



www.un.org/en/terrorism/ctitf

CTITF Working Group Report

**Interagency Coordination
in the Event of a Terrorist Attack
using Chemical or Biological
Weapons or Materials**

**CTITF
PUBLICATION
SERIES**

**AUGUST
2011**

United Nations Counter-Terrorism Implementation Task Force

**Report of the Working Group on Preventing and Responding
to Weapons of Mass Destruction Attacks**

**Interagency Coordination in the Event
of a Terrorist Attack Using Chemical or
Biological Weapons or Materials**



United Nations
New York, 2011

About the United Nations Counter-Terrorism Implementation Task Force

The United Nations Counter-Terrorism Implementation Task Force (CTITF) was established by the Secretary-General in 2005 to ensure overall coordination and coherence in the counter-terrorism efforts of the United Nations system. CTITF is chaired by a senior United Nations official appointed by the Secretary-General and consists of 31 entities from the UN system and other international organisations.

The United Nations Global Counter-Terrorism Strategy, which brings together into one coherent framework decades of United Nations counter-terrorism policy and legal responses emanating from the General Assembly, the Security Council and relevant United Nations specialized agencies, has been the focus of the work of CTITF since its adoption by the General Assembly in September 2006 (General Assembly resolution 60/288).

The Strategy sets out a plan of action for the international community based on four pillars:

- Measures to address the conditions conducive to the spread of terrorism;
- Measures to prevent and combat terrorism;
- Measures to build States' capacity to prevent and combat terrorism and to strengthen the role of the United Nations system in this regard;
- Measures to ensure respect for human rights for all and the rule of law as the fundamental basis of the fight against terrorism.

In accordance with the Strategy, which welcomes the institutionalization of CTITF within the United Nations Secretariat, the Secretary-General in 2009 established a CTITF Office within the Department of Political Affairs to provide support for the work of CTITF. Via the CTITF Office, with the help of a number of thematic initiatives and working groups, and under the policy guidance of Member States through the General Assembly, CTITF aims to coordinate United Nations system-wide support for the implementation of the Strategy and catalyse system-wide, value-added initiatives to support Member State efforts to implement the Strategy in all its aspects. CTITF also seeks to foster constructive engagement between the United Nations system and international and regional organizations and civil society on the implementation of the Strategy.

United Nations
Counter-Terrorism Implementation Task Force Office
One United Nations Plaza
New York, NY 10017

Website: www.un.org/en/terrorism/ctitf

Contents

Executive summary	vii
Key findings and recommendations	vii
I. Background	1
Mandate from the Global Counter-Terrorism Strategy	1
Objectives and methodology in producing the report	1
II. Compilation of existing interagency mechanisms	5
III. Compilation of existing mechanisms and responsibilities of CTITF WMD Working Group entities and other international organizations	11
IV. Analysis: prevention and preparedness	47
V. Analysis: response to chemical and biological terrorism	55
VI. Recommendations and next steps	71
Annexe 1	
Matrices summarizing and mapping the contributions by the organizations in all three areas (CW and BW preparedness/prevention, CW response, BW response)	79
Annex 2	
Report contributors	85
Endnote	85
Members of the CTITF Working Group on Preventing and Responding to WMD Terrorist Attacks	85

Acronyms

ACAT	Assistance Coordination and Assessment Team (OPCW)	EC JRC	European Commission Joint Research Centre
ADN	European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways	ECTAD	Emergency Centre for Transboundary Animal Disease Operations
ADR	European Agreement Concerning the International Carriage of Dangerous Goods by Road	ECTPP	Emergency Centre for Transboundary Plant Pests
AGA	Animal Health Production Division (FAO)	EMPRES	Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases
AGAH	AGA's Animal Health Service (FAO)	Europol	European Police Office
AGAS	AGA's Livestock Production Systems Branch (FAO)	ECOSOC	United Nations Economic and Social Council
ASA	Aviation Security Audit (ICAO)	FAO	Food and Agriculture Organization of the United Nations
BCN weapons	Biological, chemical and nuclear weapons	FCC	Food Chain Crisis Management Framework
BW	Biological weapons	FCC-EMU	Food Chain Crisis—Emergency Management Unit
BWC	Biological Weapons Convention	GF-TADs	Global Framework for the Progressive Control of Transboundary Animal Diseases
CBRN	Chemical, biological, radiological and nuclear	GLEWS	Global Early Warning System
CBT weapon	Chemical, biological and toxin weapons	GOARN	Global Outbreak Alert and Response Network
ChemiNet	Global Chemical Incident Emergency Response Network	HPEP	Highly pathogenic emerging and recurring animal diseases
CMC-AH	Crisis Management Centre—Animal Health (OIE and FAO)	IACRNE	Inter-Agency Committee on Radiological and Nuclear Emergencies
CNA	Compendium of National Approaches (UNICRI)	IAEA	International Atomic Energy Agency
CoE	CBRN Centre of Excellence	IATA	International Air Transport Association
CTED	United Nations Counter-Terrorism Executive Directorate	IAU	Investigation of alleged use
CTITF	Counter-Terrorism Implementation Task Force	IFRC	International Federation of Red Cross and Red Crescent Societies
CW	Chemical weapons	ICAO	International Civil Aviation Organization
CWC	Chemical Weapons Convention	IHR (2005)	International Health Regulations (2005)
DPKO	Department for Peace Keeping Operations	IMO	International Maritime Organization
DPI	United Nations Department of Public Information	INFOSAN	International Food Safety Authorities Network

CTITF Working Group on preventing and responding to WMD attacks

Interagency Coordination in the Event of a Terrorist Attack using Chemical or Biological Weapons or Materials

INTERPOL	International Criminal Police Organization	SOLAS	International Convention for Safety of Life at Sea
IRT	Investigative Response Team (INTERPOL)	SOP	Standard operating procedures
IPPC	International Plant Protection Convention	SUA Convention	Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation
ISD	Implementation Support and Development (ISD)	TAD	Transboundary animal diseases
ISPS Code	International Ship and Port Facility Security Code	TGP	Technical Guidelines and Procedures
ISU/BWC	Implementation Support Unit for the BWC	TICs	Toxic industrial chemicals
KMS	CBRN Knowledge Management Systems	UNDAC	United Nations Disaster Assessment and Coordination mechanism
LEGS	Livestock Emergency Guidelines (FAO)	UNDP	United Nations Development Programme
LEMA	Local Emergency Management Agency	UN DSS	United Nations Department of Safety and Security
MoU	Memorandum of understanding	UN ECE	United Nations Economic Commission for Europe
NBC	Nuclear, biological and chemical	UNICEF	United Nations Children's Fund
NID	National Implementation Database (UNICRI)	UNICs	United Nations Information Centres
NFP	National focal point (WHO)	UNICRI	United Nations Interregional Crime and Justice Research Institute
OCHA	United Nations Office for the Coordination of Humanitarian Affairs	UNHCR	United Nations High Commissioner for Refugees
OIE	World Organisation for Animal Health (formerly <i>Office International des Epizooties</i>)	UNODA	United Nations Office for Disarmament Affairs
OPCW	Organisation for the Prohibition of Chemical Weapons	UN ODC	United Nations Office for Drugs and Crime
OSOCC	On-Site Operations and Coordination Centre	UNSMS	United Nations Security Management System
PHEIC	Public health emergency of international concern (WHO)	WAHID	World Animal Health Information Database
PVS	Performance of Veterinary Services (OIE)	WAHIS	World Animal Health Information System
RID	International Carriage of Dangerous Goods by Rail	WCO	World Customs Organization
SARPs	Standards and Recommended Practices	WHA	World Health Assembly
SGM	United Nations Secretary-General's Mechanism for the investigation of alleged use of chemical, biological and toxin weapons	WHO	World Health Organization
		WMD	Weapons of mass destruction
		WTO	World Trade Organization

Executive summary

The Working Group on Preventing and Responding to Weapons of Mass Destruction Attacks (the Working Group) is one of the groups through which certain activities of the Counter-Terrorism Implementation Task Force (CTITF) are organized to support the implementation of the UN Global Counter-Terrorism Strategy. The CTITF was established by the Secretary-General in 2005 to ensure the coordination and coherence of United Nations system-wide counter-terrorism efforts. It now consists of 31 entities from the United Nations system and other international organizations.

This report is the second put forward by the Working Group. It aims to familiarize Member States with existing mechanisms in individual entities of the Working Group, as well as interagency mechanisms, in the context of the preparedness for, prevention of and response to terrorist attacks using chemical or biological weapons and materials. It also identifies opportunities for strengthening this coordination. In addition, the report aims at identifying new opportunities for strengthening prevention and incident response with regard to such attacks.

Key findings and recommendations

While in the area of nuclear and radiological terrorism it is relatively easy to identify lead agencies, there are a large number of UN and other international agencies and organizations that have partial mandates and undertake certain activities in the area of prevention of, preparedness for and response to possible terrorist attacks with chemical or biological weapons or materials. There is, however, no single lead agency that bears overall responsibility for the response to these threats at the international level. Instead, there is an array of inter-locking responsibilities. Activities of UN and other international entities address specific aspects of the threat of chemical or biological terrorism (some in a technically specialized manner, others in a broader chemical, biological, radiological and nuclear (CBRN) context) but no one agency can claim overall responsibility for either chemical or biological terrorism preparedness and response.

Coordination among the concerned entities is therefore of the utmost importance and the thrust of the recommendations deals with how this coordination can be enhanced. The recommendations address prevention and preparedness, as well as the actions of UN and other international entities in response to terrorist attacks using chemical or biological weapons or materials.

- First, UN and other international entities that provide technical assistance to States in the prevention of and preparedness for chemical and biological terrorism should more effectively share information and experiences so as to ensure that the technical assistance provided by them is tailored to the needs and circumstances of the States receiving them. This is important to ensure

a systematic approach towards needs assessment and capacity-building of States—the primary responders to terrorist attacks using chemical or biological weapons or materials.

- Second, the measures to develop and enhance preparedness against chemical and biological weapons used by terrorists should be pursued in a broader CBRN context. At the same time, preparedness must address the entire spectrum of chemical and biological risk factors, from naturally occurring diseases to chemical or biological accidents, to deliberate releases, including by criminals and terrorists.
- Third, organizations and entities that provide or facilitate legal assistance with regard to the adoption and national application of instruments relevant to countering chemical and biological terrorism, such as the International Maritime Organization (IMO), the Implementation Support Unit for the Biological Weapons Convention (ISU/BWC), the World Organisation for Animal Health (OIE), the Organisation for the Prohibition of Chemical Weapons (OPCW) and the UN Office for Drugs and Crime (UNODC), should enhance their coordination and information sharing. CTITF could facilitate the institutionalization of a platform for regular exchanges between these organizations.
- Fourth, technical assistance programmes to prepare for and prevent terrorist attacks involving the use of chemical or biological weapons or materials should take a stronger regional approach so as to increase effectiveness, impact and sustainability. Regional approaches encourage ownership within the region and often lead to more effective and robust solutions to security problems in a given context.
- Fifth, with respect to the emergency relief response to situations involving the use of chemical or biological weapons that have a potential of causing mass casualties, the United Nations Disaster Assessment and Coordination (UNDAC) mechanism should be formally adopted as the mechanism for coordinating relief efforts, and arrangements should be made accordingly involving OPCW, the World Health Organization (WHO), the International Criminal Police Organization (INTERPOL) and the UN Office for the Coordination of Humanitarian Affairs (OCHA).
- Sixth, better coordination is needed at the international level in the area of training and exercise to prepare to respond to terrorist uses of chemical or biological weapons. Different forms of training and exercises are important, from specialized skill-oriented training to table-top and command post exercises and full-scale field exercises.
- Seventh, with regard to early warning and detection of chemical or biological releases, the study concludes that as the existing systems for disease surveillance and early warning of disease outbreaks are being further enhanced, the coordination between the different systems for human, animal and plant disease surveillance and systems in place to protect the food chain should be improved. Also, response measures relate to biological attacks on plants and

animals require additional attention given the risks to the food chain as well as the potential economic impact of such attacks.

- Eighth, the working relationship among INTERPOL, organizations that have mandates to investigate alleged uses of chemical or biological weapons (OPCW, UN Office for Disarmament Affairs (UNODA)), organizations with mandates in the response to incidents involving such weapons (OPCW, OCHA) and organizations that as part of their mandate in public and animal health will have a role (WHO, the Food and Agriculture Organization of the United Nations (FAO), OIE) should be further enhanced. This is important to ensure that the objectives of an incident response to save lives can be met as best as possible while appreciating the fact that the incident scene is a crime scene and that steps must be taken to preserve evidence and to apprehend the perpetrators.
- Ninth, more attention should be given to the recovery phase after a chemical or biological agent release by terrorists: there is a need to develop concepts for technical assistance and advice with regard to decontamination in urban areas after such attacks, and to strengthen assistance and advice regarding medical treatment and recovery after a chemical or biological attack by terrorists. To fill these gaps, coordinated action will be needed involving all relevant organizations and agencies that have in-house technical expertise in these areas or that can facilitate access to such expertise from their networks and partners (including OPCW, ISU/BWC, WHO, FAO and OIE).
- Finally, better preparation and coordination are needed in managing public information in crisis situations caused by chemical or biological terrorism attacks. The technical complexity of such situations, the involvement of multiple actors on the international scene, and the absence of a single lead agency are all factors that pose challenges for an authoritative, accurate, consistent and timely release of information to the public by the different agencies concerned. It is important to have an information sharing and coordination mechanism in place in the form of a Crisis Communications Group, to agree on its modalities in advance and to review its operation from time to time so that, in times of crisis, it can be activated without delay and continue to function smoothly throughout the crisis.

Disclaimer

The views expressed in the report including its analysis and recommendations do not necessarily reflect positions and views of all contributing entity which were invited to provide inputs to this report, describing their specific mandates and activities in relevant areas. Follow-up on the recommendations outlined above will be determined by the individual entities of the Working Group as appropriate and within their respective mandates.

Acknowledgement

The CTITF/WMD Working Group is grateful to the European Commission for its generous financial support of this study.

I. Background

Mandate from the Global Counter-Terrorism Strategy

1. The United Nations General Assembly adopted the Global Counter-Terrorism Strategy (A/RES/60/288) on 8 September 2006 by consensus, as a strategic framework and plan of action for prevention and response to terrorism. It identified four pillars of action: measures to address the conditions conducive to the spread of terrorism; measures to prevent and combat terrorism; measures to build the capacity of States to prevent and combat terrorism and to strengthen the role of the United Nations system in that regard; and measures to ensure respect for human rights for all and the rule of law as the fundamental basis for the fight against terrorism.
2. Paragraph 17 of Section II of the United Nations Global Counter-Terrorism Strategy invites "... the United Nations to improve coordination in planning a response to a terrorist attack using nuclear, chemical, biological or radiological weapons or materials, in particular by reviewing and improving the effectiveness of the existing interagency coordination mechanisms for assistance delivery, relief operations and victim support, so that all States can receive adequate assistance. In this regard, we invite the General Assembly and the Security Council to develop guidelines for the necessary cooperation and assistance in the event of a terrorist attack using weapons of mass destruction".
3. The United Nations Counter-Terrorism Implementation Task Force (CTITF) was established in 2005 by the Secretary-General to ensure coordination and coherence of United Nations system-wide counter-terrorism efforts. It now consists of 31 entities inside and outside the United Nations system and supports the implementation of the UN Global Counter-Terrorism Strategy.
4. Specifically, the CTITF Working Group on Preventing and Responding to Weapons of Mass Destruction (WMD) Attacks (hereinafter, the Working Group) was established to strengthen the exchange of information and knowledge among relevant UN entities and international organizations related to response to terrorist attacks involving WMDs. The membership of the Working Group includes both UN and non-UN entities.

Objectives and methodology in producing the report

5. The overall methodology adopted by the Working Group has already been described in detail in a previous report.¹ In the first phase of the Working Group's

¹ UN CTITF, Working Group on Preventing and Responding to Weapons of Mass Destruction Attacks, "Interagency coordination in the event of a nuclear or radiological terrorist attack: current status, future prospects" (August 2010).

action plan, the Members of the Working Group familiarized themselves with current interagency mechanisms in the context of nuclear and/or radiological weapons and materials, and identified opportunities for strengthening this coordination. The current study is a similar analysis of existing interagency mechanisms, mandates, capacities and activities in the context of chemical and biological weapons.

6. To share experience and information on these existing mechanisms and mandates, a meeting of Working Group members and of other entities was hosted by the Organisation for the Prohibition of Chemical Weapons (OPCW) on 16 and 17 May 2011 at OPCW headquarters in The Hague. Follow-up consultations were held to complete the survey of existing mandates, responsibilities and activities. All information used in this report is in the public domain.
7. The Working Group, in its consideration of these matters, started from the basic principles and definitions with regard to chemical and biological weapons as set out in the pertinent global treaties: the Chemical Weapons Convention of 1997 and the Biological Weapons Convention of 1975. Both treaties use a weapons definition that is based on what is known as the “General Purpose Criterion”, and whereby *any* toxic or precursor chemical (including toxins) as well as *any* biological agent is defined as a chemical or biological weapon, respectively, unless it was intended/justified for legitimate purposes and provided that types and quantities are consistent with such purposes. Both definitions also include munitions and devices designed specifically to disseminate these agents, and in the case of chemical weapons the definition also includes specially designed equipment used in their employment. As a consequence, *any* toxic chemical or biological agent can qualify as a chemical or biological weapon irrespective of whether it is weaponized or stored in bulk, and irrespective of whether it is covered by any sort of control list or the Schedules of Chemicals of the Chemical Weapons Convention, solely depending on whether it was intended for hostile use or a legitimate purpose.
8. A related consideration is that chemical and biological weapons and materials not only target human beings, but also animals and in the case of biological weapons and materials, plants. The scope of chemical and biological terrorism is wider than threats to the population and individuals; it also includes agroterrorism and threats to the food chain.
9. Based on these broad concepts, the CTITF study compiled information on the currently existing mechanisms for interagency coordination, mandates, capacities and activities of Working Group Members and other UN and international entities, which are relevant to the prevention of and preparedness for, as well as the response to and recovery after, the possible use of chemical or biological weapons and materials by terrorists. This information was verified by the respective organizations and agencies for accuracy.
10. The subsequent analysis was divided into four subject areas: prevention and preparedness with regard to both chemical and biological terrorist attacks; response to terrorist attacks using chemical weapons and materials; response to terrorist attacks using biological weapons and materials; and public information

management. This subdivision acknowledged that while prevention and preparedness of an integrated CBRN approach is important, the response mechanisms will have to address the specifics of a chemical or biological attack which are different given the characteristics of the agents involved. The analysis finished with a consideration of issues related to public information management in crisis situations caused by terrorist uses of chemical or biological weapons.

11. This analysis was built around a sequence of characteristic steps in the overall chain of events from prevention to preparedness, response and recovery. The different mandates and activities currently implemented by the Working Group members and other UN and international entities were mapped against the different requirements in this chain from prevention to response and recovery. This allowed identifying gaps in the landscape and areas where additional coordination efforts are needed. The analysis concluded with a set of recommendations for how to improve the response to chemical and biological terrorism at the international level and to assist countries and regions to enhance their preparedness and response capacity.
12. The context for a coordinated response of the international community to a chemical or biological terrorist attack is very different from the situation in relation to such an attack involving the use of radiological and nuclear materials. For radiological and nuclear emergencies the International Atomic Energy Agency (IAEA) has a central coordinating role and responsibility. There is also an established interagency coordination mechanism through the Inter-Agency Committee on Radiological and Nuclear Emergencies (IACRNE) that has been utilized and tested in a number of instances. The scope of activities covered by the Committee is based on two legally binding treaties: the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of Nuclear Accident or Radiological Emergency. No such single lead organization or legal framework exists for chemical or biological terrorist attacks. There is also no interagency coordination mechanism that encompasses all relevant international organizations, but there are number of separate coordination mechanisms, some of which are interconnected. The absence of an overall interagency coordination mechanism and defined lead agencies leads to the need for a more complex networking approach.
13. The recommendations following the analysis in this report remain preliminary. It will be necessary for the Working Group to review all aspects of preparedness for, prevention of and response to a chemical or biological terrorism attack in a broader CBRN context—a process that will continue after the publication of the report.

II. Compilation of existing interagency mechanisms

14. The CTITF Working Group Report on “Interagency co-ordination in the event of a nuclear or radiological terrorist attack: current status, future prospects” already pointed out that “it is important that the roles and functions of the various agencies that comprise the working group are clearly understood if effective, coordinated and timely assistance is to be provided to a State that has been subject to a terrorist act involving CBRN. Coordination *between* organizations is indeed essential to avoid duplication of efforts and to enhance the assistance that can be provided to States. It is therefore of fundamental importance to understand existing capacities, not only of individual entities but of the existing interagency mechanisms that currently work to address nuclear and/or radiological emergencies, as well as chemical and biological emergencies (even if such mechanisms have not, traditionally, focused on incidents that arise due to terrorism or other criminal acts)”.²
15. This chapter addresses the *existing interagency* mechanisms that are relevant to the prevention of and response to chemical and biological emergencies. Other mechanisms and responsibilities, i.e. those that are associated with individual organizations and agencies, are discussed in chapter III.

United Nations Disaster Assessment and Coordination (UNDAC) mechanism

16. There is no dedicated international interagency mechanism to coordinate the response to terrorist events involving the release of toxic chemicals or biological agents. There are, on the other hand, interagency mechanisms that have evolved in the context of humanitarian assistance and emergency response after natural catastrophes, such as earthquakes. The primary interagency mechanism to coordinate responses to emergencies is the United Nations Disaster Assessment and Coordination (UNDAC) mechanism. This mechanism was established as part of the international emergency response system for sudden-onset emergencies. It is designed to help the United Nations and Governments of disaster-affected countries during the first phase of a sudden-onset emergency. UNDAC also assists in the coordination of incoming international relief at the national level and/or at the site of the emergency. UNDAC teams can deploy at short notice (12-48 hours) anywhere in the world. They are provided free of charge to the disaster-affected

² CTITF Working Group “Interagency coordination in the event of a nuclear or radiological terrorist attack: current status, future prospects” (August 2010), section II, paragraph 9.

country, and are deployed upon the request of the United Nations Resident or Humanitarian Coordinator and/or the affected Government.

17. The UNDAC mechanism has been adopted by the Organisation for the Prohibition of Chemical Weapons (OPCW) as the basis for its mechanism to provide assistance to States Parties of the Chemical Weapons Convention (CWC) in response to a request for assistance in case of use or threat of chemical weapons. The OPCW has clarified that this mechanism can also be invoked if chemical weapons have been used by terrorists. Details of the OPCW mandates and mechanisms in response to chemical threats associated with terrorism are set out in the subsequent chapter.

