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Forest Fire Net

Special Issue with the proceedings of the Workshop:

"Human rights in Disasters: Search and Rescue Operations in Disasters especially for vulnerable people"

Athens, 5-6 of November 2009

Forest Fire Net is published by

European Center

for Forest Fires (ECFF)

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Readers comments are welcome and should be addressed to:

stathero@chemeng.ntua.gr

Editors of this Volume:

Milt Statheropoulos

Director

European Center for Forest Fires

Sofia Karma

PhD Chemical Engineer, Research Associate

National Technical University of Athens

Ministry of Citizen Protection

General Secretariat for Civil Protection

2, Evangelistrias St., Athens 105 63, Greece, Tel: +30 210 3359 002-3, +30 213 1510 102-3

http://www.gscp.gr/ggpp/site/home/ws.csp, E-mail: infocivilprotection@gscp.gr

European Center for Forest Fires

(ECFF)

More information available at:

http://www.gscp.gr/ggpp/site/home/independent/ECFF.csp

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Editorial

In general, natural and technological disasters pose a threat on an entire range of human rights. However, the impacts of disasters are not the same for all people. Vulnerable groups, such as people with mobility problems, sight or hearing difficulties are severely exposed and suffer during and after a disaster strikes. Additionally, vulnerable groups usually are not given priority in prevention strategies and search and rescue operations. In many cases, there is a lack of procedures and specialized technologies for protecting vulnerable groups of population in case of a disaster. In an attempt to cope with these problems, the Council of Europe (EUR-OPA), the National Technical University of Athens (NTUA), as coordinator of the FP7 project Second Generation Locator for Urban Search and Rescue operations –"SGL for USaR" and the General Secretary of Civil Protection in Greece (ECFF/GSCP) have joined efforts for reviewing such issues, with the aim of providing ideas on how to use technologies for reducing disasters impacts on vulnerable groups of population. For implementing such an initiative, a workshop was organized entitled *"Human rights in Disasters: Search and Rescue Operations in disasters especially for vulnerable people"*. The main goal was to create a network of people and organizations which will encourage and reinforce research and development of procedures capable of supporting vulnerable groups in case of a natural disaster. Priority was given on addressing hands-on and immediate based issues; operational issues and capabilities of available technologies. Human rights in disasters were overviewed and also experiences and lessons-learned were presented. FFNet Volume 6 is a special volume including the presentations of the workshop, as well as a catalogue of ideas summarized by the participants: rescue teams academics and experts.

Milt Statheropoulos

ECFF Director

Introduction

"Human rights in Disasters: Search and Rescue Operations in disasters especially for vulnerable people"
Athens, 5-6 of November 2009

Council of Europe and Human Rights

Francesc Pla, EUR-OPA Hazards Agreement of the Council of Europe

About the Council of Europe

- Oldest European institution, created in 1949
- 47 member states + observers (Holy See, Canada, Japan, Mexico, U.S.A)
- Headquarters : Strasbourg (northeast of France)

Main aims
- defend human rights, parliamentary democracy and the rule of law,
- develop agreements to standardise social and legal practices,
- promote awareness of European identity,
- assist countries to consolidate political, legal, constitutional reform
- provide know-how in HR, local democracy, education, culture, …

Some practical achievements
- 198 legally binding European treaties or conventions
- Recommendations to governments setting out policy guidelines

How it works
- Committee of Ministers (47 Foreign ministers or their deputies)
- Parliamentary Assembly (636 members from national parliaments).
- Congress of Local and Regional Authorities (2 chambers).
- 1800-strong secretariat [Secretary General : Thorbjørn Jagland (Norway)]

Warsaw Summit (2005) action plan underlines for the coming years:
- promoting values of human rights, the rule of law and democracy;
- strengthening security of European citizens;
- fostering co-operation with other international organisations.

Directorate General of Human Rights and Legal Affairs

Main aims

- to assist and advise on matters pertaining to law and policy in the fields of human rights and the rule of law to the Secretary General, the Committee of Ministers and all its subordinate Committees and, as appropriate, to other Services of the Organisation;
- to elaborate and evaluate legal standards (Recommendations, guidelines, handbooks etc. and draft Conventions) ; STANDARD SETTING
- to provide secretariat support and advice for the Organisation's treaty and related mechanisms in the fields of human rights and the rule of law ; MONITORING
- to implement programmes and activities aimed at fostering the establishment in member or applicant states of an institutional and legal framework in compliance with the principles of a democratic state, and at ensuring the observance of human rights and the rule of law; COOPERATION

Directorate General of Social Cohesion

Main aims

- To assist and advise on matters pertaining to social cohesion (social, disability, health, migration, Roma policies and bioethical standard-setting) to the Secretary General, the Committee of Ministers, and, as appropriate, the other statutory organs of the Organisation;
- To elaborate and promote European standards, policies, practices and tools in the social, disability, health, bioethical, migration and Roma fields,
- To support nondiscrimination and equal opportunities as well as ethnic and cultural diversity, with a view to reducing inequality and building confidence in a common and secure future for all;

Directorate of Education, Culture and Heritage, Youth and Sport

Main aims

- To help to incorporate the principles of human rights, democracy, tolerance and mutual respect, the rule of law and peaceful resolution of conflicts into the daily practice of teaching and learning; EDUCATION
- To promote the enabling power of culture and heritage as a force for democracy in European societies, where the diversity of cultures, the arts, and cultural and natural heritage are essential to the development of a genuine openness of mind and basic rights; CULTURE AND HERITAGE
- To elaborates guidelines, programmes and legal instruments for the development of coherent and effective youth policies at local, national and European levels aiming at the promotion of youth citizenship, youth mobility and the value of human rights, democracy and cultural pluralism; YOUTH AND SPORT

Partial Agreements

Devoted to more specific topics than core activities.
In general, some (but not all) member states participate.

13 Partial Agreements exist within the Council of Europe :

- GRECO (Group of States against Corruption)
- Venice Commission (Democracy through Law)
- North-South Centre (Global Interdependence and Solidarity)
- Social & Public Health (Disabilities, Consumer's Protection)
- European Directorate for the Quality of Medicines
- Pompidou Group (Drug Abuse and Illicit Trafficking on Drugs)
- Council of Europe Development Bank
- European Centre for Modern Languages
- European Audiovisual Observatory
- Eurimages (Co-production and distribution films)
- Sport
- Youth Card (Youth Mobility)
- EUR-OPA (Major Natural and Technological Disasters)

Objectives of the EUR-OPA Agreement

Expressed in the Resolution, signed by the Committee of Ministers of the Council of Europe, creating the Open Partial Agreement in March 1987 :

- Reinforce and **promote co-operation** between member States in a multi-disciplinary context.
- **Ensure better prevention, protection and organisation of relief** in the event of major natural or technological disasters by calling upon resources and knowledge to ensure efficient and interdependent management of major disasters.

Member States of EUR-OPA

Presidency :
Russian Federation
Vice presidencies :
Croatia
France

26 member states :
Albania, Armenia, Azerbaijan, Belgium, Bulgaria, Croatia, Cyprus, France, Georgia, Greece, Luxembourg, Malta, Republic of Moldova, Monaco, FYROM, Portugal, Romania, Russia, San Marino, Serbia, Spain, Turkey, Ukraine
+ Algeria, Morocco, Lebanon (non-members of the Council of Europe).

Other participants to EUR-OPA activities

- Observer countries:
  - Switzerland
  - Japan
  - Austria
  - Germany
  - Italy
- International Organisations
  - UN-ISDR
  - UNESCO
  - European Commission
  - IFRC
  - OCHA
  - WHO
  - UNITAR

- Other CoE entities:
  - Parlamentary Assembly
  - Congress of Local and Regional Authorities
  - Development Bank

WHAT DO WE DO ?

