PROPOSAL OF AN INNOVATIVE INTERNATIONAL TRAINING CURRICULUM FOR ADVISORS IN EMERGENCIES AND CBRNE EVENTS

Andrea Gloria, Major

Former Student
International Master Courses in «Protection Against CBRNe events»

NATO School Oberammergau
Germany

Contacts:
Gloria.Andrea@natoschool.nato.int

Proposal of an innovative International training curriculum for advisors

2nd International CBRNe Workshop “IW CBRNe 2015”
AGENDA

- Introduction
- Aim of the project
- Structure
- Target Audience
- Modules
- Business Plan
- Conclusions
INTRODUCTION

**Complex emergencies** are usually associated with

- Extensive destruction of property
- Massive displacements of people
- Increase in morbidity
- Increase in mortality
- Potential disease outbreaks
- Toxic Industrial Materials (TIM) release

Emergencies and disasters can be associated with CBRNe events and **it is extremely difficult to identify a complete list of all possible scenarios.**

**A complete knowledge of all aspects of emergencies is fundamental.** Under the meaning of emergencies and CBRNe events management there are several possible effects and consequences that decision makers very often do not know.
INTRODUCTION

Emergency preparedness requires attention not just for specific threats but any type of hazard have to be considered. An all hazard approach, that includes all types of threat irrespective of its origination, is the most effective.

Wrong decisions can have bad consequences in the effectiveness of field relief operations.

Extreme events require high-qualified experts to intervene quickly, directly as first responders, or indirectly as advisors to decision makers.
AIM OF THE PROJECT

This proposal is aimed at creating an international training curriculum for the effective management of all kinds of emergencies (included CBRNe events).

In particular, the aim is to prepare Subject Matter Experts (SMEs) at national and international level as advisors that could support decision makers in their strategic decisions increasing the effectiveness for a prompt response to emergencies and disasters.
STRUCTURE

The curriculum is structured in different modules aimed to specific aspects of the management of emergencies.

The modules should be supported (hosted in different EU locations) by International Organizations that are responsible and officially recognized as key players and reference points for the management of specific aspects related to the emergencies:

- United Nations (UN) and UN agencies (UNOCHA/WHO/UNICRI/BWC-ISU)
- European Union (EU) and EU agencies (ERCC, ECDC)
- Organization for Security and Cooperation in Europe (OSCE)
- North Atlantic Treaty Organization (NATO) and NATO bodies
- OPCW/IAEA/EURATOM/(E)NEA/INTERPOL (…)
STRUCTURE

The modules are developed taking into account a **different Depth of Knowledge** (DOK) for a **progression in the learning**.

- **Basic initial conceptual knowledge** (Mod.1)
- **Intermediate level of comprehension** (Mod.2-7)
- **Advanced skills and competences knowledge level to solve complex problems** (Mod.8)
TARGET AUDIENCE (TA)

The TA for this curriculum is **Emergencies Management professionals** including:

- National Civil Protection Department
- Fire Fighting Department,
- Ministry of Foreign Affairs,
- Ministry of Defense and subordinate military headquarters, units or agencies,
- National and International Civil Organizations,
- Research Institutes
- Private Companies
Every module has a **standard structure** characterized by

- the **depth of knowledge**
- the **aim** of the module
- characteristics of the **target audience**
- student **pre-requisites and assessment**
- the **methodology**
- the **learning objectives and main teaching points**
Module 1 - FUNDAMENTALS OF EMERGENCIES, DISASTERS AND CBRNe EVENTS MANAGEMENT (E-LEARNING)

The aim of the module is to provide the student with basic concepts for the management of emergencies, disasters and CBRNe events.

This individual study of documents facilitates the development of schemas and mental models the students use to organize and simplify their knowledge and classify concepts and notions.

These conceptual structures help students to fill in the gaps to get a comprehensive and well-organized educational background and a common level of knowledge on these specific aspects to attend further modules of the curriculum.
**Module 1 - Fundamentals of Emergencies, Disasters and CBRNe Events Management (E-Learning)**

The **aim** of the module is to provide the student with basic concepts for the management of emergencies, disasters and CBRNe events.

This individual study of documents facilitates the **development of schemas and mental models** the students use to organize and simplify their knowledge and classify concepts and notions.

**These conceptual structures help students to fill in the gaps to get a comprehensive and well-organized educational background and a common level of knowledge** on these specific aspects to attend further modules of the curriculum.
Module 2 - INTERNATIONAL COOPERATION FOR EMERGENCIES AND DISASTERS PREPAREDNESS AND MANAGEMENT

The aim of the module is to provide the student with all aspects of the emergencies and disasters preparedness planning and management in the context of the international cooperation activities and initiatives.
Module 3 – CBRNE EVENTS MANAGEMENT

The **aim** of the module is to provide the student with main and common aspects of CBRNe events preparedness and management in the context of the international cooperation activities and initiatives.