Global Outbreak Alert and Response Network (GOARN)

18. A second relevant existing mechanism is the Global Outbreak Alert and Response Network (GOARN). It is a technical collaboration of more than 190 existing institutions and networks that pool human and technical resources for the response to disease outbreaks of international importance. The Network provides an operational framework to link this expertise and skill to keep the international community constantly alert to the threat of outbreaks and ready to respond. The network contributes to global health security by combating the international spread of outbreaks, ensuring that appropriate technical assistance reaches affected States rapidly, and contributing to long-term epidemic preparedness and capacity-building.³
19. The World Health Organization (WHO) coordinates international outbreak response using resources from the network. WHO also provides the secretarial service for the Network (e.g. employment of project manager, support for the Steering Committee and structures) as part of its Alert and Response Operations. In addition, protocols for network structure, operations and communications have been developed to improve coordination between the partners.
20. GOARN focuses technical and operational resources from scientific institutions in WHO Member States, medical and surveillance initiatives, regional technical networks, networks of laboratories, United Nations organizations (e.g. United Nations Children's Fund (UNICEF), United Nations High Commissioner for Refugees (UNHCR)), the Red Cross (International Committee of the Red Cross, International Federation of Red Cross and Red Crescent Societies and national societies) and international humanitarian non-governmental organizations (e.g. *Médecins sans Frontières*, International Rescue Committee, *Merlin* and *Epicentre*). Participation is open to technical institutions, networks and organizations that have the capacity to contribute to international outbreak alert and response.
21. Since April 2000, GOARN has been bringing agreed standards to international epidemic response through the development of Guiding Principles for International Outbreak Alert and Response and operational protocols to standardize epidemiological, laboratory, clinical management, research, communications, logistics support, security, evacuation and communications systems. The Guiding

³ See <http://www.who.int/csr/alertresponse/en/>.

Principles of International Outbreak Alert and Response aim to improve the coordination of international assistance in support of local efforts by partners in the Global Outbreak Alert and Response Network.⁴

Global Early Warning System (GLEWS)

22. A second alert system of relevance in the context of bio-terrorism is the Global Early Warning System (GLEWS).⁵ This is a joint disease tracking system that combines and coordinates the alert and response mechanisms of the World Organisation for Animal Health (OIE), the Food and Agriculture Organization of the United Nations (FAO) and WHO. It assists in the prediction, prevention and control of animal disease threats, including infectious diseases that can be transmitted from animals to humans. The system is used to detect and characterize disease outbreaks and to validate (or discard) rumors.
23. Through sharing of information on disease alerts, the capacity for early warning of the three organizations can be enhanced, unjustified duplication of efforts avoided and in some instances the geographical coverage of disease alerts improved. For zoonotic events, alerts of animal outbreaks provide direct early warning so that human surveillance can be enhanced and preventive action taken. Similarly, there may be cases where human surveillance is more sensitive and alerts of human cases precede known animal occurrence of disease. There is also added value in combining and coordinating the verification processes and sharing analysis and assessments of ongoing outbreaks. There remain issues to be resolved, including whether and how risk assessments undertaken by the different agencies can be combined (what data can be shared, how much and which specific details).
24. Each organization has designated GLEWS focal points that constitute the GLEWS Task Force (GTF). The GTF is responsible for implementing the GLEWS Agreement, for elaborating and updating the GLEWS work plan and for providing guidance to and supervision of the Working Groups, according to the Work Plan approved by the GLEWS Management Committee. Furthermore, the GTF defines key early warning activities, linking with the existing response mechanisms. The GTF also revises, when needed, the GLEWS technical document, including updates of the Standard Operating Procedures and Work Plan. The focal points are the points of entry into each organization and act as the interface between the GLEWS network and the respective early warning and response systems in use in these organizations, including in their respective regional offices. Other experts involved in disease surveillance and emergency response interact with the GLEWS focal points according to the situation.
25. For the control of animal disease epidemics with a complex epidemiological appearance or with the potential for regional or international spread and/or a public health dimension, OIE member countries are legally obliged to report significant animal and zoonotic disease events to OIE so that it can alert the

⁴ See <http://www.who.int/csr/outbreaknetwork/guidingprinciples/en/index.htm>.

⁵ Agreement on GLEWS signed by the 3 organizations, OIE, FAO and WHO, on 18 July 2006.

international community to take science-based sanitary measures—laid out in the *OIE Codes*—to mitigate against the risk of further international spread. FAO and OIE have a mechanism to provide a rapid response to animal and zoonotic disease events (CMC-AH) and in the case of zoonotic disease events the partner organizations may activate a tripartite (WHO, FAO and OIE) response.

Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs)

26. A fourth existing interagency mechanism with relevance to bioterrorism is the Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs).⁶ This global framework combines the strengths of OIE and FAO and is composed of a global component at the OIE and FAO headquarters level and of regional and subregional components. The ultimate aim of GF-TADs is to control and eradicate the most significant animal diseases including those transmissible to humans.
27. As a joint FAO/OIE mechanism, the GF-TADs endeavours to empower regional alliances in the fight against transboundary animal diseases (TADs), to provide for capacity-building, to assist in establishing programmes for the specific control of certain TADs based on regional priorities and to convince donors to support these activities. This initiative is also being supported by the WHO.
28. The specific aim for GF-TADs is to establish subregional support units (RSUs), integrated in regional specialized organizations (RSOs). In the region, OIE and FAO headquarters, regional commissions and representations support the RSOs and RSUs for the design and the implementation of regional and national programmes.

International Food Safety Authorities Network (INFOSAN)

29. The International Food Safety Authorities Network (INFOSAN) is a joint initiative between WHO and FAO. This global network includes 177 Member States. Each has a designated INFOSAN Emergency contact point for communication between national food safety authorities and the INFOSAN secretariat regarding urgent events. Recognizing that food safety is often a shared responsibility, countries are also asked to identify focal points in other ministries or relevant agencies to receive INFOSAN communications.
30. The network aims to:
 - Promote the rapid exchange of information during food safety related events;
 - Share information on important food safety related issues of global interest;
 - Promote partnership and collaboration between countries;
 - Help countries strengthen their capacity to manage food safety risks.

⁶ Agreement on GF-TADs signed by the OIE and FAO on 24 May 2004. WHO is a permanent member of the Global GF-TADs Steering Committee.

31. As part of its routine activities, INFOSAN publishes Information Notes, in the six official WHO languages, to provide its members with summaries on relevant food safety issues. Guidance is being developed on a number of topics related to food safety emergency response and management.
32. INFOSAN also facilitates the exchange of food safety information and experience among its members. In collaboration with the WHO Global Foodborne Infections Network (GFN), training is provided on the reporting of international food safety events to the global community.
33. INFOSAN systematically monitors for potential international food safety related events in addition to receiving information through INFOSAN Emergency contact points. This monitoring is done in close collaboration with the WHO Alert and Response Operations programme as part of WHO event detection activities. Working under the umbrella of the International Health Regulations (2005), INFOSAN Emergency facilitates the identification, assessment and management of food safety events of possible international concern. Collaborating closely with countries, alerts may be developed and disseminated to the INFOSAN Emergency network. To help respond to country requests for assistance during food safety emergencies, INFOSAN Emergency partners with the Global Outbreak Alert and Response Network (GOARN).
34. INFOSAN also works with the Global Early Warning System for Major Animal Diseases, including Zoonoses (GLEWS) to promote seamless action throughout the food chain continuum.⁷

⁷ See also http://www.who.int/foodsafety/fs_management/infosan/en/.

III. Compilation of existing mechanisms and responsibilities of CTITF WMD Working Group entities and other international organizations

35. No single UN or other international organization/entity has the lead in the response to terrorist attacks using chemical or biological weapons. Instead, many entities conduct activities and have mandates that contribute to prevention, preparedness, response and recovery regarding such attacks. In certain cases, these activities and responsibilities are part of a broader set of responsibilities in the area of counter-terrorism. In other cases, these activities are not directed specifically at responding to terrorist attacks using chemical or biological weapons and materials but they nevertheless contribute to strengthening the capacity to respond to such attacks. This section gives an overview of these mandates, activities and mechanisms for each of the entities involved in the survey.

United Nations Department of Public Information (DPI)

36. DPI informs a global audience on the activities and aims of the United Nations through a multiplicity of outreach efforts and campaigns, including the United Nations website <http://www.un.org>, radio and television, press releases, publications, documentary videos, special events, public tours and library facilities.
37. DPI is comprised of three divisions: the News and Media Division, the Outreach Division and the Strategic Communication Division. It also has a network of 62 UN information centres (UNICs).
38. The DPI can have a critical role in coordinating public information in the event of a chemical or biological terrorist attack. This is of particular importance in the case of crisis situations caused by the release of toxic chemicals or biological agents. The technical complexity of such situations, the involvement of multiple actors at the international scene, and the absence of a single lead agency are all factors that pose challenges for an authoritative, accurate, consistent and timely release of information to the public by the different agencies concerned. It is important to have an information sharing and coordination mechanism

in place in the form of a crisis communications group, to agree on its modalities in advance and to review its operation from time to time so that, in times of crisis, it can be activated without delay and continue to function smoothly throughout the crisis.

ECOSOC Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

39. The ECOSOC Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals has been developing Recommendations on the Transport of Dangerous Goods since the 1950s, which are now presented under the form of “Model Regulations on the transport of dangerous goods”.⁸ The secretariat services are provided by the United Nations Economic Commission for Europe (UNECE).
40. ECOSOC established this Committee in the understanding that governments, intergovernmental organizations and international organizations, when revising or developing regulations regarding the transport of dangerous goods, would conform to the principles set out in these Recommendations, thus contributing to worldwide harmonization in the transport of dangerous goods. As a result, the Model Regulations annexed to the United Nations Recommendations form the basis for specific regulations of all transportation modes (including road, rail and inland waterway which are not covered by global agencies such as the International Maritime Organization (IMO) or the International Civil Aviation Organization (ICAO), but which are covered nationally or by regional organizations such as UNECE). They do not apply to the bulk transport of dangerous goods in sea-going or inland navigation bulk carriers or tank-vessels, which is subject to special international or national regulations.
41. Since 2003, the Model Regulations contain, in addition to the safety provisions, security provisions with regard to transportation of dangerous goods. This chapter contains general security provisions applicable to all persons engaged in the transport of all kinds of dangerous goods, notably security awareness training requirements for these individuals. They also set out special provisions with regard to the transportation of “high-consequence dangerous goods”. These are goods which have the potential for misuse in a terrorist incident and which may, as a result, produce serious consequences such as mass casualties or mass destruction. They are listed in an indicative list including, for example, explosives, flammable liquids in tanks, certain radioactive material, toxic gases, category A infectious substances, etc.
42. For transport of high-consequence dangerous goods, carriers, consignors and others (including infrastructure managers) are required to put in place security plans which must meet a set of specific requirements with regard to identifying responsibilities,

⁸ Seventeenth revised edition of the Recommendations on the Transport of Dangerous Goods, Model Regulations (2011).

record keeping, operational reviews, risk reduction measures to be taken, incident reporting, testing and evaluation of security procedures, security transportation updates and measures to control the distribution of that information.

43. In practice, for maritime and air transport, these transport security provisions have been transposed integrally in the IMO International Maritime Dangerous Goods Code and the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air, but also on a recommendatory basis only as a supplement to their security legal instruments (see paragraphs 53-64). For inland transport, they have been included, for mandatory application and with minor variations, in the three main legal instruments governing international inland transport: the European Agreement concerning the international carriage of dangerous goods by road (ADR, 47 contracting parties), the European Agreement concerning the international carriage of dangerous goods by inland waterways (ADN, 16 contracting parties), and the Regulations concerning the International Carriage of Dangerous Goods by Rail (RID, 44 contracting parties), and in the national legislation of all EU countries through domestic application of ADR, RID and ADN. Effective implementation for inland transport, through national legislation, in countries which are not parties to international transport of dangerous goods legal instruments is more difficult to monitor.

Food and Agricultural Organization of the United Nations (FAO)

44. The FAO helps countries prevent, mitigate, prepare for and respond to emergencies that affect food security and agricultural productivity. It does not have an explicit mandate with regard to chemical or biological terrorism on agricultural targets or the food chain. Several of FAO's objectives are, nevertheless, of relevance: strengthening capacity for disaster preparedness and impact mitigation of emergencies affecting food security, assessing needs and devising programmes which help transition from relief to reconstruction, and strengthening local capacities to cope with risks through agricultural practices, technologies and support services, to reduce vulnerability and increase resilience.
45. FAO works on response measures for sudden and slow-onset disasters, as well as protracted crises, including inter alia transboundary pests and animal diseases, as well as chemical hazards and radiological release. Its Animal Production and Health Division (AGA) is frequently involved in emergency responses triggered either by the incursion of severe animal diseases, which have the ability to spread rapidly over large geographical areas ("transboundary animal diseases", TADs) into previously unaffected countries or regions, or by natural and man-made disasters such as droughts, floods, earthquakes, civil strife etc. Both types of emergencies have in common that they can severely affect livestock-related livelihoods.
46. The AGA's Animal Health Service (AGAH) is FAO's source of technical expertise required for the rapid and effective control of transboundary disease emergencies. AGAH activities combine early disease detection with early warning and early response. Early warning is based on disease intelligence and surveillance carried

out jointly with the World Organisation for Animal Health (OIE) and the World Health Organization (WHO). FAO, in collaboration with OIE, operates the Crisis Management Centre—Animal Health (CMC-AH)⁹ as a rapid response mechanism for animal disease emergencies. The Centre provides technical and operational assistance to help governments develop and implement immediate term solutions to prevent or stop disease spread. The CMC-AH can field a rapid deployment team within 72 hours of an official request for or acceptance of assistance. Teams are composed of emergency response and animal health experts. Their activities may include support to governments with rapid assessments, recommendations of control measures, development of emergency action plans, provision of an emergency funding package, implementation of communication and compensation policies, coordination and resource mobilization.

47. With a direct link to the FAOs Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases (EMPRES), the FAO-OIE CMC-AH tracks the animal disease situation worldwide on a daily basis through information received from the Global Early Warning System (GLEWS). Daily risk analysis and decision-making allow the Centre to stay abreast of developments to respond rapidly and effectively. Constant collaboration is the basis of all FAO-OIE CMC-AH operations. When required, the OIE and WHO complement FAO technical expertise at every step from initial tracking of disease situations to cross-sector analysis and post-mission follow up. To facilitate the transition from immediate emergency assistance to longer-term support, the Centre initiates resource mobilization and project proposal formulation efforts for affected countries and regions.
48. FAO operates a sample and tissue shipping service and has access to OIE-accredited as well as its own accredited laboratories in the area of animal diseases. With regard to plant diseases, the solutions remain more ad hoc.
49. The livestock component of emergency responses to natural disasters is technically managed primarily by the AGAs Livestock Production Systems Branch (AGAS). The immediate response can consist of the provision of veterinary drugs, feed or replacement stock. To optimize livestock emergency response, AGAS is contributing to the development of Livestock Emergency Guidelines (LEGS) within a consortium formed by Tufts University, the International Red Cross, *Vétérinaires sans Frontières* and the African Union.
50. To address threats to the human food chain, a comprehensive and interdisciplinary approach is essential. The Food Chain Crisis Management Framework (FCC) is FAO's instrument for action in response to threats to the human food chain at all stages from production to consumption. As an interdepartmental approach, it comprehensively addresses risk assessment, risk management and risk communication requirements in the areas of agriculture, fisheries, aquaculture

⁹ Following the inauguration of the Crisis Management Centre—Animal Health at FAO headquarters by the Directors General of FAO and OIE on 12 October 2006, FAO and OIE have increasingly cooperated with respect to control of animal disease crises and to veterinary public health crises originating at the production (live animal) level of the food chain. The most recent MoU between OIE and FAO on the Crisis Management Center—Animal Health was signed on 31 January 2011.

and forestry. It also reflects FAO's responsibilities in response to nuclear emergencies. The focus is on prevention of and response to emergencies threatening the food chain and on necessary steps for rehabilitation. Within this framework, the Intelligence and Coordination Unit ensures coordination within the various constituents of the FCC; EMPRES addresses prevention and early warning across the entire food chain; and the rapid-, medium- and long-term response ensures adequate response to verified or potential threats through technical and operational capacities of FAO.

51. EMPRES has the mandate to address prevention and early warning across the entire food chain. It is constituted of three systems: EMPRES Animal Health (animal diseases, including aquatic animal diseases), EMPRES Plant Protection (plant pests and diseases including desert locust and forest plant pests and diseases) and EMPRES Food Safety. Its mission is to promote the effective containment and control of the most serious epidemic pests and diseases and food safety threats through international cooperation involving early warning, early reaction, enabling research, and coordination.
52. The Food Chain Crisis—Emergency Management Unit (FCC-EMU) manages the response to food chain emergencies. The FCC-EMU, located in the Emergency Operations and Rehabilitation Division, is the operational, emergency arm of the FCC. The FCC-EMU is divided into the following three areas: Animal Health through the Emergency Centre for Transboundary Animal Disease Operations (ECTAD), Plant Protection through the Emergency Centre for Transboundary Plant Pests (ECTPP), and Food safety. The FCC-EMU provides the core operational capacity for the rapid-, medium- and longer-term response to potential or verified substantial emergencies threatening the food chain (animal diseases, plant pests and food safety) and for the related medium-term rehabilitation.

International Civil Aviation Organization (ICAO)

53. ICAO is the United Nations specialized agency for the safe and orderly development of international civil aviation, and sets related Standards and Recommended Practices (SARPs) to its 190 Member States. Among its Strategic Objectives are to enhance global civil aviation safety and security, which are of direct relevance to the mitigation of chemical and biological weapons terrorism threats.
54. Provisions for international aviation security were first disseminated as Annex 17 to the Convention on International Civil Aviation (Chicago Convention) in 1974, and since then have been improved and updated 11 times. A 12th amendment to the Annex has been approved by the ICAO Council and is applicable as of 1 July 2011. Initially, ICAO security-related work focused on developing SARPs. Over the years, its work in the field of aviation security broadened and today is essentially carried out in three interrelated areas: policy initiatives, audits focused on the capability of contracting States to oversee their aviation security activities, and assistance to States that are unable to address serious security deficiencies highlighted by ICAO audits. Security audits are performed under the Universal Security Audit Programme, which is managed by the Aviation

Security Audit (ASA) Section. Short-term or urgent security-related assistance to States is facilitated by the Implementation Support and Development (ISD) Programme, which is managed by the ISD-Security Section, and longer-term project assistance is available from the ICAO Technical Co-operation Bureau.

55. With regard to mitigating terrorist threats related to toxic chemicals and biological agents, ICAO has taken steps to:
 - Prevent direct attacks on civil aviation through the adoption of international treaties and Annex 17 to the Chicago Convention;
 - Prevent the use of civil aviation as a vehicle or medium to attack other targets;
 - Facilitate rescue, assistance and other related missions; and
 - Criminalize the act of attacks.
56. To prevent direct attacks on civil aviation, ICAO can make use of measures to enhance general preparedness including the development of contingency plans, risk communications, risk-based measures, including screening, a mechanism for the exchange of information, and, in special cases, coordination with member States regarding flight restrictions or even airport closures. For example, SARPs border controls in airports have been made available to countries under Annex 9 of the Chicago Convention. Annex 18 contains SARPs relating to the safe transport of dangerous goods by air, including reference to certain items forbidden for such transport.
57. In the area of prevention of using civil aviation as a vehicle or medium to attack other targets, ICAO focuses on screening, background checks, information exchanges and the establishment of points of contact. More stringent cargo security measures are being explored, in coordination with other regulatory bodies and industry. A special working group of ICAO's Aviation Security Panel is finalizing its recommendations on practical measures to distinguish between high-risk and conventional cargo shipments, as well as on the implementation of appropriate methods to screen high-risk cargo.
58. ICAO measures in the field of rescue and assistance are directed at enhancing the security of aircrafts, airports, air navigation systems and generally speaking the improvement of capacities in search and rescue.
59. At the 2010 Diplomatic Conference on Aviation Security, the Beijing Instruments (Convention on the Suppression of Unlawful Acts Relating to International Civil Aviation, and Protocol Supplementary to the Convention for the Suppression of Unlawful Seizure of Aircraft) were adopted which, inter alia, require States parties to take legislative steps to criminalize the use of biological, chemical or nuclear (BCN) weapons or similar substances from or against civil aircraft to cause damage; a threat to commit such an offence is also punishable. More specifically, the Convention contains the provisions to prohibit (1) releases or discharges from an aircraft in service of any BCN weapon or explosive, radioactive, or similar substances in a manner that causes or is likely to cause death, serious bodily injury or serious damage to property or the environment; (2) uses against or on board an aircraft in service of any BCN weapon or explosive, radioactive, or similar substances in a manner that causes or is likely to cause death,

serious bodily injury or serious damage to property or the environment; and (3) transports any BCN weapon, as well as any equipment, materials or software or related technology that significantly contributes to the design, manufacture or delivery of a BCN weapon without lawful authorization and with the intention that it will be used for such purpose.

International Maritime Organization (IMO)

60. IMO activities with regard to the prevention of chemical and biological terrorism are part of a broader spectrum of work to ensure the security of international shipping. The legal basis for these activities include the International Convention for Safety of Life at Sea (SOLAS)—specifically, Chapter XI-2—and the International Ship and Port Facility Security Code (ISPS Code). The combined measures of SOLAS and the ISPS Code aim at preventing security threats involving (1) the ship as a target; (2) the use of a ship as a weapon; and (3) the use of a ship as a means for transporting either persons intending to cause a security incident or the means for such an incident.
61. The ISPS Code was adopted in 2002 by a Conference of Contracting Governments to the 1974 International Convention for the Safety of Life at Sea. It aims, among other things, to establish an international framework for cooperation between contracting Governments, government agencies, local administrations and the shipping and port industries to detect security threats and take preventive measures against security incidents affecting ships or port facilities used in international trade and to establish relevant roles and responsibilities at the national and international levels. The ISPS Code became mandatory on 1 July 2004.
62. In October 2005, the 1988 Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA Convention) and its Protocol relating to Fixed Platforms Located on the Continental Shelf (two of the twelve universal counter-terrorism conventions) were updated by two new protocols. Both new instruments entered into force in July 2010. The protocols aim to provide an adequate basis for the arrest, detention and extradition of alleged terrorists acting against shipping or ports or when using ships to perpetrate acts of terrorism.
63. IMO implements a number of capacity-building initiatives, including a Global Programme on Maritime Security with country advisory missions and regional and national seminars and workshops as well as training courses, a maritime security “Train-the-Trainer” programme, the funding of maritime security programmes through its Technical Co-operation Fund and activities conducted at the regional and subregional levels to strengthen maritime security. States are able to obtain assistance and advice through the Integrated Technical Co-operation Programme which enable them to meet their obligations under the various international treaties. IMO regulatory and capacity-building work in the field of counter-terrorism is conducted in cooperation with the United Nations, its specialized agencies and bodies as well as other international organizations.
64. IMO, furthermore, has been cooperating with the UN Counter-Terrorism Executive Directorate (CTED) and participates in on-site visits in selected countries

to assess and evaluate the implementation of those aspects of UN Security Council resolution 1373(2001) which fall under its purview.