PROMOTE COOPERATION WITHIN MEMBER STATES ON PREVENTION, PROTECTION AND RELIEF IN THE FIELD OF MAJOR HAZARDS

WHY ?

Because Hazards ignore borders, both political and scientific !

TRY TO IDENTIFY VULNERABILITIES IN ORDER TO LIMIT BOTH MATERIAL AND HUMAN DAMMAGES

WHY ?

Because resources are needed both for prevention and intervention !

PROVIDE A JOINT WORKING PLATFORM FOR ADMINISTRATIONS AND SCIENTIFIC COMMUNITY TO COORDINATE KNOWLEDGE AND ACTION

WHY ?

Because a good knowledge is essential for accurate decisions !

HOW WE DO IT ?

1. THROUGH A POLITICAL NETWORK

Political Guidelines and Priorities defined by the **competent Ministers of member States** and implemented by their **Permanent Correspondents** through the programme of activities

2. THROUGH A SCIENTIFIC NETWORK

26 **Associated Centres** (research/training/expertise) create a **permanent structure** for multinational and pluridisciplinary **scientific and technical co-operation**

3. WITHIN A WORLDWIDE STRATEGY

The Agreement is an active partner of the UN International Disaster Reduction Strategy

A POLITICAL NETWORK

▶**Establishment of a platform for concertation and co-operation where countries are on an equal footing**

▶**Ministers of the Agreement :**

define Political Guidelines and Priorities given to initiatives and programmes regarding knowledge and risk prevention

▶**Committee of Permanent Correspondents' :**

give instructions to the Executive Secretariat of the Agreement for implementation

A SCIENTIFIC NETWORK

26 Associated Centres (research/training/expertise) : a **permanent platform for scientific and technical co-operation** allowing for a multinational and pluridisciplinary approach to risk issues.

List of Centres (1/3)

Euro-Mediterranean Centre for Research on Arid zones	CSRTRA	*Algeria*
European Inter-Regional Educational Centre	ECTR	*Armenia*
European Centre on Training and information of Local and Regional Authorities and Population in the Field of Natural and Technological Disasters	ECMHT	*Azerbaijan*
Higher Institute of Emergency Planning	ISPU	*Belgium*
European Centre for Risk Prevention	CSLT	*Bulgaria*
European Centre for Disaster Awareness with the use of Internet	BeSafeNet	*Cyprus*
European Centre for Geomorphological Hazards	CERG	*France*
Euro-Mediterranean Seismological Centre	CSEM	*France*
European Centre for the Vulnerability of Industrial and Lifelines Systems	ECILS	*FYROM*
European Centre on Geodynamical Hazards of High Dams	GHHD	*Georgia*

List of Centres (2/3)

Global Fire Monitoring Centre	GFMC	*Germany*
European Centre on Prevention and Forecasting of Earthquakes	ECPFE	*Greece*
European Centre on Forest Fires	ECFF	*Greece*
European University Centre for Cultural Heritage	CUEBC	*Italy*
European Centre for Geodynamics and Seismology	ECGS	*Luxemburg*
Euro-Mediterranean Centre on Insular Coastal Dynamics	ICoD	*Malta*
European Centre for Mitigation of Natural Risks	ECMNR	*Moldova*
Euro-Mediterranean Centre for Evaluation and Prevention of Seismic Risk	CEPRIS	*Morocco*
European Centre on Urban Risks	CERU	*Portugal*
European Centre for Buildings Rehabilitation	ECBR	*Romania*

List of Centres (3/3)

European Centre of New Technologies for Management of Natural and Technological Major Hazards	ECNTRM	*Russia*
European Centre for Disaster Medecine	CEMEC	*San Marino*
European Centre on Social Research in Emergency Situations	CEISE	*Spain*
European Natural Disasters Training Centre	AFEM	*Turkey*
European Centre of Technological Safety	TESEC	*Ukraine*

WITH WHAT RESULTS ?

RAISING RISK AWARENESS AT SCHOOL

- Educating schoolchildren about risk prevention
- Promoting the safety of school buildings

TRAINING STUDENTS AND PROFESSIONALS

- Support to European Masters on risk related topics
- Specialized courses on risk issues for professionals

IDENTIFYING GOOD PRACTICES

- Analysis of national legislations in the field of Risk Management
- Analysis of interministerial disaster management

DISSEMINATING TECHNICAL DATA

- European Warning System between authorities
- Model for earthquake damage assessment

ON HUMAN RIGHTS AND RISKS

The founding principles : European Human Rights Convention (1950)

Article 1 . Obligation to respect human rights
Contracting Parties secure within their jurisdiction the following rights and freedoms :
Article 2 . Right to life
Article 3 . Prohibition of torture
Article 4 . Prohibition of slavery and forced labour
Article 5 . Right to liberty and security
Article 6 . Right to a fair trial
Article 7 . No punishment without law
Article 8 . Right to respect for private and family life
Article 9 . Freedom of thought, conscience and religion
Article 10 . Freedom of expression
Article 11 . Freedom of assembly and association
Article 12 . Right to marry
Article 13 . Right to an effective remedy
Article 14 . Prohibition of discrimination
Article 15 . Derogation in time of emergency
Article 16 . Restrictions on political activity of aliens
Article 17 . Prohibition of abuse of rights
Article 18 . Limitation on use of restrictions on rights

ON HUMAN RIGHTS AND RISKS

Article 2 . Right to life

1 Everyone's **right to life** shall be protected by law. No one shall be deprived of his life intentionally save in the execution of a sentence of a court following his conviction of a crime for which this penalty is provided by law.

Article 5 . Right to liberty and security

1 Everyone has the right to liberty and **security of person**. No one shall be deprived of his liberty save in the following cases and in accordance with a procedure prescribed by law

Article 8 . Right to respect for private and family life

1 Everyone has the right to respect for his private and family life, his home and his correspondence.

2 There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others.

Article 9 . Freedom of thought, conscience and religion

2 Freedom to manifest one's religion or beliefs shall be subject only to such limitations as are prescribed by law and are necessary in a democratic society in the interests of public safety, for the protection of public order, health or morals, or for the protection of the rights and freedoms of others.

Article 13 . Right to an effective remedy

Everyone whose rights and freedoms as set forth in this Convention are violated shall have an effective remedy before a national authority notwithstanding that the violation has been committed by persons acting in an official capacity.

ON HUMAN RIGHTS AND RISKS

Article 14 . Prohibition of discrimination

The enjoyment of the rights and freedoms set forth in this Convention shall be secured without discrimination on any ground such as sex, race, colour, language, religion, political or other opinion, national or social origin, association with a national minority, property, birth or other status.

Article 15 . Derogation in time of emergency

1 In time of war or other public emergency threatening the life of the nation any High Contracting Party may take measures derogating from its obligations under this Convention to the extent strictly required by the exigencies of the situation, provided that such measures are not inconsistent with its other obligations under international law.

3 Any High Contracting Party availing itself of this right of derogation shall keep the Secretary General of the Council of Europe fully informed of the measures which it has taken and the reasons therefor. It shall also inform the Secretary General of the Council of Europe when such measures have ceased to operate and the provisions of the Convention are again being fully executed.

Article 17 . Prohibition of abuse of rights

Nothing in this Convention may be interpreted as implying for any State, group or person any right to engage in any activity or perform any act aimed at the destruction of any of the rights and freedoms set forth herein or at their limitation to a greater extent than is provided for in the Convention.

Article 18 . Limitation on use of restrictions on rights

The restrictions permitted under this Convention to the said rights and freedoms shall not be applied for any purpose other than those for which they have been prescribed.