The **specific aspects of CBRN scenarios are the focus of modules 4 (CHEM), 5 (BIO) and 6 (RAD-NUC).**
Module 4 – MANAGEMENT OF CHEMICAL RELEASES SCENARIOS

The aim of the module is to provide the student with a comprehensive overview of current and emerging chemical hazard, risks and threats within the context of the international policy, response measures and capabilities to face possible releases of chemical agents.
Module 5 – MANAGEMENT OF OUTBREAKS AND BIOLOGICAL RELEASES SCENARIOS

The aim of the module is to provide the student with a comprehensive overview of current and emerging biological hazard, risks and threats within the context of the international policy, biological response measures and capabilities to face possible biological releases and outbreaks.
Module 6 – MANAGEMENT OF NUCLEAR EVENTS AND RADIOLOGICAL SCENARIOS

The aim of the module is to provide the student with a comprehensive overview of current and emerging nuclear and radiological hazard, risks and threats within the context of the international policy, response measures and capabilities to face possible nuclear events and radiological scenarios.
Module 7 – CRISIS AND EMERGENCY RISK COMMUNICATION

The aim of the module is to highlight, emphasize and teach main aspects on communication, information management, technics and procedures to be taken into consideration and applied during emergencies and CBRNe events.
Module 8 – TABLE TOP EXERCISE FOR EMERGENCIES, DISASTERS AND CBRNE EVENTS MANAGEMENT

The aim of the Table Top Exercise (TTX) is to provide the student different scenarios in order to put into practice notions learned during previous modules and apply technics and procedures for the management of specific aspects and consequences of crisis, emergencies, disasters and CBRNe events, in the context of the international policy and main references.

<table>
<thead>
<tr>
<th>Teaching Point</th>
<th>Method and Time</th>
<th>References and Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to the situation</td>
<td>Interactive lectures (180 Min)</td>
<td>Facilitators’ notes, SITMAN, reference docs</td>
</tr>
<tr>
<td>1. Landslide and mudslide management</td>
<td>Analysis of Exercise Scenario 01 (180 min)</td>
<td>Facilitators’ notes, SITMAN, reference docs</td>
</tr>
<tr>
<td>2. Flood management</td>
<td>Exercise – Scenario 02 (180 min)</td>
<td>Facilitators’ notes, SITMAN, reference docs</td>
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<tr>
<td>3. Earthquake management</td>
<td>Exercise – Scenario 03 (180 min)</td>
<td>Facilitators’ notes, SITMAN, reference docs</td>
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<tr>
<td>4. Accidental TIM release management</td>
<td>Exercise – Scenario 04 (180 min)</td>
<td>Facilitators’ notes, SITMAN, reference docs</td>
</tr>
<tr>
<td>5. Natural outbreaks and epidemic management</td>
<td>Exercise – Scenario 05 (180 min)</td>
<td>Facilitators’ notes, SITMAN, reference docs</td>
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<tr>
<td>6. Sabotage of industrial unit and consequent release of TIM (TIB/TIC/TIR) and management</td>
<td>Exercise – Scenario 06 (180 min)</td>
<td>Facilitators’ notes, SITMAN, reference docs</td>
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<tr>
<td>7. Intentional release of CBR agents management</td>
<td>Exercise – Scenario 07 (180 min)</td>
<td>Facilitators’ notes, SITMAN, reference docs</td>
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<tr>
<td>8. Intentional release of radiological sources (RDDs) management</td>
<td>Exercise – Scenario 08 (180 min)</td>
<td>Facilitators’ notes, SITMAN, reference docs</td>
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<tr>
<td>9. Sabotage in a Nuclear Power Plant (NPP) and consequent fall out and management of exposures</td>
<td>Exercise – Scenario 09 (180 min)</td>
<td>Facilitators’ notes, SITMAN, reference docs</td>
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<tr>
<td>10. Cyber-attack to critical infrastructures and consequent CBRNe events management</td>
<td>Exercise – Scenario 10 (180 min)</td>
<td>Facilitators’ notes, SITMAN, reference docs</td>
</tr>
<tr>
<td>After Action Review and conclusions</td>
<td>Interactive lectures (180 Min)</td>
<td>Facilitators’ notes, Exercise reference docs</td>
</tr>
</tbody>
</table>
THE BUSINESS PLAN

Costs Analysis
Personnel: 1 Associate, 2 Researchers, 90 Speakers, 5 Technicians
Travel / Other Costs / Overhead

Self-Sustainability
To have the self-sustainability of the project, fees have been calculated:

<table>
<thead>
<tr>
<th>Self-Sustainability</th>
<th>20 Students</th>
<th>25 Students</th>
<th>30 Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs Entire Curriculum</td>
<td>11.762,50 €</td>
<td>9.410,00 €</td>
<td>7.841,67 €</td>
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<tr>
<td>Costs Single Modules</td>
<td>1.680,36 €</td>
<td>1.344,29 €</td>
<td>1.120,24 €</td>
</tr>
<tr>
<td>Fee Entire Curriculum</td>
<td>12.000,00 €</td>
<td>10.000 €</td>
<td>8.000,00 €</td>
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<tr>
<td>Fee Single Modules</td>
<td>1.700,00 €</td>
<td>1.400,00 €</td>
<td>1.200,00 €</td>
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Possible External Funding
This proposal could be inserted in a more complex project for the participation in H2020 call DRS-3-2015 Crisis management topic 3: Demonstration activity on large scale disasters and crisis management and resilience of EU external assets against major identified threats or causes of crisis.
CONCLUSIONS

This proposal for an innovative curriculum to prepare high-qualified experts able to intervene quickly as advisors in the management of all kind of emergencies, included CBRN events, represents the commitment to contribute to the international security for a prompt and effective response in case of disasters (H2020).

The curriculum would be a training offer unique in complexity and range of topics covered and, with the support of several International Organizations that are working in the field of emergencies, a real international experience focused on the international techniques and procedures to face extreme, complex and most challenging scenarios.