International Criminal Police Organization (INTERPOL)

65. The four core functions of INTERPOL are all relevant in the context of prevention of and response to biological and chemical terrorism:
 - Secure global police communication services. The INTERPOL global police communications system enables police in all member countries to request, submit and access vital data instantly in a secure environment.
 - Operational data services and databases for police. Member countries have direct and immediate access to a wide range of databases including information on known criminals, fingerprints, DNA profiles and stolen or lost travel documents. INTERPOL also disseminates critical crime-related data through a system of international notices.
 - Operational police support services. INTERPOL provides law enforcement officials with emergency operational support activities, especially in its priority crime areas. A Command and Coordination Centre operates 24 hours a day, seven days a week and can deploy an Incident Response Team to the scene of a serious crime or disaster upon request of a member country.
 - Police training and development. INTERPOL provides focused police training initiatives with the aim of enhancing the capacity of member countries to combat transnational crime and terrorism effectively. This includes sharing knowledge, skills and best practices in policing and establishing global standards.
66. INTERPOL has extensive cooperation with other international organizations such as UNODC, IAEA and WHO. INTERPOL also cooperates with UNODA, ISU/BWC and the EU. The CBRN Terrorism Prevention Program is also planning to engage OPCW in further cooperation on the chemical terrorism prevention side.
67. The INTERPOL CBRN Terrorism Prevention Program is comprised of three terrorism prevention units: Bioterrorism Unit (initiated in 2005), Radiological and Nuclear Unit (launched in 2010), and Chemical and Explosives Terrorism Unit (to be launched early 2012).
68. The INTERPOL CBRN Terrorism Prevention Program advocates strengthening the three pillars of an effective police CBRN programme in member country services:
 - Criminal intelligence: INTERPOL provides member country police services timely intelligence regarding the threat posed by terrorism and other crimes using CBRN materials.
 - Preventive measures: Prevention of terrorism and other crimes using CBRN materials includes a large range of measures, such as tripwire programmes, which include industry connectivity regarding orders; precursor analysis; plant security and transportation liaison; supporting the implementation

of appropriate CBRN legislation and the reporting of suspicious activities and possible threats detected by law enforcement officers in one country internationally. Other measures include mass gathering support through the deployment of CBRN capable INTERPOL Major Event Support Teams (upon request) and the publication of guidelines for best practices.

- Operations and investigations: INTERPOL stands ready to assist a member country police service with assistance in investigations through consultation, the deployment of Investigative Response Teams (IRTs) upon request, and facilitating communication with colleagues in other countries. The CBRN IRT deployed in support of law enforcement authorities can be briefed, equipped and deployed anywhere in the world within 24 hours. An IRT is typically composed of expert police and support staff, and is tailored to the specific nature of the event and the type of assistance INTERPOL is requested to provide. IRTs can provide a range of investigative and analytical support at the incident site in coordination with the General Secretariat, such as:
 - Conducting searches of INTERPOL databases of nominal data, fingerprints, DNA profiles and travel documents;
 - Issuing notices, which are used to alert the law enforcement community to wanted persons (red notices) or devices and weapons that pose a threat to public safety (orange notices);
 - Coordinating responses to disaster victim identification through a wide network of international experts and laboratories.
 - Providing strategic and tactical analytical expertise.
69. Due to the complex nature of CBRN prevention and response, INTERPOL also recognises that a multi-disciplinary approach is essential and the CBRN programme is fully committed to the interagency approach. Activities need to be coordinated at the national level, ensuring close cooperation and information exchange between the various ministries, agencies and institutions involved: from those specialized in CBRN materials regulation and security, to public health and law enforcement. INTERPOL is committed to working toward replicating this approach on the international level. At INTERPOL, the CBRN Terrorism Prevention Program is working on the global stage, connecting its worldwide network of member countries and maintaining close partnerships with other international agencies that are specialized in the CBRN field. Lastly, INTERPOL strongly advocates the international adoption of the intelligence driven, prevention orientated police/national security investigative methodology concerning terrorism in general and CBRN terrorism in particular.
70. The Bioterrorism Prevention Unit aims to further coordinate, develop and enhance the knowledge, training and capability of law enforcement professionals to recognize, prevent, contain and investigate bioterrorist threats by working across the intelligence, prevention and operational spectrum to raise awareness of the threat, develop police training programmes, strengthen and develop legislation and provide useful tools for police biorelated investigations.

71. Within the bioterrorism prevention programme, a number of key initiatives have been taken, such as:
 - Training sessions including regional training workshops;
 - Train-the-trainer sessions to help participants develop their own training capabilities and response units, and promote increased collaboration among national agencies in different sectors (law enforcement, public health, customs and prosecution);
 - International table-top exercises, which assess national capabilities for preventing biocrimes and help to identify issues critical to a coordinated response;
 - A Bioterrorism Incident Pre-Planning and Response Guide with specific instructions and investigative guidelines;
 - An online Bioterrorism Prevention Resource Centre assesses the vast amount of bioterrorism-related data that is increasingly available, and provides links to the most useful websites, as well as other INTERPOL resources in this area;
 - A set of e-learning modules for law enforcement officers offers basic training in bioterrorism and basic chemical, biological, radiological and nuclear (CBRN) awareness;
 - A biocrimes database (under development) collecting instances of deliberate misuse of biological agents, from the 1900s to 2010, is designed to offer information on bio-crimes and provide further links to biological agents and information about personal protective equipment for use by law enforcement, as well as links to multimedia documenting bioincidents;
 - A curriculum for bioterrorism prevention training for use at police academies worldwide is being developed;
 - A fellowship programme for active police officers working in the field of counterterrorism and bioterrorism preparedness enhances their ability to develop, implement and/or integrate a bioterrorism prevention and response strategy in their country of origin.
72. The Chemical and Explosives Terrorism Prevention Unit will be operational in the first half of 2012 and will be modelled on the experience gained within the Bioterrorism Prevention Unit and the Radiological and Nuclear Terrorism Prevention Unit.
73. As a point of interest, the Radiological and Nuclear Terrorism Prevention Unit is substantially similar in nature to the bioterrorism programme noted above.
74. The 1975 Biological Weapons Convention (BWC) constitutes the global norm against the development, acquisition and retention of biological and toxin weapons. The Convention also prohibits assisting or encouraging anyone to acquire such weapons. Furthermore, the BWC requires States Parties to adopt national implementation measures, and it encourages and protects peaceful uses of biology and international cooperation in this field. The BWC entered into force in 1975 and currently has 164 States Parties; an additional 13 States are signatories but have yet to accede to the treaty.

75. The BWC lacks an international implementing agency comparable to the IAEA or the OPCW. However, the Sixth Review Conference of the BWC in 2006 decided to establish an Implementation Support Unit (ISU/BWC) for the Convention within the Geneva Branch of the United Nations Office for Disarmament Affairs to provide administrative support and assistance; national implementation support and assistance; support and assistance for confidence-building measures under the BWC; and support and assistance in the promotion of universality of the BWC.
76. The ISU/BWC has no operational mandate with regard to the response to biological terrorist threats but it is becoming an entry point for States that require advice and assistance. It has a clearinghouse function as well as facilitating networking, and providing access to competent institutions and organizations and information sources.
77. Furthermore, the ISU/BWC's own work and the processes adopted by BWC States Parties help to strengthen prevention and preparedness with regard to threats involving biological and toxin agents in four ways: by (1) promoting universal adherence to the BWC; (2) strengthening national implementation systems (legislation, regulations, administrative measures, enforcement, self-regulation and oversight by industry and life science research); (3) assistance by States Parties to other parties that have been exposed to danger as a result of violations of the BWC; and (4) mechanisms to detect and investigate possible breaches of the BWC. These and other issues have been discussed among BWC States Parties in an intersessional process that began after the 6th BWC Review Conference, at expert level as well as in an annual conference of the parties. Subject areas covered in these intersessional discussions that are relevant to this survey included national implementation and regional activities (2007), biosafety, biosecurity, oversight, education and outreach (2008), capacity-building for disease surveillance, detection, diagnosis and containment (2009), and the provision of assistance and coordination with relevant organizations upon request by any State Party in the case of alleged use of biological or toxin weapons, including improving national capabilities for disease surveillance, detection and diagnosis and public health systems (2010).
78. To support national implementation of the BWC requirements, the ISU/BWC has compiled for the benefit of BWC States Parties, the obligations derived from the Convention, agreements reached by review conferences and common understandings identified at meetings of States Parties. It also has published the measures and activities currently in use by States Parties and compiled them in a National Implementation Database (NID). A Compendium of National Approaches (CNAs) describes how these measures are operationalized and translated into effective action.
79. In November 2008, the European Union adopted a Council Joint Action 2008/858/CFSP in support of the Biological and Toxin Weapons Convention, which is being implemented through the ISU/BWC. This programme runs from May 2009 to December 2011 and covers the promotion of universal adherence to the BWC, support for the implementation of the BWC by States Parties,

and the promotion of submissions by States Parties of confidence-building measures. The universalization project is designed to provide legal and administrative assistance to States that have taken steps to embark on or to complete the ratification or accession procedure. With regard to assistance to enhance national implementation of the BWC, States Parties can benefit from assistance visits to provide advice and assistance to draft legal and administrative instruments necessary to implement the Convention or to strengthen already existing national implementation capacities. Assistance can involve developing laws, rules and procedures, or other binding guidelines on implementation, law enforcement, penalization and criminalization, physical control, export and transfer control and other measures. States Parties can also request to organize awareness raising meetings or training to support national implementation of the BWC. The awareness raising is intended for decision- and policymakers, other officials, staff in national authorities, researchers and scientists, industry representatives, the non-governmental sector and other relevant audiences.

80. With regard to the provision of assistance to States Parties threatened by violations of the BWC, the 6th Review Conference has clarified that such assistance may be provided under the BWC even before the UN Security Council has taken a decision on the matter. International agencies such as the WHO, the FAO and the OIE may play a role in such assistance operations. National preparedness contributes to the international response capabilities, and it is understood that BWC States Parties may also provide assistance in cases when the attack was by anyone other than a State Party. The 2010 intersessional process developed a series of common understandings on the provision of assistance in response to the use or threat of use of biological and toxin weapons, covering:
 - Approaches towards the provision of assistance (effective cooperation and sustainable partnerships; ensuring efficiency irrespective of the cause of an outbreak; covering diseases and toxins that harm humans, animals, plants or the environment; putting capabilities in place before they are required; making use of appropriate experts and laboratories; taking into account developments in science and technology);
 - The health component of such a response (stressing the need of access to: a relevant diagnostic capacity; sampling and epidemiology tools; diagnostic and detection techniques, tools and equipment; adequate technical expertise; international, regional and national laboratory networks; standards, standard operating procedures and best practices; and research and development of vaccines and diagnostic reagents);
 - The security components of the response (calling for a coordinated government approach in emergency management; addressing the full range of possible implications; clear channels of communication and command; mechanisms for accessing expert advice; regular training and exercises; a comprehensive communication strategy; cross-sector coordination; sufficient financing);
 - The building of response capacity (working together to: ensure access to the necessary components; promote and facilitate the generation, transfer and acquisition of new knowledge and technologies; strengthen human resources;

identify opportunities for collaborative research and sharing advances in science and technology; share biorisk standards and best practices);

- The role of the BWC with regard to providing assistance (bilateral, regional or multilateral consultations for the provision of assistance; developing clearer and more detailed procedures for submitting requests for assistance; developing clearer and more detailed procedures for providing assistance; developing a dataset on sources of assistance; developing a mechanism to request assistance);
- The role of the States Parties (ensuring relevant efforts are in accordance with national laws/regulations; providing timely emergency assistance; working to build their national capacities according to their specific needs and circumstances; working to improve effective cooperation between the health and security sectors by fostering mutual awareness, improving information exchange, and undertaking joint training activities);
- The role of international partners (encouraging relevant organizations to work together more closely; address specific relevant aspects of the threats posed by alleged use; assist States Parties to build their national capacities);
- Outstanding challenges (a need for clear procedures for response and for submitting requests for assistance; a need for additional resources in the human and animal health fields, and especially for plant health; overcoming the sensitivities of working at the interface between public health and security; public health and humanitarian imperatives of a prompt response).

United Nations Office for the Coordination of Humanitarian Affairs (OCHA)

81. OCHA is the part of the United Nations that is responsible for coordinating humanitarian actors to ensure a coherent response to emergencies. OCHA mobilizes and coordinates effective and principled humanitarian action in partnership with national and international actors in emergencies. The aim is to assist people when they most need relief or protection. OCHA fulfils this role by performing five core functions: coordination, information management, advocacy, humanitarian financing and policy development. This includes assessing situations and needs; agreeing on common priorities; developing common strategies to address issues such as negotiating access and mobilizing funding and other resources; clarifying consistent public messaging; and monitoring progress. OCHA also administers the cluster coordination system for the Humanitarian Coordinator, including meetings, data and information management, and reporting.
82. OCHA does not have an express mandate with regard to coordinating the humanitarian response to biological or chemical emergencies. Should, however, such an event lead to, or have the potential of leading to, acute vulnerabilities requiring levels of humanitarian assistance beyond the capacity of the Government to coordinate, and where the Government has requested United Nations

support, OCHA could be engaged. This must be done while adhering to the OCHA mandate in General Assembly resolution 46/182 (1991).

83. OCHA serves as the secretariat for rapid-response tools such as the United Nations Disaster Assessment and Coordination system (UNDAC) that is the primary interagency coordination mechanism to respond to disasters. For more information on the UNDAC mechanism, see chapter II of this report.
84. UNDAC is designed to help the United Nations and Governments of disaster-affected countries during the first phase of a sudden-onset emergency. UNDAC also assists in the coordination of incoming international relief at the national level and/or at the site of the emergency. UNDAC teams can deploy at short notice (12-48 hours) anywhere in the world. They are provided free of charge to the disaster-affected country, and deployed upon the request of the United Nations Resident or Humanitarian Coordinator and/or the affected Government.
85. The UNDAC system comprises four components:
 - Staff: Experienced emergency managers made available for UNDAC missions by their respective governments or organizations. UNDAC members are specially trained and equipped for their task.
 - Methodology: Pre-defined methods for establishing coordination structures, and for organizing and facilitating assessments and information management during the first phase of a sudden-onset disaster or emergency.
 - Procedures: Proven systems to mobilize and deploy an UNDAC team to arrive at the disaster or emergency site within 12-48 hours of the request.
 - Equipment: Personal and mission equipment for UNDAC teams to be self-sufficient in the field when deployed for disasters/emergencies.
86. Assessment, coordination and information management are UNDAC's core mandates in an emergency response mission and UNDAC teams set up and manage the On-Site Operations Coordination Centre (OSOCC). The role of the OSOCC is to help local authorities in a disaster-affected country to coordinate international relief. Following a disaster, the OSOCC is established as soon as possible by the first UNDAC team sent by OCHA. The OSOCC's size and functions vary according to the scale of the disaster.
87. An OSOCC has three primary objectives:
 - To be a link between international responders and the Government of the affected country.
 - To provide a system for coordinating and facilitating the activities of international relief efforts at a disaster site.
 - To provide a platform for cooperation, coordination and information management among international humanitarian agencies.
88. OCHA and the OPCW have established cooperation, and representatives from OCHA and UNDAC have participated in large-scale field exercises (e.g. ASSIS-TEX) run by the OPCW to test the mechanism for the delivery of assistance under the Chemical Weapons Convention following the use of chemical weapons. The primary objective of participation in the exercises has been to establish

and run the OSOCC for coordination with the local emergency authorities and between the different entities engaged in assistance activities. There is no formal agreement or MoU between the OPCW and OCHA in relation to delivery of assistance operations under the CWC.

World Organisation for Animal Health (formerly known as Office International des Epizooties, OIE)

89. The OIE is an intergovernmental organization founded in 1924, and has at present 178 member countries. The OIE is the World Trade Organization's (WTO) reference organization for standards relating to animal health and zoonoses. It publishes 2 *Codes* (Terrestrial and Aquatic) and 2 *Manuals* (Terrestrial and Aquatic) as the principal references for all OIE member countries (including WTO members and non-members). In June 2011 the OIE had a global network of 40 OIE collaborating centres and 225 OIE reference laboratories that provide technical support in prevention, detection, and control of animal diseases to OIE member countries as well as making up a global disease surveillance network. The OIE fully supports the aims and objectives of the BWC and of Security Council resolution 1540 (2004) and manages a number of mechanisms able to contribute to help countries meet their obligations under these instruments. It works closely with international partners including ISU/BWC, UNODA, WHO, FAO and the International Air Transport Association (IATA) on matters relating to biological threat reduction and biosafety.
90. The OIE sets global standards to prevent the spread of terrestrial and aquatic animal diseases. These are laid out in the OIE *Codes* and *Manuals* and include guidance on (1) methods for the rapid and accurate diagnosis of animal diseases; (2) methods for the manufacture of safe, effective and potent vaccines; (3) specific standards on biosafety and biosecurity in veterinary laboratories and animal facilities; (4) methods for the collection, transport and safe keeping of biological materials; (5) guidelines for the licensed importation and certification of dangerous animal pathogens; (6) standards on surveillance for early detection of disease and to demonstrate freedom from disease following an outbreak; (7) disease-specific and general standards to prevent and control the national and international spread of animal disease, including zoonoses. The OIE's Terrestrial Animal Health Code (the Terrestrial Code),¹⁰ details health measures to be used by the veterinary authorities of importing and exporting countries to avoid the transfer of agents pathogenic for animals or humans, while avoiding unjustified sanitary barriers. Related thereto, the Manual of Diagnostic Tests and Vaccines for Terrestrial Animals (Terrestrial Manual, <http://www.oie.int/en/international-standard-setting/terrestrial-manual/access-online/>) supports the work of laboratories carrying out veterinary diagnostic tests and surveillance, plus vaccine manufacturers and regulatory authorities in member countries, by providing internationally agreed diagnostic laboratory methods and requirements for the production and control of vaccines and other biological products.

¹⁰ <http://www.oie.int/en/international-standard-setting/terrestrial-code/access-online/>.

Similar standards are set with regard to sanitary safety and international trade of aquatic animals (amphibians, crustaceans, fish and molluscs) and their products.

91. OIE members have a legal obligation to report immediately (within 24 hours) outbreaks of OIE listed diseases, outbreaks of new and emerging diseases, and significant epidemiological events in domestic and wild animals to OIE through OIE's World Animal Health Information System (WAHIS). They are all connected online via Internet to a unique and secure OIE server. Alerts are then communicated to OIE members and anyone subscribing to the OIE-Info Distribution List by e-mail and RSS feeds. The information is also available through the online World Animal Health Information Database (WAHID) interface which provides public access to all data held in the WAHIS database as soon as they are validated by the OIE. The OIE also lists more than 100 animal diseases and provides detailed information in the form of technical disease cards on their aetiology, epidemiology, diagnosis, prevention and control, and on key references for additional information.
92. The OIE provides guidance on laboratory quality management and assurance in the publication OIE Quality Standard and Guidelines for Veterinary Laboratories. Effective management is essential for maintaining the required laboratory biosafety and biosecurity standards.
93. The OIE provides a mechanism for official recognition of country disease freedom status from 4 major animal diseases—rinderpest, foot and mouth disease, contagious bovine pleuropneumonia, and bovine spongiform encephalopathy. Recognition follows a strict protocol requiring the submission of valid scientific evidence, agreement of all countries by vote and annual reconfirmation of the status. Accounting for expert opinion and the agreement of the OIE World Assembly of Delegates, this list may soon be extended to include other diseases.
94. From the perspective of capacity-building in States members of the OIE that are relevant to the response to bioterrorism threats, the OIE provides help to members to better implement the international standards which they have adopted. These initiatives include a laboratory twinning process, regional capacity-building measures, the PVS evaluation process, the establishment of vaccine banks, the commissioning of global studies, and legislative support.
95. Through its laboratory twinning programme, the OIE is building laboratory capacity in all regions of the world. About 30 OIE laboratory twinning projects have been approved so far. The OIE also manages several disease specific global surveillance networks. Laboratory twinning projects essentially involve creating and supporting scientific expertise in developing countries, as well as a link that facilitates the exchange of knowledge, ideas and experience between two parties. It has been adopted by the OIE as a method for improving laboratory capacity and expertise in developing and in-transition countries. The OIE laboratory twinning programme creates opportunities for developing and in-transition countries to develop scientifically competent laboratory diagnostic methods, to progress towards meeting the international standards of the OIE, and in certain cases to become an OIE reference laboratory.

96. The Performances of Veterinary Services (PVS) Pathway corresponds to a global programme for the sustainable development of a country's veterinary services. This global programme encompasses a PVS evaluation (qualitative *diagnosis* on compliance with quality standards, providing baseline information), a PVS gap analysis including veterinary services strategic priorities, and specific capacity-building activities, projects and programmes. The possible topics for action comprise veterinary legislation, public/private partnerships, veterinary education, the capability to report disease events to the international community through WAHIS, laboratories (mainly in the form of OIE twinning projects), followed by regular PVS Pathway follow-up missions to monitor progress made. The PVS evaluates countries' abilities to comply with OIE standards, based on an assessment of specific critical competencies including human, physical and financial resources; technical authority and capability; interaction with stakeholders; and access to markets. The outputs of PVS are designed to facilitate improvements in veterinary services worldwide, the main objective being the early detection and rapid response to natural or intentional animal disease outbreaks.
97. Regional capacity-building programmes for OIE members' veterinary services are established annually. Such programmes aim to strengthen animal disease surveillance and control, early outbreak detection and rapid response at both a regional and national level. This also facilitates networking between country delegates to the OIE and OIE national focal points. OIE regional representations and subregional representations organize an average of between two and four regional seminars per region and per year. The following key issues are addressed through these regional seminars: the rights and obligations of the national delegates to the OIE, the structure and quality of national veterinary services, the implementation of animal health standards; sanitary information systems; animal production food safety; veterinary medicinal and biological products; aquatic animal diseases; animal welfare; wildlife, veterinary service communication and laboratories.
98. In 2006, the OIE set up a Regional Vaccine Bank for avian influenza vaccines in Africa funded under the EU Pan African Programme for the Control of Epizootics (PACE). In 2007, this was broadened to a global vaccine bank for avian influenza vaccines thanks to the financial support received from Canada (CIDA). The EU-funded Regional Cooperation Programme on Highly Pathogenic Emerging and Re-emerging Animal Diseases (HPED) in Asia will see the expansion—in Asia—of this vaccine bank to diseases other than avian influenza, such as: foot and mouth disease, rabies and possibly other pathogenic emerging and re-emerging transboundary diseases.
99. In many developing and in-transition countries, veterinary legislation is inadequate to address the challenges of today and of the future. In order to support OIE members, the OIE has developed guidelines on all the essential elements to be covered in veterinary legislation. Any OIE member which has participated in an OIE PVS Evaluation may request a follow-up mission which focuses on providing advice and assistance to modernize the national veterinary legislation. The OIE Guidelines on Veterinary Legislation will be used to update national legislation where gaps are identified during the course of an OIE PVS evaluation mission.

100. OIE is a partner in the FAO-OIE Crisis Management Centre and draws upon its network of expertise to provide support to international disease crises.