ON HUMAN RIGHTS AND RISKS

Protocol 1

Article 1 – Protection of property

Every natural or legal person is entitled to the peaceful enjoyment of his possessions. No one shall be deprived of his possessions except in the public interest and subject to the conditions provided for by law and by the general principles of international law.

The preceding provisions shall not, however, in any way impair the right of a State to enforce such laws as it deems necessary to control the use of property in accordance with the general interest or to secure the payment of taxes or other contributions or penalties.

Article 2 – Right to education

No person shall be denied the right to education. In the exercise of any functions which it assumes in relation to education and to teaching, the State shall respect the right of parents to ensure such education and teaching in conformity with their own religious and philosophical convictions.

Protocol 12

Article 1 – General prohibition of discrimination

The enjoyment of any right set forth by law shall be secured without discrimination on any ground such as sex, race, colour, language, religion, political or other opinion, national or social origin, association with a national minority, property, birth or other status.

No one shall be discriminated against by any public authority on any ground such as those mentioned in paragraph 1.

ON HUMAN RIGHTS AND RISKS

Additional founding principles : Universal Declaration of Human Rights (1949)

Article 21.

(2) Everyone has the right of equal access to public service in his country.

(3) The will of the people shall be the basis of the authority of government; this will shall be expressed in periodic and genuine elections which shall be by universal and equal suffrage and shall be held by secret vote or by equivalent free voting procedures.

Article 25.

(1) Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.

(2) Motherhood and childhood are entitled to special care and assistance. All children, whether born in or out of wedlock, shall enjoy the same social protection.

Article 29.

(1) Everyone has duties to the community in which alone the free and full development of his personality is possible.

(2) In the exercise of his rights and freedoms, everyone shall be subject only to such limitations as are determined by law solely for the purpose of securing due recognition and respect for the rights and freedoms of others and of meeting the just requirements of morality, public order and the general welfare in a democratic society.

(3) These rights and freedoms may in no case be exercised contrary to the purposes and principles of the United Nations.

GENERAL SECRETARIAT FOR CIVIL PROTECTION

Emergency Response and Vulnerable Groups

Dr. Olga Kakaliagou
International Relations Dpt.

Workshop on "Human Rights in Disasters: Search and Rescue Operations in disasters especially for vulnerable groups". Athens, 5-6 November 2009

UN Convention on the Rights of Persons with Disabilities

- A response to an overlooked development challenge: approximately 10% of the world's population are persons with disabilities (over 650 million persons).
- The purpose: to promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity.
- The convention was adopted on 13.12.2006, opened for signature and ratification on 30.03.2007 and came into force on 3.05.2008.

(www.un.org)

UN Convention on the Rights of Persons with Disabilities

- According to the Convention, disability is an evolving concept and results from the interaction between persons with impairments and attitudinal and environmental barriers that hinders full and effective participation in society on unequal basis with others.
- That means, *the more obstacles there are the more disabled a person becomes.*

The fact

- Persons with disabilities are the most at risk in case of disasters.

UN Convention on the Rights of Persons with Disabilities

- **Article 11.** Situations of risk and humanitarian emergencies
- "States parties shall take, in accordance with their obligations under international law, including international humanitarian law and international human rights law, all necessary measures to ensure protection and safety of persons with disabilities in situations of risk, including situations of armed conflict, humanitarian emergencies and the occurrence of natural disasters."

EU Strategy on disability

- was established by the EC to ensure a coherent follow-up policy to the European Year of People with Disabilities in the enlarged Europe.
- was based on three pillars: (1) anti-discrimination legislation and measures, which provide access to individual rights, (2) eliminating barriers in the environment that prevent disabled people from exercising their abilities, and (3) mainstreaming disability issues in the broad range of community policies which facilitate the active inclusion of people with disabilities.

The EU Strategy on disability

- The Disability Action Plan (DAP) provides a dynamic framework to develop the EU disability strategy.
- The DAP (2003-2010) is based on three objectives:

1. Full implementation of the Employment Equality Directive,
2. Successful mainstreaming of disability issues in relevant community policies, and
3. Improving accessibility for all.

EU legislation on Civil Protection

- At European level there is legislation on Civil Protection concerning strengthening cooperation, mutual assistance etc. in case of major emergencies
- But there is no specific reference to persons with disabilities.
- Prevention and other preparedness actions are promoted within the framework of the Financial Instrument for CP (Council Decision 2007/162/EC, Euratom) as it foresees the support of specific actions for vulnerable groups.
- Nevertheless no reference to persons with disabilities is made again.

EU legislation on Civil Protection

- The Parliament "…stresses the need to take special care of the specific needs of persons with disabilities in case of natural disasters in all actions undertaken using the civil protection mechanisms" (Article 19 of the European Parliament resolution of 4.09.2007, on the 2007 summer's natural disasters).
- The Council invites Member States to "Promote awareness raising among vulnerable groups including children and youth by means of targeted civil protection programmes (e.g. competitions in the context of school education)." (Conclusions of May 2009 on civil protection awareness raising par.14f).

EU legislation on Civil Protection

- There is room for improvement in the context of European legislation concerning persons with disabilities.
- It is up to the individual Member State to introduce legislation on this subject (principle of subsidiary)
- But do Member States have certain provisions for disabled in their national legislation? At what extend?
- Should there be any European regulations or directives on the subject, so that the MS should take appropriate and/or further action, especially in major emergencies?

Manuals and Guidelines

- Manuals and Guidelines have been produced worldwide that provide important practical guidance for those working in disaster/emergency situations.
- Although documents are not legally binding, they are drawn from binding international law.

Manuals and Guidelines: Examples

- *Manual on International Law and Standards Applicable in Natural Disaster Situations* (International Development Law Organization, 2008).
- *Operational Guidelines on Human Rights and Natural Disasters (IASC, 2006)*, which were designed to assist national and international actors in implementing a human rights-based approach to humanitarian action in disaster settings.
- *Humanitarian Charter and Minimum Standards in Disaster Response* (Sphere Project, 2004), an important source of reference for protecting the rights of persons affected by natural disasters.

Manuals and Guidelines: Examples

- *Guiding Principles on Internal Displacement* (1998), which identify rights and guarantees relevant to the protection of individuals during displacement and return, resettlement and reintegration.
- *Supporting People with Disabilities During Emergencies,* Texas State Guard, Texas Medical Rangers, August 2008
- *Handbook on Disability and Special Needs*, West Virginia University

Personal Communications Technology for Emergencies

- **The ability to send and receive information** is a *crucial component* of any personal preparedness plan. The ability to receive critical information about an emergency, how to respond to an emergency, and where to go to receive assistance can mean the difference between life or death.
- Communications also includes the ability of an individual to give vital information about oneself, one's location, immediate medical needs, and the need for assistance.

Terms of Accessibility & Usability

- **What Does it Mean to be "Accessible?"** Basically, technology is accessible if it can be used as effectively by people with disabilities as by those without them.
- **Usability** refers to the ability of average users with the "standard" range of equipment or abilities to navigate and use a web site. From the web developer's standpoint, usability means designing a user interface that is effective, efficient, and satisfying.

Main Issues

- Issues that have the greatest impact on people with disabilities include: **planning, notification, evacuation, emergency transportation, sheltering, access to medical care and medications, access to their mobility devices or service animals while in transit or at shelters and access to information.**
- People with disabilities should be involved in the process of identifying needs and evaluating effective emergency management practices.
- The existence of a social environment and social networking could be proven very significant for persons with disabilities.

