplication and ensure a more comprehensive approach;
- (v) Tailor solutions to the specific needs and priorities of countries in a results-based manner so that they maximise the potential for improving health;
- (vi) Ensure effective communication and coordination among human, animal and plant health sectors;
- (vii) Foster an inter-disciplinary approach by ensuring effective inter-agency cooperation and by incorporating traditional biomedical science with economic, social sciences, demographics and agricultural sciences;

- (viii) Take advantage, wherever possible, of existing networks and institutional arrangements, such as disease-specific surveillance networks or by improving the integration of epidemiologists and scientists into the international public health community;
- (ix) Work with the private sector, academia and non-governmental experts, including through the use of public-private partnerships, direct investment and incentive mechanisms;
- (x) Further strengthen networks of reference laboratories, in particular through twinning programmes;
- (xi) Use collaborative projects to increase motivation and support, including in detection technologies, vaccine research and development, developing new disinfectant regimes and therapeutics;
- (xii) Continue to develop basic science, tools and core technologies, such as new detection, identification, monitoring and information exchange systems.

#### **IV. Developing the necessary infrastructure**

5. Recognising the existing requirements in other settings to establish core national public health capacities, such as those under the revised International Health Regulations (2005), States Parties should work to develop:

- (i) Surveillance systems which are sensitive, specific, representative, timely, simple, flexible and acceptable, and which have capabilities for continuously collecting and analyzing data from various sources;
- (ii) Capacity for rapid detection and identification of pathogens, including improved access to high quality diagnostics and expertise;
- (iii) Primary health care services, such as laboratory systems and capacity;
- (iv) Emergency response capabilities;
- (v) Communication capabilities, including for public information and professional collaboration.

6. In working to develop this infrastructure, States Parties should, according to their individual circumstances and requirements:

- (i) Consider developing a national strategic plan and a mechanism for monitoring and evaluation, using standard risk management tools;

- (ii) Make use of the many forms of disease surveillance, including active surveillance, passive surveillance, generic surveillance, syndromic surveillance and disease-specific surveillance;
- (iii) Strengthen immigration and border control to help manage the international spread of infectious disease;
- (iv) Establish mechanisms for real-time information sharing and data management;
- (v) Take advantage of opportunities offered by advances in science and technology to improve the way diseases are detected and monitored, for example, through the analysis of environmental and climate data collected by satellite;
- (vi) Make better use of disease data in decision-making processes;
- (vii) Provide resources and opportunities for improved cooperation, communication and networking between institutions, departments, agencies and other stakeholders;
- (viii) Use feedback loops to ensure lessons learned from one disease event are used to strengthen the system and integrated into future disease surveillance, mitigation and response efforts.

## **V. Developing human resources**

7. Recognising that infrastructure is of little use if there are not appropriately trained individuals to use it, States Parties should:

- (i) Make use of workshops, training courses and conferences at the national, regional and international levels;
- (ii) Ensure that tools and courses and education materials are available in the native languages of practitioners;
- (iii) Provide opportunities for promoting contact and sharing of experience between professional institutions and relevant personnel;
- (iv) Expand concepts of relevant human resources to include all those associated with disease surveillance, detection, diagnosis and containment, including technicians, managers and policy makers;
- (v) Expand the competencies of relevant individuals to include the use of modern information and informatics tools, data management and analysis as well as the use of feedback loops;

- (vi) Make use of the full range of modern educational tools, including modular approaches, supporting materials, documents and online resources; a focus on practical training, video-assisted training, re-training and professional education;
- (vii) Revise educational curricula and training to facilitate a more inter-disciplinary approach to disease surveillance, mitigation and response;
- (viii) Conduct hands-on training exercises for biosafety, biosecurity, the use of personal protective equipment, and measures for the transport of dangerous goods;
- (ix) Identify ways to reduce "brain-drain", where individuals leave the public sector and enter the private sector after they have been trained and certified;
- (x) Provide the political leadership needed to ensure training and personnel issues are given adequate attention at national level;
- (xi) If in a position to do so, provide sponsorship for training, exchange visits, and travel to expert meetings of the Convention.

### **Developing standard operating procedures**

8. Recognising the value of opportunities offered for building capacity through shared practices and procedures, States Parties should:

- (i) Use standard operating procedures to enhance sustainability, improve trust, build confidence, contribute to quality control, and foster the highest standards of professional performance;
  - (ii) Work at the national level with ministries of health and agriculture and other relevant agencies to develop relevant legislation, standards and guidelines;
  - (iii) Develop and use best practices for surveillance, management, laboratory practice, manufacturing, safety, security, diagnostics, trade in animals and products, as well as associated procedures;
  - (iv) Strengthen international protocols for the rapid sharing of information;
  - (v) Use case studies of biosecurity considerations, risk assessment and the transportation of dangerous goods to improve existing practices and procedures.
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