Organisation for the Prohibition of Chemical Weapons (OPCW)

101. The OPCW is the implementing body of the Chemical Weapons Convention (CWC). The CWC does not specifically deal with the fight against terrorism and its provisions do not refer to terrorism. It is, however, fully recognized that the full implementation of the provisions of the CWC, including the legislative framework to be put in place, constitutes an important element in preventing chemical terrorism. The OPCW has also taken initiatives that are directed specifically at preventing terrorism such as activities aimed at promoting chemical plant and transport security and addressing the issue of preventing chemical terrorism during seminars and workshops. Furthermore, the OPCW's mechanism to assist States Parties in situations when chemical weapons have been used against them can be invoked after terrorist attacks with chemical weapons. The OPCW has also organized an international table top exercise on the prevention of, preparedness for and response to chemical terrorism and plans to continue organizing this type of exercise.
102. OPCW has an established programme of legal technical assistance. Examples of comprehensive legislation, models and explanatory documentation are available on the OPCW website. States Parties wishing to receive advice on legislation under preparation frequently submit their drafts for comment. Resources permitting, technical assistance visits can be made to OPCW headquarters by legislative drafters seeking advice. Additionally, legal experts from States Parties and/or the Technical Secretariat routinely assist States Parties on site upon request. The assistance delivered will be tailored to fit the State Party's needs and request.
103. OPCW has an active programme to enhance States Parties' protection against CW including the capability to deal with a terrorist attack using chemical weapons. This includes a databank on protection available on the OPCW external server, bilateral technical assessment visits and training courses at the national, regional and international levels. The OPCW is also taking initiatives for the establishment of regional and subregional Centres of Excellence (CoE) to support the effective implementation of the CWC and capacity-building of States Parties for protection against CW. These centres will, where possible, cooperate with and benefit from initiatives taken by other international organizations such as the CBRN CoEs initiated by UNICRI.
104. The bilateral technical assessment visits are made upon request by the Member State. These visits are normally the first step of tailored capacity-building programmes. The participants are national stakeholders involved in chemical emergency response and the purposes of the visit are also to discuss emergency response components and preparedness by creating a forum with all the national stakeholders.
105. The training courses aims are developing national, regional and international protection capabilities and measures and to improve response systems to mitigate

chemical incidents. The courses train national/regional experts through a “Train the Trainers” approach. Topics include familiarization with and training on detection and decontamination equipment, individual protective equipment and other protective equipment. It also aims at facilitating cooperation at the national, regional and international levels.

106. The bulk of the assistance that can be provided by the OPCW to victims of chemical attacks comes from the treaty obligation that each State Party undertakes to provide assistance through the OPCW to a requesting State Party. The three options for the provision of assistance are:
 - To make a financial contribution to the voluntary fund for assistance;
 - To conclude agreements concerning the procurement of assistance;
 - To declare the kind of assistance it might provide in response to an appeal by the organization.
107. The voluntary fund can be used for procuring logistics for delivery of assistance. The offers of assistance from States Parties include experts, instructors or staff (analysis and assessment; chemical survey; disaster management; detection and chemical reconnaissance; decontamination; disposal of explosives; NBC protection; medical doctors and experts; medical treatment for exposure to chemical warfare agents; medical treatment of mass casualties; search and rescue in contaminated areas; sampling and analysis; urban search and rescue; water purification), equipment (individual protective equipment (IPE); collective protection; decontamination; detection; and sampling and analysis; medical) and transport.
108. Strictly adhering to the provision of Article X of the CWC, the request for assistance under paragraph 8 in the case of a terrorist attack using chemical weapons can only take place after such an attack. The OPCW has, however, other means to support countries that are threatened by terrorist attacks with chemical weapons. These include training and technical assistance visits to strengthen the capabilities of a State Party to deal with a terrorist attack using chemical weapons.
109. To be able to respond to a request, the Secretariat has established the Assistance Response System (ARS). Central to the ARS is the Assistance Coordination Group (ACG) chaired by the Director-General and with participation from all concerned units of the Secretariat.
110. Following a request for assistance, the Director-General shall within 24 hours initiate an investigation of the alleged use of chemical weapons. The investigation shall be completed within 72 hours of arrival at the site but the investigation can be extended for additional 72 hours periods if required. Following such an extension, an interim report shall be submitted after expiry of each 72 hours period. The team shall also submit an initial 24 hours interim report detailing e.g., assistance needs.
111. The OPCW can deploy an investigation team with protective equipment and decontamination capability that allows it to operate in a contaminated environment. It can also deploy a mobile analytical laboratory with the capability for sampling and analysis on site. The team will also have medical staff to support the team and, as applicable, conduct interviews and biomedical sampling

of victims. The size and the composition of the team will depend on the circumstances but can be up to 30-35 persons.

112. If required, samples can be transported off-site to be analysed by OPCW designated laboratories. These are laboratories in States Parties that have qualified as designated laboratories by successfully participating in the mandatory scheme of OPCW proficiency tests. Failure in a proficiency test leads to suspension of the laboratory and it must re-qualify. The OPCW currently has 22 designated laboratories in 17 States Parties with 4 of them suspended.
113. As required, the OPCW investigation team can be augmented with “Qualified Experts” nominated by States Parties that have expertise in areas not available within the Secretariat. This includes a range of fields of expertise including: toxicologists; explosive ordnance demolition (EOD); and disaster management. Currently 14 trained Qualified Experts are on the roster for deployment should their inclusion in an OPCW investigation team be required.
114. As part the investigation team, the OPCW would deploy an Assistance Coordination and Assessment Team (ACAT) made up of OPCW staff with the possible addition of external experts in the field of emergency management. Currently there are 4 such experts trained and available for deployment. The size of the ACAT would be around 5 persons.
115. The ACAT will liaise with and support the Local Emergency Management Authorities (LEMA) in the coordination and management of assistance activities. It will also liaise (through OSOCC) with international assistance teams, UN agencies, other international organizations and NGOs already operating in the country. The ACAT also will perform assessments of the CW related assistance needs for the decision by the OPCW on delivery of assistance.
116. If an OSOCC is established by the UNDAC team, the ACAT would be part of that coordination centre. This is the concept that has been tested in assistance delivery exercises. If the UNDAC team has not arrived in the country, the ACAT can establish the OSOCC and create the coordination structure.
117. The OPCW’s Executive Council will review the results of an ongoing investigation of alleged CW use and can take decisions on the delivery of assistance based on the report(s) from the investigation team. The investigation report and the decision taken by the Executive Council shall immediately be transmitted to all States Parties and relevant international organizations. Should information from the ongoing investigation, or other reliable resources, indicate that there are victims of chemical weapons, the Director-General can immediately initiate the delivery of emergency assistance without having to wait for a decision by the Executive Council.
118. The OPCW will coordinate with the States Parties contributing different kinds of assistance on the type of assistance required, the logistics and on the ground through the ACAT.
119. The delivery of assistance operations has been tested in a number of exercises. This includes Bogorodsk exercise (2002, Russian Federation), TRIPLEX 2002 (Denmark), 2004 (Norway), 2006 (Finland), 2008 (Norway and Sweden),

ASSISTEX 1 (2002, Croatia), Joint Assistance (2005, Ukraine) and ASSISTEX 3 (10/2010 Tunisia). In a number of these exercises the scenario has been a terrorist attack using chemical weapons.

120. The CWC provides that the OPCW: “In the case of alleged use of chemical weapons involving a State not Party to this Convention or in territory not controlled by a State Party, the Organization shall closely cooperate with the Secretary-General of the United Nations. If so requested, the organization shall put its resources at the disposal of the Secretary-General of the United Nations”.
121. This provision is referenced in the 2001 relationship agreement between the OPCW and the UN but no further agreement is in place on the modalities and procedures to be applied for such a case.

United Nations Department of Safety & Security (UNDSS)

122. UNDSS is responsible for providing leadership, operational support and oversight of the security management system, ensure the overall safety and security of United Nations personnel (staff and eligible family members), premises and assets at both field and Headquarters locations as well as enable the safest and most efficient conduct of the programmes and activities of the United Nations system.
123. As defined in the Framework of Accountability for the United Nations Security Management System (UNSMS):
 - “The primary responsibility for the security and protection of personnel employed by the United Nations system organizations, their spouses and other recognized dependants and property and of the organizations’ property rests with the Host Government. This responsibility flows from every government’s normal and inherent function of maintaining order and protecting persons and property within its jurisdiction. In the case of international organizations and their officials, the government is considered to have a special responsibility under the Charter of the United Nations or the government’s agreements with the individual organizations.
 - Without prejudice to the above and while not abrogating the responsibility of the host government for its obligations, the United Nations has a duty as an employer to reinforce and, where necessary, supplement the capacity of the host government to fulfil these obligations in circumstances where United Nations personnel are working in areas which are subject to conditions of insecurity which require mitigation measures beyond those which the host government can reasonably be expected to provide; this Framework for Accountability specifies the responsibilities and accountabilities of United Nations officials and personnel for such measures.
 - In this regard, the UNSMS, in seeking to establish and maintain operations in insecure and unstable environments, adopts the principle of “how to stay” as opposed to “when to leave” as a tenet of its security management approach.

124. In each country or designated area where the United Nations is present, the senior-most United Nations official is normally appointed in writing by the Secretary-General as the Designated Official for Security, and accredited to the host government as such. The Designated Official (DO) is accountable to the Secretary-General, through the Under-Secretary-General for Safety and Security, and is responsible for the security of UN personnel, premises and assets throughout the country or designated area. The Chief Security Adviser/Security Adviser (CSA/SA) is a security professional appointed by the Under-Secretary-General for Safety and Security to advise the DO and the SMT in their security functions. The CSA/SA reports to the DO and maintains a technical line of communication with the Department of Safety and Security.
125. Relevant for the response to chemical and biological terrorism is the policy with regard to operations in a nuclear, biological or chemical (NBC) environment as defined in the Field Security Handbook—Annex T:
- T.1.1 “The primary responsibility for the security and protection of the organizations of the United Nations system, staff members, their spouses, dependants and property and of the organizations’ property in a NBC warfare environment or in NBC contaminated areas rests with the host government”.*
- T.1.2 “With the exception of entities which are mandated to operate in an NBC environment or in NBC contaminated areas, including related organizations of the United Nations system, such as the IAEA, the OPCW, and the United Nation subsidiary organs such as the UNMOVIC, the organization of the United Nations system, their organs, programmes and funds will not undertake or continue operations in a NBC warfare environment or in NBC contaminated areas”.*
126. All travel to contaminated areas will be restricted and authorized through the UNDSS security clearance system TRIP. Only entities as defined in T.1.2 will be cleared to operate in the contaminated areas. Investigations by WHO and the investigation team deployed under the Secretary-General’s Mechanism for the investigation of alleged use of chemical, biological and toxin weapons (SGM) would also fall under the provisions of T.1.2. A staff ceiling may be implemented as needed for all operations in contaminated areas depending on the security situation (armed conflict, civil unrest, etc.) and available relocation/evacuation means.

United Nations Interregional Crime and Justice Research Institute (UNICRI)

127. UNICRI has been active in the fields of crime prevention and criminal justice for over four decades. Through its Security Governance/Counter-Terrorism Laboratory, UNICRI conducts action-oriented research, develops innovative solutions for complex problems and builds strong partnerships between relevant stakeholders. Although the Institute does not directly participate in response operations, its capacity-building programmes and its ability to “broker” between stakeholders involved in response allow it to contribute substantively to the preparedness and planning stages of response. As such, UNICRI provides expertise and training to promote national policy ownership and the development of

institutional capabilities to assist in the creation and implementation of sound strategies and concrete intervention programmes.

128. In the context of prevention and preparedness with regard to illicit uses of chemical, biological, radiological and nuclear material (CBRN), UNICRI implements a number of relevant programmes:
 - Knowledge Management Systems (KMS), jointly implemented with EC JRC on illicit CBRN trafficking;
 - CBRN Centres of Excellence (CoE), jointly implemented with EC JRC;
 - A risk and response assessment project on “Synthetic biology and nanobiotechnology”.
129. To address concerns about accessibility to terrorists and criminal organizations of CBRN materials, UNICRI, in cooperation with the European Commission, and with the technical support of, among others, the IAEA, the OPCW, the ISU/BWC, Europol, INTERPOL, and the World Customs Organisation (WCO), has created in 2008 a Knowledge Management System (KMS) on the prevention of illicit trafficking of CBRN material. The KMS is designed to assist states in establishing clear channels of communication, improving information sharing on CBRN incidents, and accessing information that helps strengthen capabilities in terms of effective border control, law enforcement operations, and national export controls and trans-shipment controls.
130. The first KMS was developed in South-East Europe and the Caucasus and concluded in late 2010. This successful experience contributed to the set up of a KMS in North Africa which started in March 2009. Overall, 16 countries and several international/regional organizations have been involved in the KMS.
131. As a subsequent step in the efforts to mitigate the threat of illicit trafficking and criminal use of CBRN material and weapons, UNICRI is assisting the European Commission (DG Development and Co-operation (DEVCO)) and the European External Action Service in implementing Centres of Excellence on CBRN Risk Mitigation. The main aim of the initiative is to facilitate regional cooperation to enhance CBRN policies and capabilities. This goal will be achieved by creating a network of regional initiatives that will:
 - Promote and support the development of national CBRN policy;
 - Optimize the sharing and use of CBRN capabilities;
 - Develop guidelines, collect and share best practices;
 - Establish a cooperation process among network members to identify issues and possible solutions from information available to the network;
 - Identify, collect, analyse and deploy resources to respond to the needs identified by partner countries.
132. Work has begun with regard to setting up CoEs in a number of regions, including South-East Asia, North and West Africa, the Middle East, South-East Europe, the Caucasus and Central Asia.
133. The CoEs are composed of:

- CBRN national teams, composed of the national focal point appointed by the respective partner country as well as representatives of relevant national agencies/institutions, are the key players of the initiative, assessing countries' needs and promoting the coordination of CBRN policy among the relevant institutions at the national level such as ministries and national authorities dealing with CBRN;
 - Regional centres (RC) to facilitate technical support to help CBRN National teams achieve their objectives. The RCs will be composed of a secretariat working in cooperation with national focal points and thematic task forces of national experts;
 - The implementing body (IB), composed of UNICRI and the Joint Research Centre (JRC) of the European Commission, in charge of facilitating the implementation of CoE activities at the local and regional levels and responsible for involving international and regional organizations, EU member states and other stakeholders, and the coordination committee (see below);
 - The coordination committee, consisting of the European External Action Service, DG DEVCO, UNICRI and the JRC, and responsible for overall supervision and the allocation of resources to address countries' needs.
134. The CoE initiative involves development of CBRN guidelines aimed to improve national CBRN policy in participating countries and regions. Considering the focus on long-term sustainability of the initiative, CoE ensures that partner countries from the very outset act as owners of the initiative by carrying out the assessment of their needs and identifying projects that may be provided through the CoE framework. The regional centres established under the project will analyse the country needs and elaborate specific proposals to address those needs. The regional centres also identify resources at the regional and international levels to implement capacity-building projects, with the support of UNICRI and JRC.
135. The project on Security Implications of Synthetic Biology and Nanobiotechnology was conceived in response to the Global Counter-Terrorism Strategy (A/ES/60/288). It focused on present and future (bio-)security implications of advances in synthetic biology and nanobiotechnology and examined the vast dual use potential of these technology fields with a focus on their ability to enable the development of new or enhanced biological agents and weapons for criminal or terrorist purposes. The main objective of the project was to conduct a risk assessment of malevolent applications of synthetic- and nanobiotechnology, with a broad involvement of bioscience and security experts. This project phase also proposed possible response and mitigation measures and aimed at promoting, facilitating and improving the exchange of information and knowledge between relevant stakeholders. The project helped to “scan the horizon” and aimed at identifying risk factors and risk mitigation strategies with regard to developments in the life sciences that may place dangerous capabilities at the disposal of groups or individuals that want to cause harm to society.

United Nations Office for Disarmament Affairs (UNODA)

136. In the areas of weapons of mass destruction, UNODA promotes nuclear disarmament and non-proliferation and the strengthening and consolidation of multilaterally negotiated principles and norms in respect to all weapons of mass destruction, nuclear, chemical and biological weapons. UNODA provides substantive and organizational support for norm-setting in the area of disarmament and non-proliferation of WMD, in particular nuclear weapons. UNODA actively cooperates with the relevant intergovernmental organizations and specialized agencies of the United Nations system, in particular the IAEA, the OPCW and the Comprehensive Test Ban Treaty Organization (CTBTO) Preparatory Commission.
137. UNODA provides support to the 1540 Committee. UNODA contributes to the Committee's activities in the area of outreach, assistance and cooperation. With the objective of promoting the full implementation of resolution 1540 (2004), UNODA organizes regional and subregional seminars and workshops using voluntary contributions by Member States and the European Union. These seminars and workshops focus on raising awareness of the requirements of the resolution, capacity-building, enhancing cooperation among participating States and sharing experiences and lessons learned.
138. The Secretary-General's mandate for investigation of alleged use of chemical, biological or toxin (CBT) weapons was established by the United Nations General Assembly. In a number of resolutions, the General Assembly requested the Secretary-General "carry out promptly investigations in response to reports that may be brought to his attention by any Member State concerning the possible use of chemical and bacteriological (biological) or toxin weapons that may constitute a violation of the 1925 Geneva Protocol or other relevant rules of customary international law in order to ascertain the facts of the matter, and to report promptly the results of any such investigation to all Member States". In resolution 620 (1988), the Security Council also "encourages the Secretary-General to carry out promptly investigations in response to allegations brought to his attention by any Member State concerning the possible use of chemical and bacteriological (biological) or toxin weapons that may constitute a violation of the 1925 Geneva Protocol or other relevant rules of customary international law, in order to ascertain the facts of the matter, and to report the results".
139. Several investigations of alleged use were carried out during the 1980s based on the Secretary-General's investigative authority; the last such investigation was conducted in 1992.
140. The current Technical Guidelines and Procedures (TGP) for the timely and efficient investigation of reports of the possible use of chemical, biological or toxin weapons were endorsed by the General Assembly in 1990 (A/44/561, Annex I). The 1990 TGP stipulates that "all Member States, if requested by the Secretary-General, should grant rapid access to the team of qualified experts sent on his behalf to the site of the alleged violation of the 1925 Geneva Protocol and other relevant rules of customary international law. Member States should be called

upon not to refuse a request of the Secretary-General to conduct such an investigation”. Any investigation at the site of an alleged violation should be carried out rapidly and in the least intrusive manner possible. Conclusions of the fact-finding team should indicate the extent to which the alleged events had been substantiated. The team should also include in its report any information it collects concerning the possible origin of the CBT weapons use. The team should provide to the Secretary-General specific information so that he may facilitate, as appropriate, provision of aid to the affected state or states by the international community.

141. The 1990 TGP envisages that “all Member States and relevant international organizations should provide assistance to the Secretary-General, at his request, necessary to facilitate preparation for and conduct of any investigations”.
142. Any Member State may designate qualified experts or laboratories whose names, qualifications and capabilities should be placed on the list maintained and periodically updated by the Secretary-General (the roster). In case a decision to conduct an investigation is taken, the Secretary-General would select a core team of qualified experts to carry out the investigation and notify laboratories whose services may be required to perform analysis of samples obtained in the course of the investigation.
143. The Secretary-General’s investigative mandate does not imply the creation of a permanent body; instead the mechanism is designed in such a way that the required expertise and capabilities are regularly updated and readily available in the roster. The skills, knowledge, equipment and other resources in the roster are made available to the Secretary-General by Member States, United Nations system organizations and other international organizations.
144. Following the entry into force of the CWC in 1997, the Agreement Concerning the Relationship Between the United Nations and the OPCW was concluded in 2001. The Agreement refers to the CWC provision that the OPCW shall cooperate closely with the Secretary-General in cases of alleged use of chemical weapons involving a State not party to the CWC or in a territory not controlled by a State Party, and if requested, shall in such cases place its resources at the disposal of the Secretary-General.
145. The Sixth Review Conference of the BWC in 2006 noted that “the Secretary-General’s investigation mechanism, set out in A/44/561 and endorsed by the General Assembly in its resolution 45/57, represents an international institutional mechanism for investigating cases of alleged use of biological or toxin weapons”. The Conference invited the Security Council to consider immediately any complaint lodged under Article VI of the Convention and to initiate any measures it considers necessary for the investigation of the complaint in accordance with the Charter. The Conference also invited the Council to request, if it deems necessary and in accordance with its resolution 620 (1988), the United Nations Secretary-General to investigate the allegation of use, using the technical guidelines and procedures contained in Annex I of United Nations document A/44/561.
146. By its resolution 60/288 of 8 September 2006, the General Assembly adopted the UN Global Counter-Terrorism Strategy which encourages the

Secretary-General to update the roster of experts and laboratories as well as the technical guidelines and procedures available to him for the timely and efficient investigation of alleged use. The 2006 BWC Review Conference noted General Assembly resolution 60/288.

147. UNODA is facilitating the administrative and substantive support and coordination for the smooth functioning of the Secretary-General's investigative mechanism including the conduct of on-site investigations and, as requested by resolution 60/288, update of the roster and technical guidelines and procedures.
148. In 2007, UNODA convened meetings of international experts from Member States and international organizations which resulted in an update of the appendices of the technical guidelines and procedures contained in document A/44/561.
149. Since 2007, UNODA has continuously conducted the update of the roster of experts and laboratories, in particular the biological area. Member States were requested to provide new and additional nominations, especially in the areas of sampling, epidemiology, munitions and explosive devices to enhance expertise available in the roster and to provide up-to-date and detailed information on expertise and capabilities of nominated experts and laboratories. These efforts have resulted in a significantly expanded roster of experts and laboratories the services of which are made available by Member States to the Secretary-General for investigations of alleged use. As of January 2010, the roster comprised 237 biological and chemical experts and 42 laboratories, nominated by 41 Member States. In addition, 4 Member States have nominated national focal points for facilitating the participation of their experts and laboratories in investigations of alleged use upon requests from the Secretary-General. With experts and laboratories already nominated by Member States, extensive knowledge and capabilities in the areas of epidemiology and forensic science, munitions and delivery systems, emergency response, sample taking and analysis are available for investigations.
150. In accordance with the 1990 TGP which stipulate that any interested Member State may designate to the Secretary-General relevant training or courses available to qualified experts in support of their possible role in carrying out investigations of possible use, the Government of Sweden offered a training course for experts from the roster. The first ever training course for the experts was held from 25 May to 5 June 2009 in Umeå, Sweden. It was organized by the European Chemical, Biological, Radiological, Nuclear and Explosive Centre with the support and cooperation of UNODA. Experts from 14 Member States completed the course.
151. The course focused on investigations of alleged use of biological weapons and relevant activities of fact-finding teams to be sent to sites of alleged use. This training course established a core team of experts trained to operate as a UN fact-finding team in conducting an investigation of alleged use of biological weapons, in cases where the Secretary-General decides to launch such an investigation.
152. The TGP contains specific provision on the participation of international organizations. The Secretary-General should make necessary arrangements with relevant international organizations to obtain from them *inter alia* information on

the status of health and sanitation of the population of the area of investigation and appropriate assistance and cooperation of their representatives in the Member States where the team is to conduct an investigation of alleged use. The UN Office for Disarmament Affairs established a network of international organisations which can assist and support the Secretary-General's investigations of alleged use. Collaborative relations are also maintained with FAO, INTERPOL, OIE, OPCW and WHO. In 2011, UNODA and WHO concluded a Memorandum of Understanding (MoU) concerning WHO's support to the Secretary-General's mechanism for investigation of the alleged use of chemical, biological or toxin weapons. The MoU covers such areas as technical support in assessing the public health, clinical, and event-specific health aspects of an alleged use, harmonization of relevant operational procedures, educational/training activities and field operations including sharing of information and resources. With regard to investigations concerning chemical or biological weapons use against animals, although UNODA has not yet signed an MoU with OIE, both organizations have an established collaboration.