EU Civil Protection Projects on Vulnerable Groups

Co-financed by the European Commission-DG Environment-CP Unit:

- *The EU civil protection project "Information to the Public 2002 - 2005".*
  - ➢Coordinated by the Swedish Rescue Services Agency
  - ➢Project target group: children and youth.
- "Rescuing Injured Disabled Persons in Case of Disasters - Civil Protection's Challenge in the Challenge"
  - ➢Coordinated by ULSS 20 Verona (Local Public Health and Social Authority in the Veneto Region) - Italy
  - ➢The project concludes to recommendations for good practice.

EU Civil Protection Projects on Vulnerable Groups

- In November 2007 a conference has been held in the framework of the project "Rescuing Injured Disabled Persons in Case of Disasters - Civil Protection's Challenge in the Challenge". In the Consensus Conference the Declaration of the participants has been signed, the so called **"Verona Charter"** on the rescue of persons with disabilities in case of disasters
- The Verona Charter intends to be a contribution to the UN Convention on the Rights of Persons with Disabilities and to link existing fundamental liberties and civil protection together and render them more visible to citizens and institutions.

EU Civil Protection Projects on Vulnerable Groups

- **"PROMYLIFE"** (How to Better Protect my Life in Major Emergencies)
- Coordinated by the Development Enterprise of Achaia Prefecture (NEA) - Greece
- The project aims to improve the preparedness of the public and in particular of the vulnerable groups (elderly, children, disabled and disadvantaged people, etc.) in major and extreme events.
- A task of the project is to prepare guidelines on the facilitation of information provision to the general public and the vulnerable population groups.

Some facts in Greece – A Social Initiative

- "Assistance at Home" is an important social care on-going initiative at municipality level. It was introduced as a pilot scheme in March 1988 in two areas of Athens (Gyzi and Sepolia). Now it is extended in many areas in Greece.
- The "Assistance at Home" initiative is addressed to senior citizens who cannot look after themselves fully, as well as individuals with mobility difficulties and other disabilities.
- The aim of the initiative is to improve the quality of life of the target group, assist in ensuring recipients live an independent and dignified life, support their family environment and promote the abilities of qualified, specialized staff.

"Assistance at Home"

- "Assistance at Home" provides **counseling and psychological support, nursing care, family assistance and companionship**.
- It is co-financed by the European Regional Development Fund (75%).
- 1000 units of the "Assistance at Home" operate in Greece.

Civil Protection Legislation in Greece

- The aim of the Civil Protection in Greece according to the base Law for Civil Protection (Law 3013/2002) is the protection of citizens life, health and property as well as the protection of material & cultural resources, and infrastructure from natural, technological and other disasters that cause state of emergency during peacetime.
- Nevertheless no specific reference is made to vulnerable groups, as the Law keeps the general tendency to treat all citizens, even persons with disabilities as "all the same" and does not distinguish different categories of the population.

Civil Protection Awareness Activities

- The General Secretariat for Civil Protection (National Authority for Civil Protection in Greece) develops specialized information material for children, as a sensitive population target group.
- A website for children was also developed with information and games mainly on natural disasters.
- At present new material for children and youth is prepared, such as videos and interactive games.

Civil Protection Awareness Activities

- The Earthquake Planning and Protection Organization (EPPO) is activated in the area of awareness raising and information to the public and children regarding earthquakes.
- In 2008 a handbook addressed to persons with disabilities was published. It contains information on the phenomenon of earthquakes and self-protection measures in case of earthquake disasters.
- Other CP services carry out awareness activities: they mainly address the general public and children.

Search and Rescue

- Humanitarian assistance must be provided in accordance with the principles of humanity, neutrality and impartiality (UN GA Resolution 46/182 since 1991)
- In search and rescue operations and in case of persons with disabilities, specialized personnel can be called to assist (e.g. to solve communication problems - signed language).
- The personnel of the National Emergency Health Care Unit (EKAB) in case of persons with disabilities follows guidelines, which were drawn up for the Olympic Games in 2004.

Discussion and General Remarks

- Disaster preparedness and emergency response systems and plans should take into account the specific needs of vulnerable groups and persons with disabilities.
- Training systems for emergency and CP staff should follow the international manuals and guidelines with instructions in order to increase the safety of persons with disabilities in emergencies, although the manuals are not legal binding documents.

Discussion and General Remarks

- Civil protection and risk related legislation could incorporate special provisions for the vulnerable groups and persons with disabilities.
- Relevant legislation at European Level may be necessary.
- In addition, new technology tools and capabilities could be used to serve the needs of persons with disabilities in terms of risk and emergency communication, location and assistance provision.

EARTHQUAKES AND PREVENTIVE MEASURES

by

K. C. Makropoulos

EARTHQUAKES AND PREVENTIVE MEASURES

INSTRUMENTS

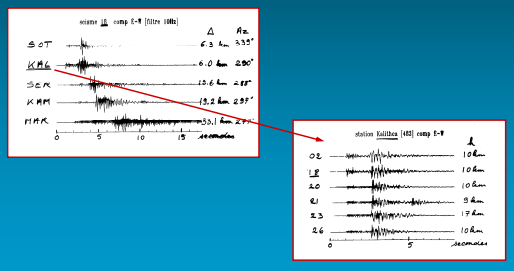
SEISMOSCOPE

MODERN SEISMOGRAPH

EARTHQUAKES AND PREVENTIVE MEASURES

READINGS

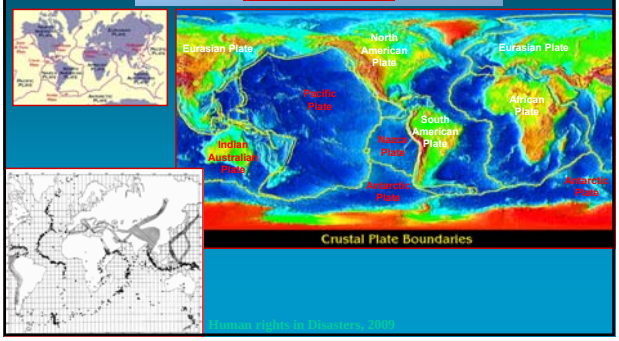
SEISMOGRAMS



EARTHQUAKES AND PREVENTIVE MEASURES

THEORIES ABOUT THE ORIGIN

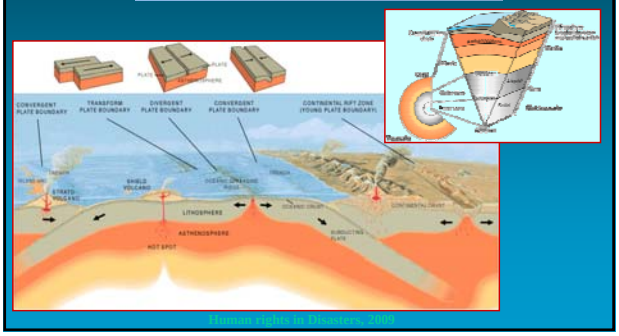
PLATE TECTONICS



EARTHQUAKES AND PREVENTIVE MEASURES

THEORIES ABOUT THE ORIGIN

PLATE TECTONICS

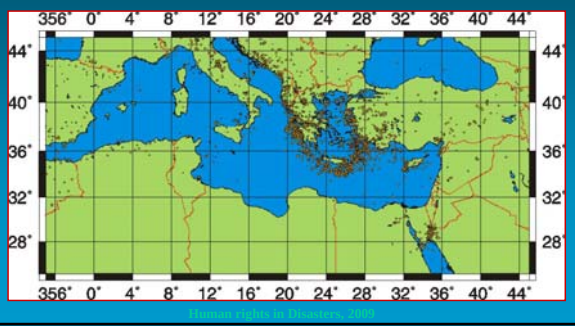


EARTHQUAKES AND PREVENTIVE MEASURES

PLATE TECTONICS IN THE AEGEAN

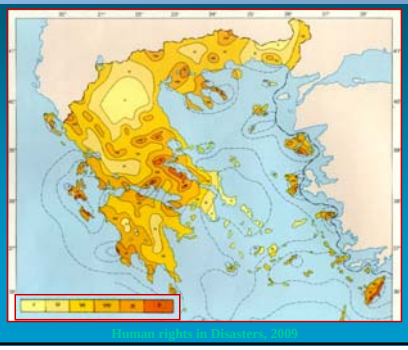
EARTHQUAKES AND PREVENTIVE MEASURES

SEISMICITY OF THE MEDITERRANEAN AREA



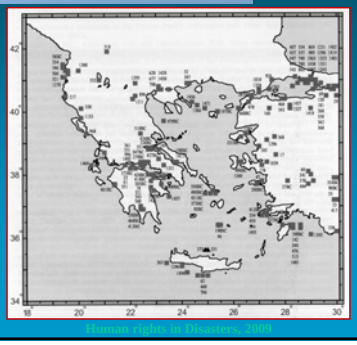
EARTHQUAKES AND PREVENTIVE MEASURES

MAXIMUM OBSERVED INTENCITIES IN GREECE



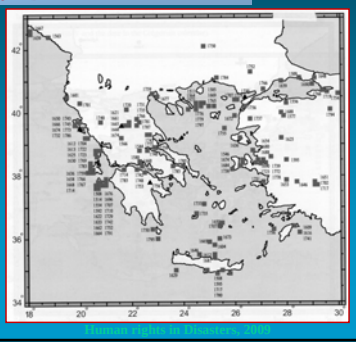
EARTHQUAKES AND PREVENTIVE MEASURES

SEISMICITY IN GREECE
550 BC – 1500 AD



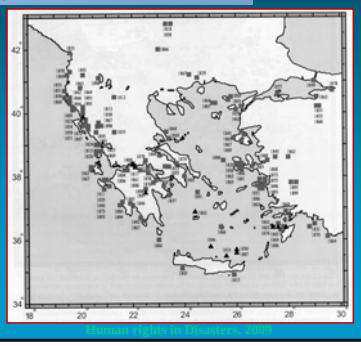
EARTHQUAKES AND PREVENTIVE MEASURES

SEISMICITY IN GREECE
1501 – 1800 AD



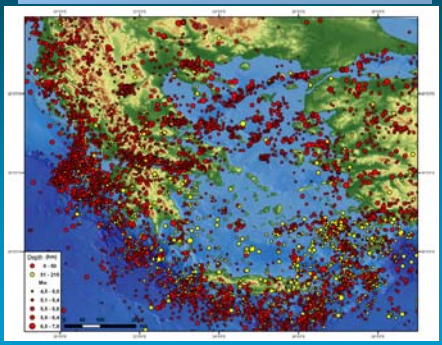
EARTHQUAKES AND PREVENTIVE MEASURES

SEISMICITY IN GREECE
1801 – 1900 AD



EARTHQUAKES AND PREVENTIVE MEASURES

SEISMICITY (1900-2009)



EARTHQUAKES AND PREVENTIVE MEASURES

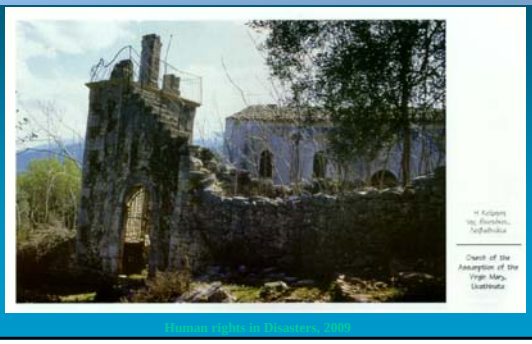
SEISMICALLY ACTIVE FAULTS

EARTHQUAKES AND PREVENTIVE MEASURES

KEFALLINIA EARTHQUAKE, 1953

EARTHQUAKES AND PREVENTIVE MEASURES

KEFALLINIA EARTHQUAKE, 1953



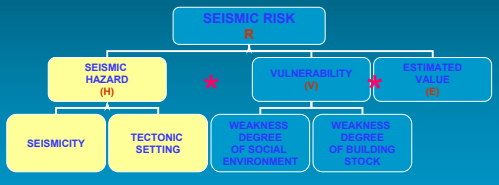
EARTHQUAKES AND PREVENTIVE MEASURES

ATHENS EARTHQUAKE SEPTEMBER 7, 1999

EARTHQUAKES AND PREVENTIVE MEASURES

ATHENS EARTHQUAKE SEPTEMBER 7, 1999

EARTHQUAKES AND PREVENTIVE MEASURES



R=H*V*E

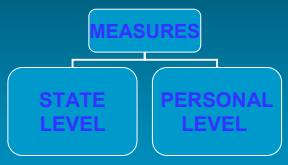
EARTHQUAKES AND PREVENTIVE MEASURES

R=H*V*E

Reduction of Vulnerability

EARTHQUAKES AND PREVENTIVE MEASURES

PREVETION MEASURES



EARTHQUAKES AND PREVENTIVE MEASURES

EARTHQUAKE PLANNING AND PROTECTION ORGANIZATION (E.P.P.O.)

EARTHQUAKES AND PREVENTIVE MEASURES

E.P.P.O. - ACTIVITIES

1. Strengthening of the seismic capacity of the structures

2. Sector of seismology, seismotectonics - study and estimation of seismic risk:
-Ensuring of reliable seismological data.
-Enactment of specifications and recommendations for the elaboration of studies related to seismic hazard.
-Emphasis in the local ground conditions.

3. Briefing of Citizens

4. Emergency Planning

5. Scientific programs - studies

6. Confrontation of earthquakes

EARTHQUAKES AND PREVENTIVE MEASURES

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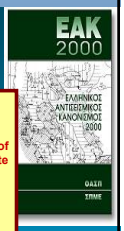
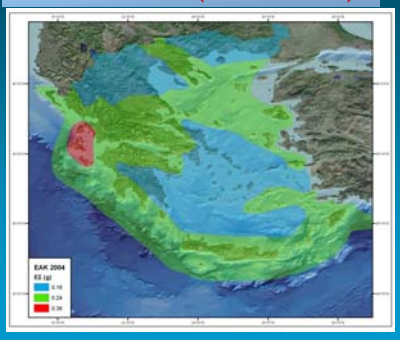
1. Greek Seismic Design Code (EAK –2000)
2. Greek Design Code of Reinforced Concrete (EKOS – 2000)
3. Regulation of Repair and Strengthening of Buildings
4. Pre-earthquake Inspection of Public Buildings
5. Pre-earthquake Inspection of Bridges



EARTHQUAKES AND PREVENTIVE MEASURES

SEISMIC ZONES (FROM 1-1-2004)



EARTHQUAKES AND PREVENTIVE MEASURES

E.P.P.O. - ACTIVITIES

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-Emphasis in the local ground conditions.

1. New Map of Seismic Risk of Greece.
2. Study related to the geotechnical profile of Attica
3. Forming and maintenance of a Net of Seismographs

3. Briefing of Citizens
4. Emergency Planning
5. Scientific programs - studies
6. Confrontation of earthquakes

EARTHQUAKES AND PREVENTIVE MEASURES

E.P.P.O. - ACTIVITIES

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-Ensuring of reliable seismological data.
-Enactment of specifications and recommendations for the elaboration of studies related to seismic hazard.
-Emphasis in the local ground conditions.