The 1540 Committee and its experts

153. The Committee established pursuant to UN Security Council resolution 1540 (2004) and its experts serve as an instrument of the Council with an explicit mandate to help prevent proliferation of nuclear, chemical and biological weapons and their means of delivery and to deter non-State actors from manufacturing, acquiring, possessing, developing, transporting, transferring or using such weapons, in particular for terrorist purposes. As a binding non-proliferation instrument under Chapter VII of the UN Charter, the resolution requires States to adopt and enforce appropriate effective laws which prohibit non-State actors to engage in such proliferation activities and also adopt effective measures of domestic controls including for accounting, securing, physically protecting WMD-related materials and establishing appropriate border and export controls to detect, deter, prevent and combat the illicit trafficking and brokering in nuclear, chemical or biological weapons, their means of delivery and related materials.
154. The 1540 Committee experts work in cooperation with relevant international, regional and subregional organizations and, as a member of CTITF, and are engaged in the work of its Working Groups on WMD and Border Management, and the Initiative on Integrated Assistance for Counter-Terrorism (I-ACT). It also continues to strengthen its cooperation with the Counter-Terrorism Committee Executive Directorate and the 1267 Monitoring Team in their efforts to fulfil their respective mandates.

United Nations Office on Drugs and Crime (UNODC)

155. The Terrorism Prevention Branch (TPB) of UNODC is mandated by the General Assembly to provide assistance to States, on their request, in the legal and

related aspects of counter-terrorism, especially for ratifying and implementing the international legal instruments against terrorism and for strengthening the capacity of the national criminal justice systems to apply the provisions of these instruments in compliance with the principles of the rule of law and international human rights standards.

156. The counter-terrorism technical assistance delivered by UNODC also helps countries comply with the requirements of Security Council resolutions 1267 (1999), 1373 (2001) and 1540 (2004) and related ones. In addition, the Branch's programme of work entails the provision of substantive input on counter-terrorism issues to intergovernmental bodies, especially the Crime Commission, the Economic and Social Council, the General Assembly and the United Nations Congress on Crime Prevention and Criminal Justice. The Branch also provides specialized input on relevant counter-terrorism issues for the United Nations Secretariat-wide initiatives and further coordinates its activities with other entities and organizations.
157. The Global Project was established in 2003 to assist States in strengthening their counter-terrorism legal framework in accordance with the international legal instruments against terrorism, relevant Security Council resolutions, the rule of law and human rights standards. The three main components of the programme are:
 - Sustained, tailor-made assistance on the ground, reaching out to domestic criminal justice practitioners involved in the investigation, prosecution and adjudication of terrorist cases;
 - Assistance for strengthening international, regional and subregional cooperation related to terrorist cases; and
 - Expertise building for government officers in specialized thematic areas such as the use of internet for terrorist purposes, victims of terrorism, the financing of terrorism and chemical, biological, radiological and nuclear terrorism.
158. UNODC provides a range of technical tools and publications available from its website. These include:
 - Counter-terrorism Legislation Database: a comprehensive and accurate database of international, regional and national counter-terrorism legislation further supported by model laws, legislative guides and other legal tools.
 - UNODC Counter-terrorism Learning Platform: the platform is an interactive tool specifically designed for the training of criminal justice officials in the fight against terrorism, while incorporating them into a single virtual community where they can share their experiences and perspectives to fight terrorism.
 - Publications covering a wide range of subjects such as practical guides, handbooks and manuals, counter-terrorism legal training curriculum modules, model laws, studies, compendia of legal instruments and conference publications.
159. The training and outreach activities by TPB are arranged through online interactive training, national, subregional and regional seminars and workshops. Technical assistance activities are undertaken in close partnership and cooperation with numerous international, regional and subregional organizations. The

approach is to work with these organizations and, where relevant, support and complement their efforts, especially by providing specialized legal expertise and the advantages of relevant global perspectives and experiences. For instance, since late 2008, seven six-weeks online training courses on global norms and international criminal cooperation against terrorism were delivered, some jointly with INTERPOL, training some 204 individuals from 79 countries worldwide.

160. Up until April 2011, Member States with which TPB has conducted technical cooperation activities since 2002 have undertaken an estimated 561 ratifications of the international anti-terrorism instruments. Between January 2003, when the Global Project started, and April 2011, the number of countries having ratified all of the first 12 international instruments rose from 26 to 111. Furthermore the number of states having ratified only 6 or fewer of the first 12 instruments by April 2011 dropped to 20 from 98 countries in January 2003.
161. Some 79 TPB-assisted countries have new or revised counter-terrorism legislation in different stages of adoption. A total of 168 countries have been assisted through national or regional activities, and the capacity of more than 11,500 criminal justice officials to implement the legal regime against terrorism has been strengthened.
162. UNODC/TPB has provided legislative assistance to Member States upon request in combating chemical, biological, radiological and nuclear (CBRN) terrorism. UNODC/TPB has conducted numerous workshops on CBRN terrorism. Cooperation has now been strengthened with OPCW in order to run joint activities such as workshops and provision of legislative assistance as appropriate.

World Health Organization (WHO)

163. A key agency in the area of mitigating health risks is WHO. Its strength comes from the legal framework established (the International Health Regulations), its decentralized nature with 6 regional and 142 country offices, the collective experience of the agency and the countries in managing public health events, and the networks and partnerships that it has developed and relies on (e.g., Global Outbreak Alert and Response Network (GOARN), regional and subregional networks, specialist networks, WHO collaborating centres, the Global Influenza Surveillance Network (GISN) and others). WHO takes a “whole-society approach”.
164. The bases for WHO’s mandates do not differ from those related to natural or accidental public health risks and are governed by the 2005 International Health Regulations (IHR (2005)). The IHR (2005) are binding on 194 countries across the globe, including all Member States of WHO. Their aim is to help the international community prevent and respond to acute public health risks that have the potential to cross borders and threaten people worldwide. The IHR (2005) requires countries to report certain disease outbreaks and public health events to WHO. Building on the unique experience of WHO in global disease surveillance, alert and response, the IHR defines the rights and obligations of countries to report public health events, and establish a number of procedures that WHO must follow in its work to uphold global public health security.

165. The IHR (2005) require countries to strengthen their existing capacities for public health surveillance and response. WHO is working closely with countries and partners to provide technical guidance and support to mobilize the resources needed to implement the new rules in an effective and timely manner. Key requirements at the national level include (see http://www.who.int/ihr/three_priorities.pdf):
- The establishment of a functioning National IHR Focal Point (NFP), to be accessible at all times (7/24/365) for IHR-related communications and collaborative risk assessment with WHO IHR Contact Points. Mandatory functions of the NFPs include: (1) sending to WHO IHR Contact Points urgent communications concerning IHR (2005) implementation; and (2) disseminating information to, and consolidating input from, relevant sectors of the administration within the country, including those responsible for surveillance and reporting, points on entry, public health services, clinics and hospitals. While the vast majority of NFP communications will relate to communicable disease outbreaks, it is important to note that the broad scope of the IHR (2005) may require the NFP to carry out activities in respect of events arising from non-communicable [or unknown] etiologies, such as chemical or radiological;
 - Adherence to reporting requirements and verification of public health events: notification is based upon the identification and assessment by the State Party of events within its territory which may constitute a public health emergency of international concern (PHEIC). Each State Party is required to assess public health events according to the multi-factor decision instrument provided in Annex 2 of the IHR (2005). States Parties must notify WHO of any event that meets at least 2 of the 4 decision criteria within 24 hours after having carried out the assessment. Notifications must always include or be followed by detailed public health information on the event, including where possible case definitions, laboratory results, source and type of the risk, number of cases and deaths, conditions affecting the spread of the disease and the health measures employed. Other reporting components provided for under the IHR (2005) include: (1) consultation requirements for events not (yet) requiring formal notification to WHO, particularly when information is insufficient to complete the decision instrument at the time of initial assessment; (2) a requirement to inform WHO within 24 hours of receipt of evidence of a public health risk identified outside the territory of a State Party that may cause international disease spread, as manifested by imported or exported human cases, infected or contaminated vectors or contaminated goods; and (3) WHO has an express mandate to obtain verification from States Parties concerning unofficial reports or communications (e.g., the media) about events arising within their territories which may constitute a PHEIC; these reports are initially reviewed by WHO prior to the determination whether to seek verification. States Parties must acknowledge verification requests by WHO within 24 hours and provide public health information on the status of the event.
 - Assessment and requirement to strengthen national capacities: The IHR (2005) require each State Party to develop, strengthen and maintain core

national public health capacities at the primary, intermediate and national levels in order to detect, assess, notify and report events and to respond promptly and effectively to public health risks and emergencies. Specific capacities are required for the implementation of health measures at international ports, airports and certain ground crossings designated by States Parties for this purpose. States Parties must also make legal and administrative adjustments to facilitate compliance with the IHR (2005). The areas to be covered under this point include surveillance and response capacities, routine and emergency public health capacities at designated points of entry, as well as legislative and administrative capacities.

166. The IHR (2005) defines a risk management process where Member States work together and through WHO to manage acute public health threats collectively. WHO has a commitment (WHA 54.14 and WHA 55.16) to build capacity towards CBRN preparedness in Member States. WHO's approach is through public health system improvement and implementation of the capacity strengthening component of the IHR (2005).
167. In addition, WHO provides technical support to the United Nations in strengthening the UN Secretary-General's Mechanism (SGM) for investigating the alleged use of chemical or biological weapons. In implementation the 2011 Memorandum of Understanding (MoU) concerning WHO's support to the SGM, WHO and UNODA are now working towards (1) the harmonization of relevant operational procedures; (2) educational and training activities (including identification of skills and expertise in relevant rosters); and (3) assistance in conducting field operations including with regard to equipment, information, and seconding technical experts.
168. In the case of a deliberate release of a biological agent, WHO's role will be to manage the public health consequences and communicate real-time public health risk assessments and recommendations to countries. WHO has developed and tested standard operating procedures (SOPs) for response to an alleged use of a biological agent, including specific indicators of non-natural sources of infection. In such incidents, WHO can quickly deploy a team of experts to the country concerned. It has a system in place to transport, if necessary, infected patients, as well as to move samples that may be required for forensic analysis. Animals can act as biosensors for certain diseases of public health concern and notification of a zoonotic pathogen in animals to the OIE—leading to mobilization of OIE national networks—may precede human disease. When a zoonotic pathogen of significant public health concern is detected in animals, WHO may work closely with its partner organizations OIE and FAO.
169. WHO also provides support to countries with regard to strengthening their preparedness with regard to CBRN threats. It has prepared a CBRN self-assessment tool to help countries assess their national capacities to manage the health risks of the deliberate release of chemical, biological and radiological agents. This is a modular package that is designed for public health authorities and other stakeholders. It informs ministries of health and other stakeholders on the strengths and weaknesses of their health system's capacity to manage CBRN incidents,

and helps them develop relationships and interoperability between different organizations, departments and personnel.

170. Other activities implemented by WHO to provide scientific and technical cooperation at the public health–security interface include :
- Strengthening global biosafety and laboratory biosecurity by supporting the implementation of wide-ranging biorisk management strategies, addressing the public and veterinary health sectors in collaboration with OIE and FAO;
 - Scientific collaborations with military medical centres and networks for improved management of severe infectious diseases;
 - Contribution to the programme of essential scientific research on smallpox, and management of the smallpox vaccines stockpile;
 - Strengthening access to and compliance with international regulations for the transport of infectious substances;
 - Project on ethics and responsible uses of life sciences research.
171. WHO's primary role in response to an accidental or intentional release of a biological agent will be to manage the public health consequences and communicate real-time public health risk assessments and recommendations. To this end, WHO has set up an internal global Event Management System for public health event-based information management. This secure system is a decision support system that is driven by risk assessment, taking an all-hazards approach.

United Nations Development Programme (UNDP)

172. UNDP delivers human development across the world. In some contexts and situations the impact of development means that choices available to poor and otherwise marginalized people expand. UNDP also ensures that capacities to manage conflict, respond peacefully to tensions and resist shocks are strengthened at the level of the individual, community and state. The combination of these human development outcomes can in some contexts reduce conditions that are thought to be conducive to the spread of terrorist activity.
173. In particular, UNDP supports democratic governance including through encouraging political participation, public policymaking to establishing pro-poor growth, the development of laws and regulatory frameworks that combat corruption and safeguard human rights, and enhanced access to justice and security services for individuals and communities. Better governance continues to be a primary way in which UNDP supports the reduction and resolution of tensions in societies that can become drivers of violence.
174. UNDP now co-chairs, together with the Department for Peace Keeping Operations (DPKO), the UN Inter-Agency Security Sector Reform Task Force reporting to the Policy Committee of the Secretary General and is an active member of the Inter-Agency Rule of Law Resource and Coordination Group and the Rule of Law Unit at the DSG's Office. This reflects the scaling up of UNDP's engagement in Rule of Law, including access to justice and security.

World Customs Organization (WCO)

175. The WCO represents 177 member customs administrations which handle 98 per cent of the global trade. Customs' primary and unique role is to ensure that all goods, people and means of transport which enter or leave the customs territory (usually the territory of a jurisdiction) shall be subject to customs control to ensure the correct application of laws and regulations on the cross-border movement of goods (for instance, prohibitions and restrictions such as drug control regulations, implementation of international control or embargo/sanction regimes and many others).
176. Being aware that the global trading system is vulnerable to terrorist exploitation that would damage the entire global economy, the members of WCO endorsed the WCO SAFE Framework of Standards to secure and facilitate global trade. Among the objectives of this strategy are two elements which are of importance in the context of the proliferation of nuclear, chemical and biological weapons and their means of delivery:
- To strengthen cooperation between customs administrations to improve their capability to detect high-risk consignments;
 - To promote the seamless movement of goods through secure international trade supply chains.
177. The SAFE Framework of Standards addresses these objectives by various measures, including advance electronic cargo information, a consistent risk management approach, the use of non-intrusive detection equipment such as large-scale X-ray machines and radiation detectors, customs-to-customs data exchange (in particular high-risk consignments) to ensure integrity of the international supply chain.
178. Concerning measures in case of terrorist attacks using chemical or biological weapons or materials, the "Revised Kyoto Convention on the Simplification and Harmonization of Customs procedures" deals in Specific Annex J, Chapter 5, with procedures to be applied by customs administrations in case of relief consignments to aid to those affected by disaster.
179. Again in the context of disaster relief, the WCO Council has endorsed a Resolution of the Customs Co-Operation Council on the role of Customs in natural disaster relief in June 2011. Even though this document refers to *natural* disaster relief, it is equally applicable for "man-made" disasters as caused by chemical or biological weapons. The resolution calls, inter alia, for close cooperation with other national authorities, emergency planning, training and testing of emergency procedures, the organization of seminars in collaboration with OCHA and IFRC and the creation of a dedicated WCO website listing all relevant instruments and the links to various partners involved in managing natural disaster relief.

IV. Analysis: prevention and preparedness

180. The United Nations Counter-Terrorism Strategy (A/Res/60/288) and subsequent resolutions and reports emphasized a number of measures that States have resolved to undertake to prevent and combat terrorism. These measures aim at denying terrorists access to the means to carry out their attacks, to their targets, and to minimize the desired impact of their attacks. They include enhancing legal and international instruments, adopting measures to prevent illicit trafficking in nuclear, chemical or biological weapons, their means of delivery, and related materials, enhancing transport security, enhancing information sharing and coordination, and building response capacity and preparedness.
181. United Nations and other international entities are implementing a range of measures to assist States with these tasks, to provide international standards and guidance, and to support the development of national capacities in these areas. These programmes include the development of laws, regulations, standards and guidelines, the provision of legal assistance to States to incorporate these regulatory measures into national legislative frameworks, and measures to strengthen national as well as regional capacities to enforce them and to prevent proliferation and respond to attacks using weapons of mass destruction, including with regard to strengthening institutions and providing training and technical support, assistance with regard to transport security and border control, integrated assistance, and measures to protect vulnerable targets and engage the private sector.
182. This report section analyses the measures and activities implemented by UN and other international entities to assist and support States with measures that are specifically aimed at enhancing the prevention of and the preparedness for terrorist attacks involving chemical or biological weapons and materials.

Legislation and regulations

183. In the area of developing international laws and related regulatory measures relevant to terrorist activities involving chemical and biological weapons, several complementary directions have evolved: (1) the further development of counter-terrorism laws and related guidelines and standards taking specific account of terrorism threats involving chemical and biological agents, (2) work towards comprehensive and effective national implementation of treaty requirements emanating from the Biological Weapons Convention (BWC) as well as the Chemical Weapons Convention (CWC), and (3) legislative work in other areas (such as public health and animal health) relevant to the prevention of

and response to chemical and biological terrorism. Also relevant are efforts to strengthen governance systems in general.

184. A significant amount of work has gone into extending the coverage of prohibitions and regulations in the area of counter-terrorism legislation. The United Nations Economic Commission for Europe (UN ECE) and international organizations of the different transport modes (ICAO, IMO) have been developing international legal instruments aimed at enhancing the security of the transport systems. These international regulations address, *inter alia*, threats with regard to attacks on the transport system using chemical or biological agents, as well as circumstances when the transport system could be used to carry out attacks with such agents.
185. These international instruments need to be transferred into national laws and regulations to be effective. UNODC has taken a lead role in providing technical assistance and legal training to States with regard to the enactment and enforcement of counter-terrorism legislation.
186. The BWC and the CWC set out undertakings of their States Parties never in any circumstances to engage in the development, production, stockpiling, transfer and use of, respectively, chemical and biological weapons. Both Conventions use a concept known as “general purpose criterion” which creates a comprehensive and enduring prohibition of all possible chemical or biological weapons, governed by the purpose for which an agent was intended. In this way, both norms together cover *any* toxic chemical or biological agent if intended as a weapon. Furthermore, both Conventions require their States Parties to adopt national measures to prohibit and prevent acts in violation of the treaty by their subjects, or in locations that fall under their jurisdiction. Reviews of the treaty operations are carried out every five years for both treaties.
187. The OPCW and the ISU/BWC have both developed mechanisms to provide or arrange for assistance to the States Parties of their respective Convention to adopt national implementation measures including legislation. In the case of the OPCW, an Action Plan adopted after the First CWC Review Conference in 2003 and subsequent follow-up measures have provided technical assistance to CWC States Parties to enact comprehensive national implementing legislation. In the BWC context, the ISU/BWC has evolved as a clearinghouse for similar technical assistance arrangements between BWC States Parties, and recently a joint action has been agreed with the EU that offers legislative assistance to BWC States Parties.
188. Complementary regulatory work is undertaken by WHO and the World Organisation for Animal Health (OIE). These are particularly relevant for the prevention of bioterrorism acts, but may also be relevant for the prevention of chemical agents being used by terrorists. In the case of WHO, the entry into force of the International Health Regulations (2005) (IHR 2005) created legally binding requirements for States to strengthen their existing capacities for public health surveillance and response. In the case of OIE, the Terrestrial and Aquatic Codes and the related Manuals act as the principle reference for all OIE member countries in regard to the standards adopted by their veterinary services in relation to

prevention, surveillance, reporting and sanitary control of animal diseases and zoonoses.

189. In the context of the UN and other international entities involved in this survey, there does not appear to be a pressing need to develop additional international treaty norms to extend further the protections against terrorist uses of chemical or biological weapons and related materials. The existing international laws appear to be broad enough, and the focus should remain on providing guidance and technical support to States regarding the application of these existing international norms, rather than to develop new ones.
190. This does not mean that there may not be other areas that are relevant to the countering of chemical or biological terrorism, and where additional work with regard to international norm-setting may be required. It is likely that such gaps, where they exist, would be in more generic areas and not specifically related to chemical or biological weapons. An example is international regulatory norms and mechanisms in the area of countering financial support of acts of terrorism including with regard to the use of chemical or biological agents.
191. There has been only limited interaction and coordination between the different UN and other international entities with regard to the development of international norms and legal instruments. This has not, to date, caused any particular problems, but it is difficult to accurately assess at the level of international law and norm-setting whether there remain gaps, and whether the instruments adopted over the years are fully compatible and create a coherent legal structure to counter terrorism, including with regard to the use of chemical and biological agents. It may be useful to commission a comprehensive legal survey to map out more precisely which international norms are in force that are directly relevant to the prevention of chemical and biological terrorism. Such an analysis would however go beyond the scope of this current study.
192. With regard to technical assistance to States Parties to develop and enact the required legislation and regulations, a diversified patchwork of technical assistance activity has evolved. Entities such as the 1540 Committee experts and the ISU/BWC have taken on clearinghouse functions (and match-making in the case of the 1540 Committee) and rely on the capacities of States to provide technical legislative assistance. Other organizations such as the OPCW and UNODC provide direct support, based on their existing capacities and competences, to help States develop and enact legislation relevant to the prevention of terrorist acts involving chemical and biological weapons. It should be noted that in addition to UN and other international entities, a range of other actors are involved in these processes (regional organizations such as the EU, the NATO Euro-Atlantic Disaster Response Coordination Cell (EADRCC), the African Union (AU), the Organization of American States (OAS) and the Association of Southeast Asian Nations (ASEAN); the International Committee of the Red Cross (ICRC); non-governmental organizations such as VERTIC; and several States with external technical assistance programmes).
193. Coordination and information sharing between these different processes and actors has improved over the years but there remain deficiencies. Well before this

study was commissioned, these issues were discussed among the different “providers” of technical assistance, and the conclusions reached in these discussions continue to be relevant.¹¹

Strengthening national and regional institutional capacity

194. In addition to legislative support, a number of UN and other international entities are rendering support to the strengthening of national as well as regional institutional capacity relevant to the prevention of and response to chemical and biological terrorism. At the national level, the measures taken support the establishment of national focal points (designated focal points, national authorities) and networks; they provide assistance with the development of inter-ministerial and interagency coordination mechanisms; they provide assistance in outreach activities to relevant industries and the public; and they help in certain cases with the development of institutional capacity (needs assessments, guidelines and tools for national plans to improve response capacity). At the regional level, the activities undertaken by the UN and international entities covered in this survey promote regional coordination, information sharing and cooperation between the States and agencies of the regions that are involved in contingency planning for and response to chemical and biological terrorism threats.
195. The different UN and other international entities cover different areas of institutional and regional capacity-building: law enforcement; support with the establishment of national systems and interagency coordination mechanisms; support with contingency planning including in public health, the veterinary sector and with regard to food chain security; the establishment and maintenance of core national public health capacities; gap analysis as well as self-assessment tools and planning of specific capacity-building measures in the veterinary sector; development of systems and measures for transfer controls and the prevention of illicit trafficking, and transportation security measures in the different transport modes.
196. The assistance offered by the different agencies and organizations can come in a variety of forms: guidelines and standards; technical and administrative support in network building using modern communications technologies including the Internet; technical assistance with the development of databases and other information repositories, self-assessment tools to test the resilience of national (as well as subregional and regional) preparations to deal with incidents involving the release of chemical or biological agents, to identify weaknesses and develop plans to overcome them; measures to support national laboratories (different forms of technical assistance, laboratory twinning, help with the setting up of quality systems and measures to enhance accessibility of methods, reference standards and the like).
197. Depending on the mandate and technical competence of the organizations and agencies, their technical assistance is either focused on a particular set of

¹¹ See, for example, the Workshop report “Implementation of UNSC resolution 1540 at the national level: promotion of best practices and policy and technical co-ordination and co-operation”, Clingendael Institute, The Hague (2009).

objectives (for example, in the case of the OPCW, its implementation support programme that increasingly through regional initiatives addresses specifically national authorities established under the CWC as well as legislative and regulatory measures directly related to the implementation of the CWC), or they take an integrated/holistic approach (such as in the case of UNICRI which develops its concept of regional centres of excellence under a holistic CBRN approach). Both approaches are complementary but there is a strong need to ensure good coordination and information sharing. In particular, projects that take an integrated CBRN approach will depend critically on the support by those agencies and organizations which specialize in particular technical fields (chemical weapons, biological weapons, transportation security, and so forth). On the other hand, agencies and organizations working in sectoral mode need to develop their technical assistance activities within the broader spectrum of activities in the CBRN preparedness and prevention field and coordinate their activities with other agencies/organizations so as to avoid duplication of efforts, ensure consistency and help States that receive technical support to manage the different processes effectively.