1. School Educational Programs
2. Educational Seminars to school teachers
3. Briefing of the citizens in subjects related to earthquakes
4. Forming and Training of groups of volunteers

3. Briefing of Citizens
4. Emergency Planning
5. Scientific programs - studies
6. Confrontation of earthquakes

EARTHQUAKES AND PREVENTIVE MEASURES

E.P.P.O. - ACTIVITIES

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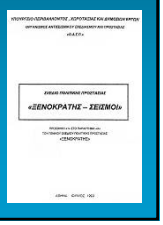
3. Briefing of Citizens
4. Emergency Planning

1. Design of Plan «Xenokratis-Earthquakes»
2. Construction of rescue equipment for trapped persons



5. Scientific programs - studies
6. Confrontation of earthquakes

EARTHQUAKES AND PREVENTIVE MEASURES

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5. Scientific programs - studies

6. Confrontation of earthquakes

EPPO announced a Coordinated Project of Applied Research in the field of Earthquake Technology, Seismology, Seismotectonics, and Social Earthquake Defense.

From the 191 proposals after the 1999 Athens earthquake, 74 were approved and completed. The coordination and the supervision of the projects were assigned from EPPO to carefully selected scientific committees.

EARTHQUAKES AND PREVENTIVE MEASURES

MEASURES

EARTHQUAKES AND PREVENTIVE MEASURES

SAFETY MEASURES (BEFORE)

Check for hazards in the home.
Fasten shelves securely to walls.
Place large or heavy objects on lower shelves.
Store breakable items such as bottled foods, glass, and china in low, closed cabinets with latches.
Hang heavy items such as pictures and mirrors away from beds, couches, and anywhere people sit.
Brace overhead light fixtures.
Repair defective electrical wiring and leaky gas connections. These are potential fire risks.
Secure a water heater by strapping it to the wall studs and bolting it to the floor.
Repair any deep cracks in ceilings or foundations. Get expert advice if there are signs of structural defects.
Store weed killers, pesticides, and flammable products securely in closed cabinets with latches and on bottom shelves.

Identify safe places in each room.
Under sturdy furniture such as a heavy desk or table.
Against an inside wall.
Away from where glass could shatter—around windows, mirrors, pictures, or where book-cases or other heavy furniture could fall over.

Locate safe places outdoors.
In the open, away from buildings, trees, telephone and electrical lines, overpasses, or elevated expressways.

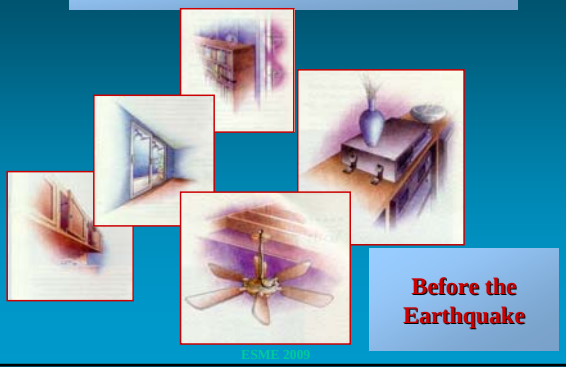
Make sure all family members know how to respond after an earthquake.
Teach all family members how and when to turn off gas, electricity, and water.
Teach children how and when to call 9-1-1, police, or fire department and which radio station to tune to for emergency information.

Contact local emergency management office or Red Cross chapter for information on earthquakes.

Have disaster supplies on hand.
Flashlight and extra batteries
Portable, battery-operated radio and extra batteries
First aid kit and manual
Emergency food and water
Non-electric can opener
Essential medicines
Cash and credit cards
Sturdy shoes

T EARTHQUAKES AND PREVENTIVE MEASURES

PREVENTION



Before the Earthquake

EARTHQUAKES AND PREVENTIVE MEASURES

SAFETY MEASURES (DURING)

Develop an emergency communication plan.
In case family members are separated from one another during an earthquake (a real possibility during the day when adults are at work and children are at school), develop a plan for reuniting after the disaster.
Ask an out-of-state relative or friend to serve as the "family contact." After a disaster, it's often easier to call long distance. Make sure everyone in the family knows the name, address and phone number of the contact person.

If indoors:
Take cover under a piece of heavy furniture or against an inside wall and hold on.
Stay inside.
The most dangerous thing to do during the shaking of an earthquake is to try to leave the building because objects can fall on you.

If outdoors:
Move into the open, away from buildings, street lights, and utility wires.
Once in the open, stay there until the shaking stops.

If in a moving vehicle:
Stop quickly and stay in the vehicle.
Move to a clear area away from buildings, trees, overpasses, or utility wires.
Once the shaking has stopped, proceed with caution. Avoid bridges or ramps that might have been damaged by the quake.

Stay out of damaged buildings. Return home only when authorities say it is safe.
Use the telephone only for emergency calls.
Clean up spilled medicines, bleaches or gasoline or other flammable liquids immediately. Leave the area if you smell gas or fumes from other chemicals.
Open closet and cupboard doors cautiously.
Inspect the entire length of chimneys carefully for damage. Unnoticed damage could lead to a fire.

Be prepared for aftershocks.
Although smaller than the main shock, aftershocks cause additional damage and may bring weakened structures down. Aftershocks can occur in the first hours, days, weeks, or even months after the quake.

Help injured or trapped persons.
Give first aid where appropriate. Do not move seriously injured persons unless they are in immediate danger of further injury. Call for help.

Listen to a battery-operated radio or television for the latest emergency information.

Remember to help your neighbours who may require special assistance — infants, the elderly, and people with disabilities.

EARTHQUAKES AND PREVENTIVE MEASURES

PREVENTION

During the Earthquake

EARTHQUAKES AND PREVENTIVE MEASURES

SAFETY MEASURES (AFTER)

Pets after an Earthquake
The behaviour of pets may change dramatically after an earthquake. Normally quiet and friendly cats and dogs may become aggressive or defensive. Watch animals closely. Leash dogs and place them in a fenced yard.
Pets may not be allowed into shelters for health and space reasons. Prepare an emergency pen for pets in the home that includes a 3-day supply of dry food and a large container of water.

Inspection Utilities in a Damaged Home
Check for gas leaks — If you smell gas or hear a blowing or hissing noise, open a window and quickly leave the building. Turn off the gas at the outside main valve if you can and call the gas company from a neighbor's home. If you turn off the gas for any reason, it must be turned back on by a professional.
Look for electrical system damage — If you see sparks or broken or frayed wires, or if you smell hot insulation, turn off the electricity at the main fuse box or circuit breaker. If you have to step in water to get to the fuse box or circuit breaker, call an electrician first for advice.
Check for sewage and water lines damage — If you suspect sewage lines are damaged, avoid using the toilets and call a plumber. If water pipes are damaged, contact the water company and avoid using water from the tap. You can obtain safe water by melting ice cubes.

EMERGENCY INFORMATION

- ✓ The best protection during an earthquake is to get under heavy furniture such as a desk, table, or bench.
- ✓ The greatest danger exists directly outside buildings, at exits, and alongside exterior walls. Many injuries and fatalities occur when people run outside of buildings only to be hit by falling debris from collapsing walls.
- ✓ Ground movement during an earthquake is seldom the direct cause of death or injury. Most earthquake-related casualties result from collapsing walls, flying glass, and falling objects.

EUR-OPA MAJOR HAZARDS AGREEMENT
ACCORD EUR-OPA RISQUES MAJEURS

European Interregional
Scientific and Educational Centre
on Major Risk Management

"Human rights in Disasters: Search and Rescue Operations in disasters especially for vulnerable people"

Workshop

5th & 6th of November 2009 Hotel Electra Palace, Athens (Greece)

Stepan BADALYAN

Disaster risk reduction and the protection of vulnerable people-
preparedness and preventive measures.

Yerevan, Republic of Armenia, 2009

People with physical, mental or sensory limitations are often disabled not because of the diagnosable condition, but because they are denied access to education, labour markets and public services.

What is more tragic than that they all are lacking or being provided a handicapped access to education, informing , warning and relevant public services in regard to the observance of their rights and equitable access to meeting their needs in the field of disaster risk reduction and reducing vulnerability, the protection of life and health, the administration of first aid and first psychological intervention and first- and self- aid training in emergencies.

At the same time, a number of lacks and gaps in the texts of the Standard Rules has been revealed during their practical implementation , in particular, those concerning the restricted access to education, informing and warning (awareness raising) and relevant public services by people with disabilities of all ages regards the observation of their rights and the provision of equal opportunities to meeting their needs in the field of disaster risk reduction and reducing vulnerability, the protection of life and health against emergencies.

To eliminate the shortcomings in the above area requires to develop and introduce, in appropriate way, below are given some suggestions to supplement the texts of the Standard Rules .

In particular, if the Standard Rules (Section 28) say, that states through their existing medical system should ensure that the disabled get the medical services adequate to those provided to other community members,

than this, of course, should state that states must ensure the disabled of all ages to get the similar search, rescue, first aid and first psychological intervention in major natural and man-made disasters and in other extreme situations.

If the Standard Rules (Section 29) say, that states must ensure adequate preparedness and the provision of equipment to all medical and nursery brigades and related to them personnel servicing the disabled and must ensure access to appropriate methods and tools in providing treatment,

than this, of course ,should state that states must ensure adequate training and equipping of rescue teams, medical , nursery and related to them brigades to enable search, rescue and administering first aid to people with disabilities in major disaster and in other emergency situations.

If the Standard Rules (Section 31) say, that states should elaborate and implement the Programs seeking the engagement of the disabled men and women of all ages in full, aimed at providing them appropriate completely accessible education, informing and services regards meeting their needs in the field of the protection of reproduction sexual health ,

than this, of course , should state that states should elaborate and implement Programs supporting the full engagement of disabled men and women of all ages and targeted at providing them appropriate education, informing , warning and services by relevant structures concerning the observance of their rights and provision of equal opportunities to meet their needs in the field of disaster risk reduction and reducing vulnerability and the protection of live and health.

Ensuring the provision of equal opportunities in the above area to the disabled of all ages requires in line with resolving legislative and other strategic goals also meeting below three essential objectives:

1. To educate emergency and relief managers and workers about the special and heterogeneous needs of the people with disabilities (including, the preparing and publication of correspondent information materials)

2. To bring the people with disabilities to the emergency management table with the first responders to introduce the two sides to each other:

to educate first responders to work adequately with disabled, to ensure adequate preparedness and equip rescuers and related to them the personnel servicing the disabled to rescue and search the disabled and show them first aid and first psychological assistance

to make people with disabilities active participate in disaster planning and preparedness, teach them how to survive in emergencies , encourage them to cultivate creative skills, first - and self -aid skills included.

3. For the people with disabilities to be insured equal rights and enhanced education and preparedness, the development of relevant information materials assigned to them and their training should be implemented through regular organizing and holding national and municipal Campaigns on informing and warning the population about emergencies.

The elaborations in parallel with practicing their outcomes are supposed to be implemented under support of EUR-OPA Major Hazards Agreement in close collaboration with the

relevant structures of the Emergency Management Ministry of Armenia (in first turn with the Rescue Service of Armenia and Academy of Crisis Management),

relevant UN's structures in Armenia and other concerned international organizations

as well as with active participation of organizations and specialists attending this Workshop in Athens.

Particularly this refers to our next developments (Projects) and suggestions:

"The methodology and Plan for action to develop and hold national and municipal Campaigns on informing and warning the population about emergencies at central and municipal levels";

"Preparing and implementing special Tests assigned for school administration, teachers and parents to assess safety of school , undertake preventive measures to reduce risks as well as to respond adequately to an imminent natural or man-made disasters or to a terrorist attack or to a threat of such an attack" ;

"Training community counsels (local psychologists) in providing first psychological aid and long-term psychological assistance to disaster victims, particularly children" .

These information materials include the knowledge on:

Risks present in a country, region or area where these people live.

Likely scenarios in case of a specific disaster.

Technique and tools available to inform and warn people about the disaster.

How to respond when warned about an imminent disaster (in a preventive phase) and in circumstances when a disaster is real (in an acute phase).

How to proceed in a recovery phase.

The sirens, enterprise and transport hoots will go off, police loudspeaker vans will drive round the streets with warning announcements.

WHEN A SIREN SOUNDS THIS IS ALARM: *"WARNING TO EVERYONE..."*

WHAT YOU SHOULD DO FIRST

GO INSIDE THE NEAREST BUILDING IMMEDIATELY

CLOSE DOORS AND WINDOWS

TURN ON THE RADIO AND TV TO RECEIVE INFORMATION ABOUT WHAT SHOULD BE DONE NEXT

THIS IS THE FASTEST WAY TO KNOW WHAT IS GOING ON AND WHAT YOU MUST DO.

The following universal (basic) information materials assigned to be distributed in each family have been developed within the Project:

Information Leaflet: "What to do first".

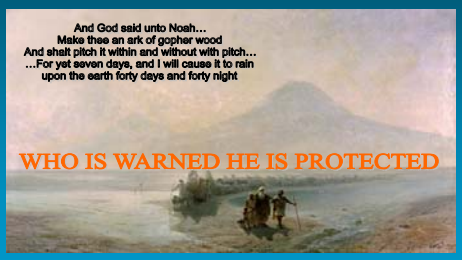
A short Brochure:"Brief information for the population what to do first when warned on an imminent disaster".

A more detailed Brochure:"The priorities for action to be undertaken by the population when warned on an imminent disaster or in case of disasters likely to occur in Armenia".

THE PRIORITIES FOR ACTION TO BE UNDERTAKEN BY THE POPULATION

when warned on an imminent disaster

or in the case of disasters likely to occur in Armenia



IF YOU KNOW WHAT TO DO IN THE CASE OF A DISASTER
YOU WILL SAVE YOUR OWN LIFE AND THE LIVES OF YOUR CLOSE-ONES

At the same time for the municipalities at special risks the following four additional informational modules have been created:

A manual for the population on how to act when an earthquake is real or seems imminent (the priorities for action to be undertaken by the population).

A manual for the population on how to act when radiation pollution is real or seems imminent (the priorities for action to be undertaken by the population).

A manual for the population on how to act when a flood is real or seems imminent (the priorities for action to be undertaken by the population).

A manual for the population on how to act when chemical pollution is real or seems imminent (the priorities for action to be undertaken by the population).

The mentioned brief and more detailed basic information materials as well as information materials for the population of municipalities at special risks assigned for the distribution in each family, and thereby promoting their usage while informing and warning the most vulnerable people- children, elderly and disabled included.

However, the specifics of the most vulnerable segments of population dictate the urgent necessity to prepare for them within national and municipal "Campaigns" some specific information materials.

By taking the above into account ECRM has planned for 2010 and following years to prepare some information materials addressing special targeted groups of the population, including the most vulnerable groups. In particular, in 2010

"The Manual for people with disabilities on how to act when an earthquake is real or seems imminent (the priorities for action to be undertaken by the population) is to be created within the above Project .