198. One example of directed capacity-building is the one that is offered by INTERPOL within the framework of the CBRN Terrorism Prevention Program and the Bioterrorism Unit for law enforcement authorities. The Chemicals and Explosives Unit to be launched in 2012 will put in place a similar programme to deal with chemical threats.
199. There also is a need for better sharing of experience between the different organizations and agencies, and the identification and spreading of best practices in strengthening national and regional capacities. Experience over recent years has demonstrated the value of a systematic approach with regard to needs assessment as the basis of technical assistance programmes. A no-one-size-fits-all approach is needed which tailors assistance to the specific conditions and requirements of the States concerned. Exchanges of experience between organizations and agencies that provide technical assistance are useful on how to achieve the full commitment by the partner countries.
200. Another experience of technical assistance programmes of recent years in the area of CBRN risk mitigation is that regional and subregional approaches should be pursued. Several organizations/agencies are pursuing such regional capacity-building, in the form of UNICRI's centres of excellence, regional and subregional workshops and seminars, and other types of projects. The advantage of regional approaches does not only lie in the greater effectiveness of the technical assistance provided. There also is greater potential for regional buy-in and thus more sustainable results. The networks that emerge from such projects can also become important in response situations when the effect of crisis management measures depends critically on smooth communication and trust between the actors involved in an operation.
201. There are certain areas of chemical and biological terrorism preparedness and prevention that are not covered by the technical assistance programmes offered by UN and other international agencies and organizations. A typical example is the procurement of equipment (detection, diagnosis, protection, decontamination,

medical equipment). There are donor organizations that offer such types of assistance, and collaboration and linking-up with technical assistance programmes implemented by countries would be beneficial.

Training and exercises

202. Preparedness for chemical and biological terrorism requires regular training and exercises to test the viability of adopted procedures, to establish and maintain functioning relationships between the different actors (agencies, ministries, etc.) in a crisis situation, to test interoperability of equipment and procedures and to identify and rectify gaps and incompatibilities in the response system. Training and exercises are important at the national level; they are equally important in a bilateral and (sub)regional contexts when response action to an incident may require the action of more than one country (transboundary effects, incidents in border areas, threats that are aimed at multiple targets in several countries, and the like).
203. A number of UN and other international entities have developed training programmes that are relevant to the increase of preparedness in the field of chemical and biological terrorism. INTERPOL, in cooperation with a number of other international organizations, provides specialized training and exercises directed toward law enforcement authorities. The OPCW offers international, regional and national training under the protection capacity-building programmes and conducts exercises in the delivery of assistance in response to assistance requests if chemical weapons have been used against a State Party (or in case of threats to that effect). UNODA supports a training programme for its roster of experts dedicated to investigations of alleged use of chemical and biological weapons, under the UN Secretary-General Mechanism. IMO provides training with regard to ship and port security. UNICRI's centres of excellence are planned to provide, inter alia, regional training in CBRN response measures as well as exercises to test existing national and regional response mechanisms and preparedness. The centres of excellence offer an opportunity to enhance coordination between these different activities and may allow moving closer to a holistic approach with regard to CBRN terrorism preparedness at the national and regional levels.
204. In addition to large-scale exercises, there is a need for focused, smaller-size exercises (table top exercises, command post and communications exercises, etc.). These can be used to simulate key decision-making and information sharing processes, which are critical in crisis management situations. They are also relatively inexpensive and allow for a more effective involvement of a larger number of actors (national agencies, multiple countries, regional and international organizations and agencies, non-governmental organizations) in a response simulation. They appear to be ideal tools for bringing multiple actors together and should be used more frequently.

Prevention

205. A priority in the fight against terrorism is the prevention of a terrorist attack. A range of the activities undertaken by international organizations, and that have

been reviewed above, aims at building institutional capacity at the national level for the prevention of chemical and biological terrorist attacks. This includes a wide range of measures such as support to the implementation of effective import and export controls of critical materials, steps taken to enhance security at facilities and installations to prevent access by terrorists to chemical and biological weapons materials, border controls and other measures to prevent illicit trafficking of sensitive materials, steps to enhance transport security.

206. The national law enforcement authorities have a central and key role in the active prevention of chemical and biological terrorist attacks. In addition to supporting building institutional capacity in the prevention of terrorism, INTERPOL, within the framework of the CBRN terrorism prevention programme, provides key support to the local law enforcement authorities specifically targeted at preventing terrorism. A key element is the ability to exchange critical information over the secure communications network and the reporting of suspicious activities and possible threats detected by law enforcement officers in one country internationally. Through INTERPOL, member country police services are provided timely criminal intelligence regarding the threat posed by terrorism and other crimes using CBRN materials. Other measures implemented are tripwire programmes, which include industry connectivity regarding orders, precursor analysis, plant security and transportation liaison.

V Analysis: response to chemical and biological terrorism

207. The following discussion of mechanisms, responsibilities and capacities of UN and other international entities in the area of response to a terrorist attack using chemical or biological weapons has been split into three separate sections; first dealing with chemical incidents, then with biological weapons, and finally with the management of public information in crisis situations caused by attacks with chemical or biological weapons. This was necessary given the profound differences between chemical and biological incidents, and thus the different approaches necessary in the response to them.
208. A chemical or biological terrorist attack is a criminal act, and the site of the incident is a crime scene. This has implication for the involvement of international organizations in the response to the attack. The local law enforcement authorities will, in the process of a criminal investigation of the site, collect and document forensic evidence. This might have implications for access and collection of samples by teams from international organizations.

5.1: Chemical weapons

209. The possibility of an early recognition that a chemical terrorist attack has taken place and the response to such an attack will depend on the specific circumstances of the attack. The range of chemicals that could be used in an attack is very wide and includes classical chemical warfare agents, toxic industrial chemicals (TICs) and toxins. The response can involve law enforcement; emergency rescue and medical services; units of armed forces; identification of the chemical agent through detection or chemical analysis; response from the health services system; systems related to food chain safety; decontamination; incident investigation and forensics; and measures needed to ensure short- and long-term recovery.

Nature of possible chemical terrorist attacks

210. The nature of a terrorist attack using chemical weapons or materials could be such that it is immediately clear that a chemical incident has taken place although it might not be clear that it is the result of a malicious act. A terrorist attack using an explosive device for dissemination could initially be regarded as an explosive incident. If the onset of symptoms from the exposure is rapid, this could trigger the recognition that it was a chemical event. Alternatively the chemical nature could be recognized through chemical detection/analysis, or from the context (attack on a chemical plant or warehouse; attack on a transport vessel carrying

toxic chemicals). A terrorist attack using a “silent” dispersion device, on the other hand, might only be recognized as a chemical incident through the onset of symptoms or detection/analysis.

211. Chemicals with a delayed effect, such as sulphur mustard, pose a specific problem. Unless it has been recognized early that a chemical attack has taken place and people have been exposed, the first indicators might be picked up by the health services as people are seeking medical care. An additional complication is the risk of secondary contamination of personnel and equipment as long as the chemical nature of the event is not recognized.
212. A chemical terrorist attack directed towards the food chain might be particularly difficult to detect. The onset of symptoms in people affected can take a long time and be geographically distributed. The event could be picked up by the health services and depending on the characteristics of the symptoms it might not initially be recognized as a chemical event.
213. High-profile large-scale public events such as major sporting competitions or cultural open-air events are recognized as high risk events for terrorist attacks. As such they can, as already has happened, trigger a request for assistance to increase the preparedness to deal with a possible terrorist attack using chemical weapons. In such cases, coordination between the concerned international organizations could increase the effectiveness of the support provided and prevent wasteful duplication of efforts.

Early warning

214. A terrorist attack involving chemical weapons can lead to severe casualties very rapidly—within minutes of the release of the chemical—and consequently there will be in such cases no early warning of the developing situation. This is unlike a release of biological agents, where the initial phase of a disease outbreak following clandestine release of an infectious agent can be picked up by systems in place to monitor human (WHO Global Alert and Response Network (GOARN)¹² and/or WHO Global Chemical Incident Emergency Response Network (ChemiNet))¹³, and animal or zoonotic diseases (GLEWS and WAHIS). The systems designed to detect natural disease outbreaks can, however, play an important role in providing a warning in cases of chemical agents with a delayed action or a chemical attack against the food chain. In these cases the first indicators could be recognized by the health services (human and animal) rather than by law enforcement and first responders. Specifically for an attack directed on the food chain, the International Food Safety Authorities Network (INFOSAN) can play a key role in identifying and alerting relevant authorities of an event with potential international consequences.

¹² <http://www.who.int/csr/alertresponse/en/>.

¹³ <http://www.who.int/ipcs/emergencies/strengthening/en/>.

Identification of the chemical agent

215. To respond effectively to a chemical incident, it is essential that the chemical is identified as early as possible to allow for the correct actions to be taken, including protective measures, treatment of casualties, evacuation and decontamination.
216. A large number of mobile detection equipment allows for the identification of both classical chemical warfare agents and TICs. However, detection means used by the armed forces are often limited to the classical chemical warfare agents. The OPCW Investigation of Alleged Use (IAU) teams and the INTERPOL Investigative Response Teams (IRTs) can deploy mobile detection equipment to the site. INTERPOL can support identification of the chemical through associated forensic laboratories.
217. If the chemical used in a terrorist attack is not identified in the initial phase, the OPCW IAU team has the capability to do this by analysis of trace amounts of chemicals and degradation products on site using its mobile laboratory. As required, the result of the on-site analysis can be supported by analysis off site by sending samples to OPCW designated laboratories.
218. Taking into account the timescale for the impact of the chemical in a terrorist attack using chemical weapons, resources outside the country where the incident took place, such as those provided by OPCW and INTERPOL, will be late in providing identification of the chemical to support the decisions that have to be made to deal with the immediate situation. Consequently, the capability of the local rescue services to identify the chemical is critical for the decisions on the actions to be taken during the initial response phase.
219. The identification of toxins poses a special problem. They are not detected by any standard hand-held mobile detectors and usually can also not be analysed by the standard GC-MS techniques used by, e.g., the OPCW on site. Confirmation of the identity of a toxin would require off-site analysis at a specialized laboratory. The OPCW is in the process of building up a network of laboratories that can undertake analysis of toxins. In addition, there are other laboratories that have gathered experience in toxin analysis, for example, in food safety screening or specialized research areas. These tend to be laboratories that have particular experience with certain types of toxins but, with the exception of toxicological/forensic laboratories, they rarely cover a broad variety of toxins.

First response

220. If the dispersion of the chemical is “silent” or involves, e.g., contamination of food, the first response can involve the public health services of the country(-ies) concerned. Once the source is identified, it would then likely involve local authorities responsible for food safety and law enforcement. WHO in coordinating and managing public health, and together with FAO under its responsibility in the area of food safety and the associated warning, reporting and analysis systems (INFOSAN, Emergency Prevention System for Transboundary Animal

and Plant Pests and Diseases (EMPRESS), Food Chain Crisis—Emergency Management Unit (FCC-EMU)), could play a significant role in recognizing that a terrorist attack using chemical weapons has taken place, and help establish the nature of it.

221. In the case of an overt terrorist attack using chemical weapons, the first response will come from the local law enforcement and rescue services. Depending on the country, the armed forces could be involved from the outset. In responding to a terrorist attack, there are three priorities:
- Providing medical assistance to possible casualties;
 - Reduce risk for additional casualties by evacuation, decontamination and, if possible, reduce the spread/dissemination of the chemical;
 - A criminal investigation to collect forensic evidence to allow for the identification and apprehension of the perpetrators.

International organizations responding to a terrorist attack using chemical weapons and materials

222. The development of a terrorist attack using chemical weapons can be very quick, from minutes to hours. From this it follows that if support is requested from the international community, e.g., INTERPOL and OPCW, it would not be on site to deal with the initial phases. INTERPOL can deploy the ITR within 24 hours to any location worldwide. The target for OPCW is to deploy the team from The Hague within 24 hours. To reduce these times significantly would require an advance indication of an immediate terrorist threat which could trigger deployment in advance of an attack.
223. Request of assistance from and cooperation with INTERPOL falls within the normal working pattern for most law enforcement authorities. Consequently the support from INTERPOL can be integrated in the ongoing work by the law enforcement authorities to secure evidence as part of the criminal investigation. Support can also be provided by INTERPOL to the local authorities prior to arrival of the IRT by providing advice on actions to be taken.
224. For a State Party to request assistance from the OPCW requires that the terrorist attack has been recognized as potentially involving chemical weapons. The scale and nature of the attack would also have to be such that it is deemed necessary by the local authorities to request outside assistance to investigate the nature of the attack and/or receive assistance to cope with its consequences. The OPCW currently has no established mechanism in place to provide expertise advice prior to the arrival of the OPCW team at the site.
225. One primary task of the OPCW IAU team is to collect information on the alleged attack to be reported to the Executive Council. This collection of facts on the attack could, unless carefully considered in advance, come into conflict with the establishment of forensic evidence by the law enforcement authorities during their criminal investigations. If information on, e.g., chemicals collected by the OPCW team was to be used as evidence in court, the standard for the

procedures used must match the requirement of the legal system. The OPCW has very stringent and detailed procedures for sampling and analysis, including with regard to protecting the chain of custody. It remains to be tested, however, to what extent the information so collected could be used in the context of a criminal prosecution.

226. The Secretary-General's Mechanism for investigation of alleged use of chemical, biological and toxin weapons (SGM) could come into play in a chemical terrorist attack on the territory of a non-State Party to the CWC or on a territory not controlled by a State Party. As mentioned in chapter II, the OPCW should in such cases cooperate with the Secretary-General and if requested put its resources at his/her disposal. There is as of today no additional agreement between OPCW and UNODA on the practical implementation of this provision. For further discussion on the SGM, see Section 5.2, response to a biological terrorist attack.
227. UNICRI's efforts to set up national and regional networks among law enforcement and other agencies are creating a framework for information sharing that could enhance the coordination of the response to an attack. For detail see paragraphs 131-134.
228. Depending on the circumstances, four international organizations can potentially deploy a team to investigate, or support local authorities in the investigation of, cases of alleged terrorist use of chemical weapons: OPCW, UN through the SGM, INTERPOL and WHO. There is currently no coordination in the deployment of the investigation or support teams. On one given occasion, 3 independent teams could be fielded without prior coordination, e.g., INTERPOL, OPCW and WHO.

Joint expertise in investigation teams

229. The composition of the international investigative teams includes various organizations and can include staff from the organization in question, staff seconded from other organizations and external experts. An investigation under the SGM is dependent on experts from Member States to make up the team. As specified in the CWC, the OPCW should under certain circumstances put its investigative resources at the disposal of the Secretary-General for an investigation under the SGM. The 2011 MoU between UNODA and WHO regulates the support by WHO for the SGM. OIE has established collaboration with UNODA and may provide animal health experts to assist with the SGM. The OPCW IAU and ACAT teams can be augmented by qualified experts nominated by States Parties.
230. The above can be seen as an incomplete matrix where the training and deployment of the international expertise in this field is not optimally coordinated between the international organizations concerned. It could be explored to what extent additional coordination could be achieved to facilitate training and to better draw on the existing expertise both from international organizations and external experts.

Overall assistance

231. The OPCW is the only entity with a direct mandate and preparations made to provide specialized assistance in the case of use of chemical weapons. The substantive part of the assistance that can be provided by the OPCW is dependent on the offers from States Parties of the CWC. Consequently, the timing of delivery depends on the readiness of the concerned States Parties to provide the resources offered and how quickly they can react following the request. The OPCW must also coordinate the transport of persons and equipment to the site.
232. Taking into account the potentially very rapid development of the consequences of a terrorist attack using chemical weapons where key actions will have to be taken within the first hour(s), it is not likely that any assistance can be delivered on site for the initial phase of the response. Once a decision has been made to deliver assistance, it will be critical to match the type of assistance with the actual needs at the time the assistance arrives on site. It should be recognized that the needs at the time the assistance can be delivered does not necessarily match the needs when the request was made, e.g., first responders arriving 2 days after the event might not be an optimal use of resources.
233. The role of the OPCW ACAT has been tested and tried in a number of exercises. From these exercises it is clear the ACAT can play an important role in the coordination OPCW activities such as the IAU team and OPCW delivery of assistance with the local emergency management authorities and other international organizations on site. At the same time it has been recognized that additional specialized training and dedicated exercises are required to be able to meet the requirements of an emergency situation.
234. UNOCHA has participated in a number of OPCW exercises that aimed to test mechanisms for the delivery of humanitarian assistance in situations following the use of chemical weapons. A key objective for participation in these exercises has been the establishment of the On-Site Operations and Coordination Centre (OSOCC) for coordination with local authorities and other relevant actors. It is clear that in situations following the use of chemical weapons with a significant number of casualties, the role of United Nations Disaster Assessment and Coordination mechanism (UNDAC) in coordinating relief efforts will be critical. Depending on the types and scope of possible scenarios involving the use of chemical weapons, the humanitarian impact may be limited, and may therefore not require the triggering of a mechanism for coordinating and facilitating relief efforts such as UNDAC.

Decontamination assistance

235. There might be an immediate need for decontamination at the time of managing the casualties on site to stop further exposure and allow a person to be transported without causing secondary contamination. This will be the task of the emergency services but access to rapid advice from experts on procedures and what to use in the absence of dedicated decontamination equipment and material could greatly facilitate their task.

236. The characteristics of the chemical that has been dispersed and the temperature will determine the further need for decontamination. In the case of a non-volatile chemical there can be a significant need for decontamination days after the dispersion and particularly in an urban and industrial environment where safe access must be restored to allow vital functions of society to resume and where a complex mix of structures and materials pose a significant challenge for decontamination. One option available to achieve this is the assistance offers by CWC States Parties that include both expertise in decontamination and equipment that could be critical in making a site safe after a chemical terrorist attack.

Medical assistance

237. Another important element in the assistance that could be required following a chemical terrorist attack is medical care for the casualties. While the initial care would have to be handled by the local emergency and health services, support can be essential for medium- and long-term care. The offers for assistance by States Parties to the CWC include the deployment of specialist in treating chemical casualties. Also, WHO can provide advice on the treatment following chemical exposure. The availability of this kind of assistance can be critical in mitigating the effects of chemical exposure.

Information sharing

238. For all concerned international organizations to respond effectively it is essential that critical information be shared. The mandate of the organizations and the task to be performed can, however, limit what information can be shared.
239. In the case of INTERPOL, and the local law enforcement authorities, there are limitations on the information that can be shared from an ongoing criminal investigation when building a case against the potential perpetrators. In addition the distribution of operational information from INTERPOL is largely restricted to the secure communications network accessible only by law enforcement authorities in the Member States.
240. The request for assistance to the OPCW is distributed to all States Parties. It is also envisaged that the Director-General of the OPCW will report to the States Parties on the ongoing investigation including by submitting the 24 hours interim report. The final investigation report is submitted to the OPCW Executive Council for its consideration. In reality this results in all information being accessible to all concerned as it becomes available. According to CWC Article X, paragraph 10, the investigation report from the IAU, together with the decision by the Council, should be distributed to relevant international organizations. This could at the earliest be 5 to 6 days after the request was submitted and not until then are other international organizations formally provided with information collected by the OPCW. The Council can, however, instruct the Director-General to provide immediate assistance and in this the Director-General shall cooperate with relevant international organizations. It is not clear when this could happen.

241. In the case of WHO, information from a potential deliberate event including the result of an investigation would be treated like any other public health event. The information would be shared with the concerned regional and country offices and the national focal points. The latter is normally the ministry of health or a corresponding governmental office. WHO will not inform the local or international law enforcement authorities but that would be in the hands of the national focal point. Information would, though, be shared with partner organizations within the UN system.
242. If the SGM were requested by a Member State to investigate an alleged use of chemical weapons, the fact of a request for an investigation as such would be public information. The investigation should be carried out promptly and the report would be provided to all UN Member States. There are no defined time-lines for the investigation and the submissions of the report. The report will be submitted to the General Assembly at which time it becomes public and thus will be available to other relevant international organizations. The guidelines for the conduct of an SGM investigation provides for the team to meet as necessary with representatives of international organizations present in the country.
243. The lack of information sharing procedures among concerned international organizations from ongoing investigations could lead to actions taken and decisions made based on incomplete or outdated information. Ways should be sought to ensure that critical information is shared in a timely manner to ensure an effective and coordinated response from the international community.

5.2: Biological weapons

244. The response to biological attacks involves several distinct steps, which depending on the specific circumstances of the biological attack, may include early warning and detection measures/systems, identification of the agent(s) involved, epidemiology, first response, law enforcement, response of the public health system/veterinary system/systems in the area of plant protection/systems related to food chain security, decontamination, incident investigation and forensics, and measures needed to ensure short and long-term recovery.

Nature of possible biological terrorist attacks

245. The targets of a biological attack can be humans, animals or plants. That includes the possibility of biological attacks on the food chain. Second, biological agents are disease factors (living organisms that infest a host and multiply there)—their effect is normally delayed by several days (latency period), and the onset of symptoms may or may not be specific to the disease. Thirdly, disease can spread by contact between infected victims and healthy individuals (animals, crops). This creates a broad range of possible scenarios for biological weapons attacks that need to be taken into account when addressing response strategies.
246. With regard to animal diseases, the connection between a terrorism event and the problem caused would be innately different to that which might be expected

in biological attacks on humans. Public health threats are less likely to be of a contagious nature and criminal activity may be an early consideration. Public health responders will engage from that position. Animal health events, on the other hand, are less likely to be of a localized nature. A biological animal health emergency is much more likely to be first noticed because the disease has spread. The forensic trail will be cold and the public interest will likely be best served by immediate intervention to stop disease spread. The apprehension of perpetrators may be less important than the immediate response to the problem, which at that stage is akin to a natural disease outbreak.

247. Historically, biological weapons were often used clandestinely. In such an attack, it is often difficult to recognize that a deliberate agent release has taken place. The features of the outbreak may not differ much from a natural disease outbreak, in particular if the disease is endemic in the region where the attack took place. In case of contamination of the food chain, it can take days to weeks to identify the original source of the contamination, and sometimes it may never be possible.
248. Because of the spread of the infection during the latency period, disease spreads from its origin to remote locations—quite different from a radiological or chemical incident. This has a major impact on the pattern of a disease outbreak and its spread, given today's global transportation systems for humans and animals as well as crops and related products.
249. Also, the objective of the attack may not be primarily to cause casualties, but to cause economic damage (e.g., by contamination of cattle herds or staple crops) or to inflict terror in a population. For example, with regard to the possible terrorist use of plant pests (insects, pathogens, viruses, weeds, etc.), it should be noted that these do not directly affect the health of humans but can have a massive impact in terms of food security, diet/nutrition, trade and the environment. They usually take longer to impact than human or zoonotic diseases, but the cost of their management and eradication can be enormous. Trade may be impacted enormously *and* immediately, as recent natural cases of food contamination have again shown. Hence, in addition to considering the direct impact of biological attacks on human, animal and plant health, the economic (direct and indirect) impact of reactions (including overreactions) to such incidents must be considered as it could easily cause social unrest, especially in economies that are already under pressure financially or in terms of food security.
250. On the other hand, biological agents can be released by using specially designed dissemination devices that create a localized primary contamination of air, water or on surfaces (spraying devices, certain types of bombs, etc.). Such devices can be improvised but the effective dissemination of biological agents remains a technical hurdle that terrorists have so far found difficult to master.
251. In general terms, sophisticated means of biological warfare including by using advances that the life sciences and enabling technologies have brought about in recent years probably remain beyond the reach of terrorists today. On the other hand, more traditional means of biological warfare can be used relatively easily, and infectious materials are widely available in society and nature.

Disease surveillance and early warning

252. Early warning systems are important in cases where biological agents are released in a clandestine manner. They can also play a role in the early identification of clandestine chemical attacks.
253. Early warning systems have been put in place to detect the occurrence of natural disease outbreaks. There are formal legally binding notification procedures in place for both human (WHO-IHR) and animal (OIE-WAHIS) disease outbreaks. Disease tracking mechanisms also exist for human disease outbreaks (WHO GOARN) and zoonotic disease outbreaks (GLEWS). These disease tracking systems collect data from open sources and use validation techniques to test the quality and reliability of the data.
254. These disease surveillance and early warning systems trigger official response mechanisms of the WHO and, with regard to animal disease outbreaks and threats to the food chain, of OIE. INFOSAN provides a means for exchange of information on food safety related issues and can have a key role in identifying and alerting relevant authorities of a biological terrorist attack directed against the food chain with potential international consequences.
255. These existing mechanisms are proven and are being used on a daily basis in the surveillance of naturally occurring outbreaks. Human health surveillance and the surveillance of animal diseases are not carried out in isolation but there are routine links between the different early warning systems. There appears not to be a need to develop additional international mechanisms in this area but the existing mechanism should be further strengthened.
256. Biological attacks can also be directed against plant life (staple crops, for example). Measures in place to protect the food chain will address some of these situations but there does not seem to be in place a surveillance, early warning and crisis management system for disease outbreaks in plant life comparable to what is in place for human and animal life.
257. The possible use of plants as weapons (economic or food security “weapons”) needs to be addressed urgently as many of the basic building blocks are not being adequately addressed. This includes issues relating to awareness/relevance; coordination and cooperation; and capacity-building. This subject is part of FAO’s mandate in the context of monitoring, diagnostics, reporting and emergency response management, but is not part of FAO’s mandate in terms of deliberate releases. FAO’s response and the tools and processes applied are the same regardless of source or intention. The data that is collected for natural events should be shared with partners who deal with deliberate release, provided their actions do not result in undue delays that will negatively impact on the emergency management of such outbreaks.
258. The International Plant Protection Convention (IPPC) provides the regulatory and technical framework (new transboundary pests) in which much of this work can be undertaken. Additional funding would be needed, however, to ensure that the plant health framework will become as robust and extensive as it should be. International and national commitment is urgently needed and the natural extension of the IPPC programme is EMPRES Plants for normal transboundary pests.

Identification of the agent(s) involved

259. The identification of the agent(s) involved in an outbreak is an essential aspect of the response. It confirms and adds precision to warnings raised from surveillance and early warning systems. In scenarios where biological agents are released using improvised (explosive or other) dissemination devices, the early and accurate identification of the agents(s) involved is important to confirm that a biological weapons attack has actually taken place (in such a scenario, the disease outbreak has yet to occur given the latency period), and to decide on appropriate remedial measures (treatments, decontamination).
260. For human diseases, WHO has access to an international network of laboratories and WHO Collaborating Centres¹⁴ (WHOCC) to help with the disease identification. For animal diseases, OIE has at its disposal a global network of 225 laboratories capable of analysing the more than 100 animal diseases listed by OIE. In both cases, appropriate procedures and arrangements for sample transportation are in place.
261. From experience with natural outbreaks, it appears that these capabilities may be adequate to deal with deliberate releases of biological agents also in cases where the outbreak is gradual and spreads in similar ways as a natural outbreak would. In such scenarios, the detection, identification and countermeasures are essentially the same for natural and deliberate outbreaks. If a biological agent was released with an improvised dissemination device (for example, as an aerosol), or water or food supplies were contaminated, the local capability to identify the agent involved as soon as possible will be critically important for an effective response. In such scenarios, international mechanisms are a back up and can help countries when local authorities lack experience or resources to confirm suspicions, albeit with a delay in response time.
262. The results of these identification measures are relevant for subsequent forensic investigations. To ensure that the measures taken in the early stages of a response to a biological incident do not compromise subsequent law enforcement measures including forensic investigations, a working interface between public/animal/plant health organizations and law enforcement organisations is important. In the case of WHO, such an interface has been developed together with UNODA and is under development with INTERPOL. The situation with regard to animal and plant health seems to be more ad hoc and there are risks that without such an interface chain of custody problems may compromise the evidence collected and analysed in the early stages of a response. That should be rectified.

Epidemiology (identification of the source of an outbreak)

263. In particular in case of outbreaks after clandestine releases of biological agents, epidemiological investigations are important to trace the disease progression

¹⁴ <http://www.who.int/kms/initiatives/collaboratingcentres/en/>.

back to the original source(s). This may be part of confirming the nature of the outbreak, or of demonstrating that it was not a naturally occurring outbreak but linked to a specific source (institution, location, individuals) which was involved in the original agent release (whether accidental, by negligence or deliberate).

264. WHO, FAO and OIE have capacity within their respective mandates and programme areas to undertake or scientifically support epidemiological research related to disease outbreaks. As in the case of agent identification, it will be important to ensure a proper relationship with law enforcement should the incident turn out to be a deliberate release. Again, while the WHO is developing a working relationship with INTERPOL to exchange information during such scenarios, the relationship between FAO/OIE and law enforcement agencies appears to be ad hoc. It may be desirable to develop coordination mechanisms at the international level with regard to the interface between animal health/food chain security and law enforcement organizations, similar to the public health—law enforcement interface.

First response and subsequent response measures

265. In case of a biological incident affecting the human population, the first response will usually involve the public health system(s) of the country or countries concerned. WHO will detect such outbreaks through its early warning system and lead the response at the international level. It has an overarching coordinating and management role, manages public health consequences and communicates real-time public health risk assessments and recommendations to countries.
266. In case of a biological agents release using improvised dissemination devices, scenarios are more likely where there is a distinct incident scene, and where the first responders include fire brigade, police, medical emergency teams and environmental protection teams. In such cases, it is not always apparent that a biological attack has occurred, and early diagnosis of the agent(s) involved becomes very important. In such situations, the interface between the public health system and law enforcement becomes critical.
267. In addition, and complementing the measures taken by WHO, there is the possibility for States that are party to the BWC to route assistance requests through the ISU/BWC to call for bilateral assistance by other States Parties. That may be important when national resources in the affected countries are insufficient to deal with the dimension of an attack (lack in capacity in such areas as detection and identification of biological agents, medical treatment, and so on).
268. WHO has programmes in place to manage and support the longer-term response to biological threats. This is not different from its normal work with regard to managing disease outbreaks.
269. In case of a terrorist attack on animals, OIE and FAO's CMA-AH may be activated to coordinate the response at the international level. OIE may also provide OIE experts at the request of an OIE member country. In the case of an attack with a zoonotic agent OIE, FAO and WHO may work closely together and initiate a tripartite response to the disease outbreak. The measures available include

the dispatch of expert teams and the support of national authorities that deal with mitigating the impact of biological incidents affecting animal life. Similar measures would be activated in case of attacks on the food chain.

Law enforcement

270. The way in which law enforcement agencies get involved (both in terms of timing and interaction with the public health or veterinary systems) in responding to a deliberate biological weapons release will depend on the scenario. In case of a clandestine release that is detected through the public health or veterinary systems, law enforcement will often get involved in response to the results of analytical and epidemiological investigations already undertaken by other organizations. In case of an incident involving, for example, an improvised explosive dissemination device, law enforcement may get onto the incident scene well before it has been established that a biological agent release has occurred.
271. It will be impossible to predict all possible scenarios of such attacks and assess their likelihood. This is why it is important to develop a good working relationship between law enforcement agencies on the one hand, and public/animal health authorities on the other, *before* an incident has occurred. That applies at the national as well as the international levels.
272. A key partner for the local law enforcement authorities is INTERPOL. Through training and other resources made available within the Bioterrorism Unit of the INTERPOL CBRN Terrorism Prevention Program law enforcement agencies can enhance their capacity to deal with a biological terrorist attack and have access to key information to deal with the event. The IRT can be deployed within 12 to 24 hours anywhere in the world and provide analytical and investigative support on site.
273. Request for assistance from and cooperation with INTERPOL falls within the normal working pattern for law enforcement authorities. Consequently support from INTERPOL is integrated in the ongoing work by the law enforcement authorities to secure evidence as part of the criminal investigation. Support can also be provided by INTERPOL to the local authorities prior to arrival of the IRT by providing advice on actions to be taken.
274. UNICRI's efforts to set up national and regional networks among law enforcement and other agencies are creating a framework for information sharing that could enhance the coordination of the response to an attack. However, the KMS and CoE concepts are not specifically set up for the sharing of operational information in a crisis situation. They do support crisis management measures, however, in particular when several countries are involved, because they create personal and institutional links. Also, these systems provide access to information and expertise which may be important for the law enforcement response. It remains to be seen whether in the future these networking concepts will take on an active operational role in an incident response.
275. The relationship between law enforcement and animal as well as food chain protection appears to be less structured than with regard to human diseases, and has

more of an ad hoc character. For example, both FAO and OIE have procedures in place to collect and ship samples for laboratory analysis, but whether these steps are being implemented in accordance with law enforcement requirements to protect the chain of custody and preserve evidence in a stage that it remains admissible in legal proceedings was not clear.

Decontamination

276. In the case of a biological agent release that leads to a disease spread over a longer period of time (similar to a natural outbreak), measures to decontaminate (disinfect) persons, surfaces, equipment and other items are the same as those used routinely as precautions at medical facilities and in public places to ensure proper hygiene and to avoid the spread of disease. These measures are combined with advice to the public about how to minimize the risk of contamination and disease spread. Similar measures are available in the veterinary sector.
277. Issues that need to be addressed in this respect relate to the strengthening of national public health and veterinary systems, in exactly the same manner as is necessary to enhance the standards of these systems for their day-to-day work.
278. In case of releases of biological agents involving improvised dissemination devices that disperse biological agents into the environment (the atmosphere or water supplies, for example), special decontamination measures may be required. Measures with regard to the disinfection of contaminated areas (ground, building, equipment, etc.) and people are the responsibility of the country where an incident has occurred, but there may be cases when external help is required.
279. WHO has in-house knowledge and access to external expertise that may be useful to provide technical advice to countries that are managing a crisis involving a biological agent(s). That could also include access to expert advice with regard to decontamination.
280. If there are needs for support with special situations requiring decontamination (for example, technical expertise with regard to agents that pose particular decontamination issues, such as Anthrax), BWC States Parties have the option of routing assistance requests through the ISU/BWC to other BWC States Parties that have competence in the field.

Investigation and forensics

281. Investigations of incidents that might be the result of a deliberate release of a biological agent are important to gather and protect evidence that can subsequently be used to prosecute the perpetrators. Such investigations are primarily the responsibility of the law enforcement agencies of the country where the incident has taken place. Law enforcement agencies of other countries may get involved in the investigation depending on the circumstances.
282. The support by INTERPOL within the framework of the CBRN prevention program can provide forensic expertise on the ground through the IRT. The

IRT integrates with the local law enforcement authorities and facilitates use of the resources available at the INTERPOL General Secretariat.

283. The only international investigative mechanism in case of allegations of use of biological weapons is implemented by the UN Secretary-General. The BWC itself has no mechanism for investigating alleged breaches; it provides however that a State Party that believes another States Party is in breach of the convention can lodge a complaint with the Security Council, which will then investigate the complaint. The Secretary-General's Mechanism for the investigation of the alleged use of chemical, biological or toxin weapons (SGM) was established during the 1980s and empowers the Secretary-General in response to a request by a UN Member State to initiate under his authority an investigation of alleged use of biological weapons.
284. The procedures and expert roster for the SGM Mechanism have recently been updated, and training has been provided to the experts. There is thus an operational international investigation mechanism in place that could also be used in response to terrorist BW attacks. WHO renders technical support to the UN Secretary-General in these investigations, and details about that have been set out in 2011 in a MoU between WHO and the United Nations. Although the OIE has not yet signed a similar MoU with the UN, collaboration has been established and in the case of investigation of an alleged use of a biological weapon with an animal pathogen the OIE may provide experts to support the SGM.
285. Experience from incidents other than biological agents releases have shown that there is potential tension between the needs (and procedures) used by first responders and the requirements of organizations involved with the investigation of the crime scene. This is why working contacts and discussions of protocols and procedures between organizations with responsibility in the response area (WHO, FAO, OIE) and law enforcement (INTERPOL) as well as investigation mechanisms (UNODA) are so important.
286. There is a continuing need to work on the interoperability of the procedures adopted, to train the investigation experts, and to conduct exercise to test and improve these procedures in realistic environments

Recovery

287. Assistance and advice regarding the recovery after a biological incident is part of the programmes implemented, within their respective areas of competence, by the WHO, FAO and OIE. These processes are utilized with regard to the recovery after naturally occurring disease outbreaks. They should be further strengthened but otherwise there do not appear to be additional requirements to establish responsibilities or mechanisms at the international level in response to recovery needs caused by terrorist threats involving biological agents.
288. In addition, BWC States Parties have the option of using the ISU/BWC as a conduit to provide assistance to other States Parties with regard to recovery to normal after the use of biological weapons against them.

5.3: Public information and information sharing following a terrorist attack using chemical or biological weapons or materials

289. A terrorist attack using chemical or biological weapons or materials will result in very intense media interest, and the pressure on organizations and individuals that are perceived to have information will be very high. The nature of a chemical or biological terrorist attack can cause panic and fear among the public, further increasing the demands for information.
290. Given the nature of their expertise, the OPCW, UNODA and WHO and, in the case of animal disease or zoonoses, OIE and FAO are likely to be asked to provide comments and assessments on what has taken place. This may happen irrespective of whether they are involved in an investigation or any other actions following the attack. It is also likely that the Secretary-General will turn to these specialized agencies for their assessment of the situation. If any agency is directly involved in the response to a terrorist attack, the pressure to provide substantive information will increase. There will also be an expectation of a political response from the Secretary-General and other higher UN officials and heads of agencies.
291. Public information response should be immediate. Any information released should be accurate, seek to correct misinformation, dispel rumours and be technically correct. The information provided should respond to the queries of the media. The level of detail that can be provided will be determined by the media and public affairs policy of the respective agencies. This limitation will very likely conflict with the request for information from media.
292. In a situation with high pressure from the media, it will be essential to coordinate the media response to ensure that all concerned “speaks with one voice”. To achieve this, effective coordination is required between the concerned agencies to ensure that they all know what is to be said/has been said. The coordination required cannot be established once a chemical or biological terrorist attack takes place but should be agreed to and set up in advance. It should be reviewed from time to time and ready to be activated in time of crisis.
293. The coordination of the information dissemination could be through a crisis communication group the composition of which should be agreed in advance for a number of likely scenarios. The lead for a specific incident could be with the key agency involved, and DPI would have a critical role in providing overall guidance and coordination.
294. Different from the public information that will be provided is the need to keep all involved agencies, and the UN Secretary-General, informed of ongoing investigations and other activities triggered by the terrorist attack. Lack of such information could lead to actions taken and decisions made based on incomplete and outdated information.
295. It should be recognized that there are limitations with regard to the information that can be released from an ongoing criminal investigation when building a criminal case. Evidence collected in the course of such an investigation would only be presented at the time of the prosecution and would also at that stage not be public.

VI. Recommendations and next steps¹⁵

296. The following recommendations address prevention and preparedness, as well as the actions of UN and other international entities in response to terrorist attacks using chemical or biological weapons.

Recommendation 1: UN and other international entities that provide technical assistance to States in the prevention of and preparedness for chemical and biological terrorism should more effectively share information and experiences so as to ensure that the technical assistance provided by them is tailored to the needs and circumstances of the States receiving them. This is important so as to ensure a systematic approach towards needs assessment of States (who are the primary responders to terrorist attacks using chemical or biological weapons).

297. A systematic needs assessment is essential to tailor technical assistance to the conditions and needs of a country. Experience of many providers of technical assistance has shown that both effectiveness and the creation of ownership in the recipient country depend critically on proper needs assessment and the tailoring of technical assistance to the prevailing conditions in the country.
298. To achieve this, a better sharing of experience between the different organizations and agencies would be beneficial. This would help identify and spread best practices in strengthening national and regional capacities. While communication and coordination between the organizations and agencies implementing such technical assistance projects are important, ultimately the political and legislative context of the State and its economic conditions will determine the success of the implementation process.
299. It is also very important to ensure proper coordination of the efforts of UN and other international organizations and agencies in the area of technical assistance

¹⁵ These recommendations remain preliminary. It will be necessary for the Working Group to review all aspects of preparedness for, prevention of and response to a chemical or biological terrorism attack in a broader, holistic CBRN approach—a process that will continue after the production of the report. When preparing these recommendations, it was recognized that a large number of UN and other international entities have mandates and undertake activities in the area of prevention of, preparedness for and response to possible terrorist attacks with chemical or biological weapons or materials. There is no single lead agency that bears overall responsibility for the response to these threats at the international level. Instead, there is a patchwork of interlocking responsibilities. Activities of UN and other international entities are complementary and no one agency can claim overall responsibility for either chemical or biological terrorism preparedness and response. Interagency coordination is therefore of the utmost importance.

with those States that implement their own outreach programmes, as well as with relevant NGOs active in the field.

Recommendation 2: Measures to develop and enhance preparedness against chemical and biological weapons use by terrorists should be pursued in a broader CBRN context. At the same time, preparedness must address the entire spectrum of chemical and biological risk factors, from naturally occurring diseases to chemical or biological accidents to deliberate releases including by criminals and terrorists. Such a holistic approach calls for better coordination and information sharing among the organisations and agencies involved.

300. Technical assistance to enhance the preparedness of States to respond to chemical or biological terrorism must be embedded into a broader, integrated CBRN risk mitigation approach. **Developing such a more holistic approach requires better coordination and information sharing between the organizations and agencies involved.** There needs to be awareness and knowledge of the different specific institutional mandates, mechanisms and capacities that are relevant in the context of responding to chemical and biological terrorism.
301. At the same time, organizations and agencies need to ensure that their sectoral activities (in the areas of preparedness with regard to chemical weapons, biological weapons, transportation security, etc.) are conducted in recognition of the broader picture of CBRN risk mitigation.
302. **With regard to chemical terrorism threats, there is a need to develop further the concept of “chemical security”.** The OPCW has made headway in this regard, as part of its efforts to assist States Parties of the CWC in implementing their requirements, but more needs to be done. Future OPCW activities in this field should be coordinated with State programmes to raise awareness and promote experiences in the area of chemical security and with industry initiatives in that field. The experiences gathered in the fields of nuclear as well as biological safety and security could be relevant in this regard and should be carefully studied, and lessons learned applied.
303. Activities in the field of biosafety and biosecurity have been undertaken in the context of the BWC intersessional processes between the Sixth and Seventh Review Conference. A number of UN and other international entities have put in place relevant programmes or supported exchanges among States about these issues (WHO, FAO, OIE, ISU/BWC). These activities should continue. More and deeper interaction will be needed with the industry and with technical and scientific organizations that work in the field of biosafety.
304. Measures to enhance transportation security have been adopted for all transportation modes. It is now important that these be coordinated with and supported by other actors, in particular with organizations that have specific competence with regard to chemical or biological weapons and materials, protection against their effects, risk assessment and incident response.

Recommendation 3: Organizations providing legal assistance with regard to the adoption and national application of instruments relevant to countering chemical and biological terrorism (including IMO, ISU/BWC, OIE, OPCW and UNODC) should enhance their coordination and information sharing. CTITF could facilitate the institutionaliza-

tion of a platform for regular exchanges between these organizations about their activities, assessments, results and plans.

305. It would be highly desirable to synchronize assistance efforts, to the extent possible, between the different UN and other international entities, as well as other actors including States with outreach and legal assistance programmes and NGOs that are providing legislative assistance, to ensure effective use of the limited resources and to bolster States' implementation efforts. That would also allow synchronizing legislative assistance with technical capacity-building measures including equipment donations and training.
306. One step towards better coordination could be the commissioning of a **comprehensive survey to map out more precisely which international norms are in force that are directly relevant to the prevention of chemical and biological terrorism, and which organizations are involved in developing guidelines and technical assistance for their national enactment and enforcement.** CTITF could coordinate a mapping exercise accordingly. The 1540 Committee includes an annex of such standards and guidance in its 2008 and 2011 report to the Security Council that could be used as a reference point for the survey.
307. In terms of coordination of legal assistance activities, it would be desirable to share plans for implementation support as well as results. Sharing future implementation goals and procedures will promote further discussion about best practices and assistance efforts. Sharing information about results will enable a better needs assessment and gap analysis, and help States as well as international organizations improve their planning of future legal assistance activities where needed. To facilitate this, a **dedicated web page could be set up and included in the CTITF website, or occasional meetings could be organized to share experiences, information and planning data.**

Recommendation 4: Technical assistance programmes to prepare for and prevent terrorist attacks involving the use of chemical or biological weapons should take a stronger regional approach so as to increase effectiveness, impact and sustainability.

308. The building of regional capacity is important in several ways: it is a more effective way of capacity-building; it promotes ownership in the region or subregion and thus makes solutions sustainable; and it helps create subregional and regional networks and connections. These connections are essential in crisis management situations when there is not time to establish relationships, and when the effectiveness and speed of a response depends on how well the different actors know and understand each others' requirements and protocols. Such networking also makes it possible in critical situations to access relevant technical information repositories within a region or internationally. In the case of a chemical or biological attack, that may be of crucial importance.
309. UN and other international entities should therefore make additional efforts to promote regional and subregional activities and capacities to strengthen prevention and preparedness, and to enhance interaction and information exchanges (long and short term). To this end, UN and other international entities should **network with relevant regional agencies and organizations and participate in and support regional projects aimed at enhancing preparedness and**

response capacity with regard to chemical and biological terrorism threats.

One new opportunity in this regard is the establishment of regional CBRN Centres of Excellence by UNICRI in collaboration with the EU. UN and other international organizations and agencies should support this process with access to expertise and information sharing, and other practical measures within their mandates. In other regions, UNODA and the 1540 Committee work with the Inter-American Committee on Counter-Terrorism (CICTE) of the Organization of American States (OAS) on these issues, including working with individual member states of the OAS.

Recommendation 5: The UNDAC mechanism should be formally adopted (and arrangements should be made accordingly involving OPCW, WHO, INTERPOL and OCHA) for the coordination of relief efforts arising from the use of chemical or biological weapons that have the potential of resulting in large numbers of casualties.

310. The UNDAC mechanism is an important existing mechanism that could be applied as a coordination mechanism in incident scenarios with mass casualties resulting from the use of chemical or biological weapons. In such scenarios, it is likely that multiple organizations and agencies (international, regional and national) respond to the incident, and operational coordination and information sharing become critically important. The UNDAC mechanism has been tested by the OPCW and OCHA in several exercises simulating the coordination of relief efforts in response to situations involving the use of chemical weapons.
311. With the exception of OCHA and UN DSS, none of the organizations and agencies involved in this survey is formally part of the UNDAC mechanism. **The organizations and agencies that have a mandate with regard to the response to chemical or biological attacks (such as OPCW, SGM/UNODA, INTERPOL and WHO) should review whether there are benefits for their operations if they became a formal member of the mechanism.**
312. At the same time, it is important that States that call for assistance after a chemical or biological incident have realistic expectations about what exactly the international organizations can contribute to the incident response. A careful **interagency study should be conducted to ensure that realistic assumptions are made on the role of INTERPOL, OPCW, SGM/UNODA, WHO and UNOCHA/UNDAC in the response to a terrorist attack involving chemical or biological agents.**

Recommendation 6: There is a need for better coordination and joint programming between relevant organizations with regard to the organization of training and exercises to respond to terrorist uses of chemical or biological weapons at the international level.

313. Preparedness for chemical or biological terrorism depends on the readiness of the responders, the effectiveness of their procedures and availability of the right equipment, effective communications and information sharing, and a high degree of interoperability. This is why it is so important to intensify activities with regard to training and exercises, to improve coordination between them, and to encourage joint exercises. More should be done to bring the different organizations and agencies that have a role in the response to chemical or biological terrorism

attacks together in joint exercises. Training and exercises have been conducted in recent years at national and regional levels but these types of activities do not reach out to all countries that are potentially at risk. **There should be more multilateral, interagency exercises to prepare for a possible act of chemical or biological terrorism.**

314. Future activities in this field could benefit from developing a broader range of different types of exercising (table tops, communications exercises, field exercises), to address issues in a more comprehensive manner and make exercises more cost-effective and frequent.
315. In all such exercises, it is important to **use realistic scenarios for a terrorist attack using chemical or biological weapons or materials.** For example, in case of a chemical terrorist attack, the response of the OPCW and other entities involved would usually be triggered following the attack, which would set requirements rather different from a scenario where there is an expectation of follow on chemical attacks and assistance teams have already been dispatched.
316. It is also important to include in these activities **training in recognizing the characteristics of terrorist attacks using chemical or biological weapons or materials.** Among the many possible scenarios of a chemical or biological terrorist attack, there is the clandestine release of an agent. Those first to come into contact with victims (often personnel of the public health system or law enforcement officials) should be alert to the possibility that a chemical or biological agent might be the cause of a situation, and take measures to follow up if there are indications that this may indeed be the case.
317. A particular area that requires a clear definition of responsibilities and roles in a crisis situation caused by a chemical or biological terrorist attack is the implementation of an effective public information strategy, and the management of the relationship with the media. Sharing of experience in preparations of media relations during crisis management is important but there should also be a clear understanding between all entities concerned about their respective protocols for engaging with the media, their information policies and their role on the overall public information context.

Recommendation 7: As the existing systems for disease surveillance and early warning of disease outbreaks are being further enhanced, the coordination between the different systems in place with regard to human, animal and plant disease surveillance and system in place to protect the food chain should be made more accessible to relevant UN and other international entities.

318. It is important to continue to strengthen the existing early warning and disease surveillance systems, within the context of early warning and disease surveillance activities regarding any sort of disease outbreak, whether natural or caused by a deliberate release. WHO should continue its advice to public health services that cases of chemical poisoning or infection could be the result of malicious attack, and that this possibility should be assessed early on. UN and other international entities that provide technical assistance to States to enable them quickly and accurately to detect outbreaks and identify the agents involved must continue with their technical assistance programmes. The current tripartite

response system for joint disease emergencies ensures international preparedness for epidemics as well as bioterrorism attacks and provides for timely and coordinated assistance to countries experiencing them. **WHO, FAO and OIE should continue to enhance the coordination of their response systems to disease outbreaks.**

319. The possible use of plants as weapons (economic or food security “weapons”) needs to be addressed urgently. With regard to natural events or accidents, FAO deals with issues such as awareness raising, coordination and cooperation, and capacity-building as part of its mandate in the context of monitoring, diagnostics, reporting and emergency response management. But FAO’s mandate does not extend to deliberate releases. The IPPC provides the regulatory and technical framework (new transboundary pests) in which much of this work can be undertaken.
320. A complementary issue is that organizations and agencies that respond to terrorist incidents must be aware of the possibility that chemical or biological agents could be involved, and treat any terrorist attack as a potential chemical or biological attack. **Law enforcement agencies therefore need to intensify their working relationships with competent agencies that have knowledge about chemical or biological weapons. Arrangements should be made to provide access when needed to technical expertise and advice** on these agents, their properties and recommended countermeasures.
321. With regard to chemical terrorism incidents, the OPCW is a centre of knowledge and expertise. It has in the past 15 years had a strong focus on issues related to the elimination of chemical weapons stockpiles. The OPCW has taken a broader view on chemical security threats, extended its expertise to other types of chemical agents (in particular, toxic industrial chemicals) and enhanced its capacity to support first responders with expertise and knowledge involving such non-traditional agents. **To this end, the OPCW should coordinate its future projects in the area of chemical security with other relevant partners at the international and regional levels, including with regard to agencies working in the areas of law enforcement (INTERPOL, UNICRI) and transportation security (ECOSOC Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals, ICAO, IMO).**

Recommendation 8: Develop or enhance the working relationship between INTERPOL, organizations that have mandates to investigate alleged uses of chemical or biological weapons (OPCW, UNODA), organizations with mandates in the response to incidents involving such weapons (OPCW, OCHA) and organizations that as a part of their mandate in public or animal health will have a role (WHO, FAO, OIE).

322. Given the complexities involved in the response to a chemical or biological terrorism incident, it is important that the interaction between the different UN and international organizations is clarified well in advance of a crisis. The relationship between measures to save lives carried out by the first responders and the criminal investigation conducted by the law enforcement authorities must be clearly defined and understood by all actors to avoid conflict.

323. To this end, it is important to foster working contacts and discussions of protocols and procedures between organizations with responsibility in the response area (WHO, FAO, OIE, OPCW) and law enforcement (INTERPOL) as well as investigation bodies (UNODA, OPCW). There is also a continuing need to work on the interoperability of procedures, to train investigation experts, and to conduct exercise to test and improve these procedures in realistic environments.
324. Such contacts and discussions should also enable better sharing of information between international organizations during ongoing investigations when investigation and assistance teams are being deployed.
325. The relationship between law enforcement and animal as well as food chain protection appears to be less structured than with regard to human diseases, and has more of an ad hoc character. It would be desirable to **develop a more formalized coordination mechanism at the international level with regard to the interface between animal health/food chain security and law enforcement organizations, similar to the public health–law enforcement interface.**
- Recommendation 9: Develop concepts and/or strengthen technical assistance and advice with regard to decontamination in urban areas, medical treatment and recovery after a terrorist attack involving chemical or biological weapons.*
326. The study showed that there remain a number of gaps in the existing network of international coordination and assistance mechanisms that should be addressed. This will require a coordinated effort by those organizations and agencies that have technical competence in these areas.
327. For example, there is limited understanding of issues related to the decontamination in urban areas (large concentration of people, residential buildings and structures, a complex mix of materials and surfaces, access problems) should larger amounts of chemical or biological agents be released there. There also is a fairly limited international capacity to provide assistance and technical advice to States should they request such support during a crisis.
328. It may be useful if organizations such as the OPCW and WHO, that have technical competence in this field and/or access to scientific and technical institutions in States that work on these issues, would **study whether international guidance or technical reference material could be developed, validated with competent institutions of interested States, and made available to States that so request.**
329. Secondly, both OPCW and WHO, as part of their role in the response to a chemical or biological terrorist attack, facilitate access to medical advice and assistance. They also can coordinate practical assistance among States, for example, in the form of treatments, access to medical facilities or even the deployment of field medical units and/or facilities after an incident, should that be requested.
330. There are other organizations and institutions (regional organizations, States on the basis of bilateral and regional arrangements, *Médecine sans Frontière*, the ICRC and others) that have overlapping or similar mandates and capabilities. These organizations may be aware of the specifics of treatment requirements after exposure to chemical or biological agents, but this is certainly not their focus of work.

331. It would be desirable to **develop and/or strengthen informal operational relationships between the specialized organizations dealing specifically with chemical and biological weapons threats (OPCW, WHO, OIE, UNODA, ISU/BWC) and organizations that are involved on a daily basis in the provision of medical/veterinary treatment and advice in countries that lack capacity of their public health and animal health systems.**
332. Another conclusion is that there is fairly limited capacity to support longer-term recovery after such attacks. WHO, FAO and OIE have measures in place to support long-term recovery after natural disease outbreaks—these measures could also be used after terrorist attacks involving chemical or biological agents. But there may also be aspects of the recovery after a chemical or biological terrorist attack that require a different approach. With regard to assistance implemented by the OPCW, the focus is predominantly on the response part and longer-term assistance during the recovery phase is not explicitly part of the responsibilities and capabilities of that organization.

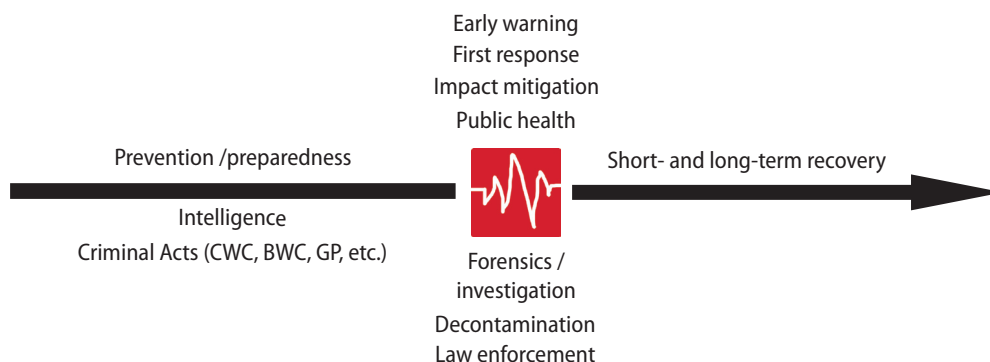
Recommendation 10: Better preparation and coordination of managing public information in crisis situations caused by chemical or biological terrorism attacks.

333. Managing public information is a challenge in any crisis management situation. In the case of a chemical or biological terrorist attack, there are additional complexities: a large number of actors with responsibilities and mandate that are not actually at the incident scene but that are generally expected to have answers; the technical complexities involved in these types of incidents; the lack of a single operational control function at the international level—to mention but a few.
334. It would therefore be necessary to review ways to ensure that critical information is shared in a timely manner between concerned agencies and to explore how effective coordination can be achieved at the international level.
335. To achieve this, it is important to **have an information sharing and coordination mechanism in place in the form of a crisis communications group, to agree on its modalities in advance and to review its operation from time to time so that, in times of crisis, it can be activated without delay and continue to function smoothly throughout the crisis.**

Annex 1

Matrices summarizing and mapping the contributions by the organizations in all three areas (CW and BW preparedness/prevention, CW response, BW response)

The following graphic illustrates the different elements in the chain from prevention and preparedness to the response to an incident involving the deliberate release of a chemical or biological agent, to recovery measures after the incident.



These elements have been reflected in the subsequent three matrices to summarize and map the contributions of each UN and other international entity covered in this survey.

Matrix 1: Prevention and preparedness with regard to chemical and biological terrorist attacks

Mandates/ organization	Laws and standard setting at international level	Assistance with national legislation and regulations	Institution building support	Training and exercises
FAO	Codex Alimentarius, International Plant Protection Convention	Assistance and advice through the FAO Development Law Service	Technical and operational assistance to help governments develop and implement immediate solutions to prevent or stop disease spread FAO provides assessments, advice, assistance and supports disease diagnosis	A range of capacity development training; Emergency animal disease simulation exercises and promotion of good emergency management practice
ICAO	Beijing Instruments Standards and Recommended Practices (SARPs), particularly Annexes 17, 18 and 9 to the Chicago Convention Technical Instructions relating to Annex 18	Security Manual Implementation Support and Development Programmes (ISD)	Universal Security Audit Programme Short-term/urgent security-related assistance to States as well as longer-term project assistance ISD Machine Readable Travel Documents (MRTD)	Aviation Security Training Packages and training centres Dangerous Goods Training Programme (FIATA) Training Programme relating to communicable diseases

Mandates/ organization	Laws and standard setting at international level	Assistance with national legislation and regulations	Institution building support	Training and exercises
IMO	SOLAS and ISPS Code	Assistance and advice through the Integrated Technical Cooperation Program to help States meet their obligations under various international treaties		Global Programme on Maritime Security with country advisory missions, regional and national seminars and workshops as well as training courses; maritime security "train-the-trainer" programme
INTERPOL			Support to local law enforcement authorities through the CBRN Terrorism Prevention Program Online bioterrorism prevention resource centre, biocrimes database	Extensive training programme for law enforcement officers, international table-top exercises, bioterrorism incident pre-planning and response guide, fellowship programme
ISU/BWC	BWC, Common understandings of the BWC States Parties	Entry point for States that require advice and assistance for development of national implementing legislation for the BWC National Implementation Database Compendiums of National Approaches EUJA: legislative assistance	ISU/BWC facilitates networking, provides access to competent institutions and organizations and information sources	EUJA: States Parties can request to organize awareness-raising meetings or training to support national implementation of the BWC
OIE	Two codes (Terrestrial and Aquatic) and two manuals (Terrestrial and Aquatic) as the principle reference for WTO members	Global studies PVS process (evaluation of veterinary system, gap analysis, specific capacity-building activities) Legislative support	OIE Quality Standard and Guidelines for Veterinary Laboratories Laboratory twinning process Establishment of vaccine banks Regional capacity-building measures to strengthen animal disease surveillance and control, early outbreak detection and rapid response	Laboratory twinning process
OPCW	CWC Decision-making by CSP on CWC implementation guidelines	Assistance for development of national implementing legislation for the CWC	Training and support to national authorities: Support to networking through regional initiatives and establishment of regional CoEs Annual meetings for all national authorities to promote exchange of experience and information	International, regional and national training on protection against chemical weapons Technical Assistance Visits (TAVs) Assistance exercises (table tops, field exercises, ASSISTEX)
ECOSOC Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals	Model Regulations on the Transport of Dangerous Goods including special security provisions with regard to "high-consequence dangerous goods"			

Mandates/ organization	Laws and standard setting at international level	Assistance with national legislation and regulations	Institution building support	Training and exercises
UNICRI		CBRN guidelines to improve national policies Planned: capacity-building projects in framework of CoE	National focal points and national teams for CBRN risk mitigation; enhancing coordination and liaison between different actors at national level Regional CBRN risk mitigation networks (KMS, CoE)	Planned: training activities and exercises in the framework of CoE
UNODA			Regional and subregional capacity-building workshops promoting the full implementation of resolution 1540.	Support training of experts for the participation in investigations under the SGM
1540 Committee	UN Security Council resolution 1540 (2004) obliges countries to take a wide range of measures meant to combat the proliferation of nuclear, chemical and biological weapons and their means of delivery to non-state actors.	The 1540 Committee has a clearing house and match-making role for assistance in this area. It also provides a matrix of measures taken by states that states can use to address their risk related to proliferation of CBRN to non-state actors.	It produces an annex of existing international standards and guidance related to CBRN proliferation. In addition, states are called upon to provide points of contact.	
UNODC		Legislation assistance for counter-terrorism legislation		
WHO	IHR 2005 requiring countries to strengthen their existing capacities for public health surveillance and response	CBRN self-assessment tool to help countries assess their national capacities to manage the health risks of the deliberate release of chemical, biological and radiological agents	Technical guidance and support to mobilize the resources needed to implement IHR 2005 (National IHR Focal Point, need to maintain core national public health capacities)	

Matrix 2: Response in case of a chemical terrorist attack (including toxins)

Mandates/ Organisation	Early warning / identification of nature of threat	Assistance for incident response	Forensics	Decontamination	Assistance for other remedial measures
FAO	INFOSAN, reporting and exchange of information on food safety issues				
INTERPOL	Sharing of critical criminal intelligence in relation to threats of chemical terrorist attacks	Deployment of an IRT to provide investigative and analytical support Guidelines for best practices, expert advice	Support collection of forensic evidence on site through the ITR Support analysis of samples taken at forensic laboratories		
OCHA/UNDAC		Establishment of an OSOCC. Coordination of relief and assistance measures			
OPCW	No early warning but ACAT can play role in identifying nature of an event	CWC mechanism for responding to a request for assistance and deploying the IAU team and ACAT on short notice Providing emergency assistance Mobilization of States Parties assistance offers	The IAU team will collect information on the chemical weapon(s) used in the terrorist attack Training of analytical chemists	Assistance on site by CWC States Parties through OPCW	Advice and assistance for long-term medical care (<i>CWC States Parties offers of assistance</i>)

Mandates/ Organisation	Early warning / identifica- tion of nature of threat	Assistance for incident response	Forensics	Decontamination	Assistance for other reme- dial measures
UNDSS		Provide leadership, operational support and oversight to ensure the safe operations of international teams			
UNICRI	CoE/KMS facilitate sharing of information at national and regional levels	CoE/KMS facilitate coordination of law enforcement and other agencies at regional level			
UNODA		Support SGM investigation of alleged use by terrorists of CW	Collect information on the nature of the chemical terrorist attack		
WHO	GOARN, participation in GLEWS, IHR 2005: countries must adhere to reporting requirements and verification of public health events INFOSAN, reporting and exchange of information on food safety issues	WHO manages public health consequences and communicates real-time public health risk assessments and recommendations to countries	Technical support to UN and the wider international community in the investigations of alleged use of CW		

Matrix 3: Response in case of a biological terrorist attack

Mandates/ Organisation	Early warning / identifica- tion of nature of threat	Assistance for incident response	Forensics	Decontamination	Assistance for other reme- dial measures
FAO	GLEWS Emergency Prevention Systems (EMPRES) Participation in INFOSAN, reporting and exchange of information on food safety issues	GF-TADs Crisis Management Centre—Animal Health (CMC-AH) Rapid deployment team to provide assessments, advice, assistance and support disease diagnosis Food Chain Crisis—Emergency Management Unit (FCC-EMU)	FAO supports disease diagnosis; sample shipment service		GF-TADs: Technical Cooperation Projects for recovery
INTERPOL	Sharing of critical criminal intelligence in relation to threats of biological terrorist attacks	Deployment of an IRT to provide investigative and analytical support Guidelines for best practices, expert advice	Support collection of forensic evidence on-site through the ITR Support analysis of samples taken at forensic laboratories		
ISU/BWC		ISU can facilitate contacts between BWC States Parties to provide assistance	ISU/BWC can facilitate contacts between BWC States Parties to support forensic investigations	ISU/BWC can facilitate contacts between BWC States Parties to provide assistance for BW decontamination	ISU/BWC can facilitate contacts between BWC States Parties to provide assistance for longer-term remedial measures

Mandates/ Organisation	Early warning / identifica- tion of nature of threat	Assistance for incident response	Forensics	Decontamination	Assistance for other reme- dial measures
OIE	Disease outbreak report- ing by OIE Member States through World Animal Health Informa- tion System (WAHIS) GLEWS	Early detection and support for control through network of OIE Reference Centres GF-TADs Participation in FAO CMC-AH	OIE Quality Standard and Guidelines for Vet- erinary Laboratories		GF-TADs
UNDSS		Provide leadership, operational support and oversight to ensure the safe operations of international teams			
UNICRI	CoE/KMS facilitate sharing of information at national and regional level	CoE/KMS facilitate coordination of law enforcement and other agencies at regional level			
UNODA		Support SGM investiga- tion of alleged use by terrorists of BW	Collect information on the nature of the bio- logical terrorist attack		
WHO	GOARN, participation in GLEWS, global Event Management System for public health event- based information management INFOSAN, reporting and exchange of information on food safety issues	WHO manages public health consequences and communicates real-time public health risk assessments and recommendations to countries	Technical support to UN and the wider interna- tional community in the investigations of alleged use of BW		

Annex 2

Report Contributors

1. Primary contributors

CTITF Office

Per Runn (*consultant*)
 Ralf Trapp (*consultant*)
 Anne Wu

FAO

Ian Douglas

ICAO

Jiefang Huang

IMO

Patricia Charlebois

IAEA

Rafael Martincic

INTERPOL

Mitchell Stern

ISU/BWC

Richard Lennane

OIE

Keith Hamilton

OPCW

Krzysztof Paturej
 (*Co-Chair of the Working Group on WMD*)

Santiago Oñate Laborde

Julian Tangaere

Gennadi Lutay

Cristina Rodrigues

UNDPI

Hiro Ueki

UNDSS

Corrine Heraud

UNICRI

Andrew Prosser

Katie Smallwood

UNODA

Gabriele Kraatz-Wadzack

Nikita Smidowich

Franz Kolar

UNODC

Maria Lorenzo-Sobrado

WHO

Maurizio Barbesci

Nicolas Isla

2. Other entities that submitted comments on the report

1540 Committee Expert Staff

Richard Cupitt

ECOSOC Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals
 Olivier Kervella

DPKO

Andrew Carpenter

OCHA

Dina Abou Samra

Jesper Lund

UNDP

Njoya Tikum

WCO

Norbert Steilen

ENDNOTE

Members of the CTITF Working Group on Preventing and Responding to WMD Terrorist Attacks

- International Atomic Energy Agency (IAEA) (lead)
- Organisation for the Prohibition of Chemical Weapons (OPCW) (co-chair)
- Office for Disarmament Affairs (ODA)
- United Nations Interregional Crime and Justice Research Institute (UNICRI)
- World Health Organization (WHO)
- Expert Staff of the 1540 Committee
- International Criminal Police Organization (INTERPOL)
- United Nations Development Programme (UNDP)
- Department of Public Information (DPI)
- Department of Security and Safety (DSS)
- International Maritime Organization (IMO)
- United Nations Office on Drugs and Crime (UNODC)
- International Civil Aviation Organization (ICAO)

Additional Partners (Observers):

- United Nations Office for the Coordination of Humanitarian Affairs (OCHA)