As for the second Project, than it is necessary to note, that the special Tests to assess safety of school and its readiness to respond adequately in disasters could be partially implemented directly and partially could serve a basis for the elaboration of

Additional special Tests to assess safety of specialized educational institutions where physically handicapped children with impaired mobility and having impaired hearing and vision are located, along with people living in elderly houses and in other specialized institutions.

The mentioned goal becomes the priority goal given that in border regions of Armenia as well as in other countries where some military actions took place, a number of children have impaired mobility as they have been blown up by left mines.

The third mentioned above Project which has been mainstreamed into ECRM Action Plan for 2010 and following years,

will cover specific challenges for providing first psychological assistance and long-term psychological intervention to disaster victims , particular to physically handicapped people with impaired mobility or having impaired hearing or vision, in particularly, children.

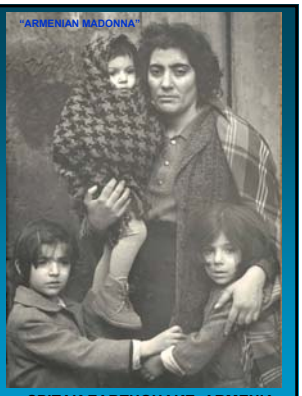
WHO IS WARNED HE IS PROTECTED

IF YOU KNOW WHAT TO DO
IN THE CASE OF A DISASTER

YOU WILL SAVE
YOUR OWN LIFE

AND

THE LIVES
OF YOUR CLOSE-ONES



SPITAK EARTHQUAKE, ARMENIA
DECEMBER 7, 1988

Theme 10: Security
Call FP7-SEC-2007-1

"Second Generation Locator for Urban Search and Rescue Operations"

Proposal acronym: "**SGL for USaR**"

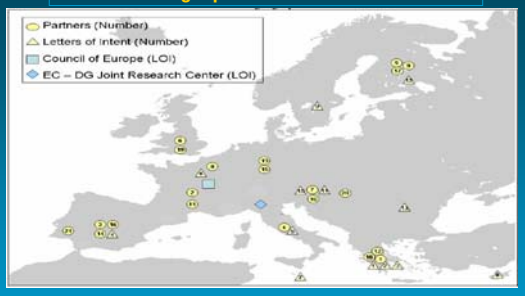
(Proposal Number FP7-217967)

Type of funding scheme: Collaborative Project

M. Statheropoulos*, A. Agapiou, S. Karma, K. Mikedi, G. Pallis

Work programme topics addressed:
4. Restoring security and safety in case of crisis / 4.2 Integration projects
SEC-2007-4.2-02: "Integrated specialist search and rescue system"

Partners and LOIs (Letters of Intent)
Geographical Distribution



- A **pan-European interdisciplinary**, mission oriented integrated projec
- A **well-balanced consortium of 21 partners** including rescue teams, researchers and SMEs
- Support of **15 LOIs** (10 EU member states, JRC, Council of Europe)

a. List of participants

Participant no.	Participant name	Participant short name	Country
1 (Coordinator)	National Technical University of Athens	FIACTU/NTUA	Greece
2	Service Départemental d'Incendie et de Secours du Vaucluse	SDIS 84/ FR Rescue Team	France
3	Direccio General De Prevencio I Extincio D'incendis I Salvaments	DGPEIS/ ES Rescue Team	Spain
4	FAENZI s.r.l.	FAENZI	Italy
5	Valtion Teknillinen Tutkimuskeskus	VTT	Finland
6	The University of Manchester	UNIMAN	UK
7	Gesellschaft zur Förderung der Analytischen Wissenschaften e.V.	ISAS	Germany
8	ECOMED bvba	ECOMED	Belgium
9	Environics Oy	ENVIRONICS	Finland
10	Austrian Academy of Sciences	AAS	Austria
11	Entente Interdépartementale en vue de la Protection de l'Environnement et de la Foret contre l'Incendie	CEREN	France
12	ANCO S.A. Agencies, Commerce & Industry	ANCO	Greece
13	University of Dortmund	UNIDO	Germany
14	TEMAI Ingenieros S.L.	TEMAI	Spain
15	G.A.S. Gesellschaft für analytische Sensorsysteme mbH	GAS	Germany
16	Universidad Politecnica de Madrid	UPM	Spain
17	Savox Communications Ltd	SAVOX	Finland
18	University of Athens	UoA	Greece
19	Markes International ltd	MARKES	UK
20	Bay Zoltan Foundation for Applied Research	BZF	Hungary
21	Critical Links SA	CRITICAL	Portugal

b. List of Letters of Intent (LOIs)

	Organization Name	Country
1	Hellenic Fire Brigade	Greece
2	National Centre for Emergency Care	
3	Hellenic Rescue Team (NGO)	
4	Bomberos Sin Fronteras (NGO)	Spain
5	Civil Protection	Italy
6	Civil Protection	Luxemburg
7	Civil Protection	Malta
8	Civil Protection	Cyprus
9	Goteborg Fire and Rescue Service	Sweden
10	Professional Fire Department of Innsbruck	Austria
11	Vorarlberg Union of Fire Departments	
12	Rescue Service Unit	Finland
13	General Inspectorate for Emergency Situations	Romania
14	"Open Partial Agreement on Major Hazards" of the Council of Europe	Main Office in Strasbourg, France
15	EC-DG Joint Research Center	Ispra, Italy

Concept of the project

1. **Natural disasters** can cause:
   - ✓ **massive destruction**
   - ✓ **high mortality**
   - ✓ **many casualties especially in urban areas**
2. **Search and rescue operations pose significant, interdisciplinary challenges**

Urban Search and Rescue Technology Needs: Ten Highest Priority	
1	Improved real-time data access
2	The ability to "see" through walls, smoke, debris and obstacles
3	The ability to communicate through/around obstacles
4	Lighter, more efficient power sources
5	Improved monitoring systems, real-time, portable, multi-function devices that expand on existing detection capabilities
6	Improved Personal Protective Equipment (PPE)
7	Multifunctional equipment
8	Improved breaching, shoring, and debris removal
9	Reliable non-human, non-canine search and rescue capabilities
10	Standardized equipment

3. **Integration of early location and monitoring methods, with communication and information technology is the most appropriate approach to meet the requirements of USaR operations**

Voids Chemical Environment Simulator

Objectives:

- ➢ **Design and development of two novel physical devices that provide total simulation in order to reduce the need of field tests and overall time taken to run complex experiments in extreme conditions**

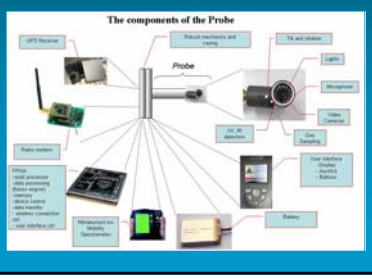
✓ Delivery of a prototype simulator for chemical environment simulation

✓ Provision of a prototype environmental chamber for selective sample analysis

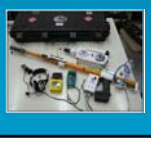
First Responder Devices

Objectives:

- **Set-up and configure chemical methods for selective location of entrapped alive people and buried bodies**
- **Develop a First Responder standalone prototype Device for early location and monitoring**



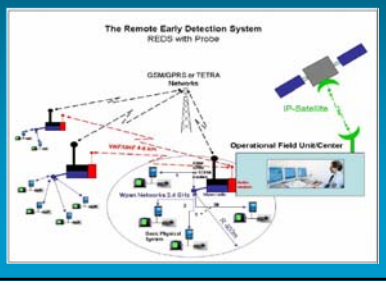
FIRST responder device



Remote Early Detection Systems (REDS)

Objectives:

- **Development of probes for early location and situation monitoring**
- **Development of a remote system for data analysis and decision support, based on developed algorithms and software for early location and monitoring**



Operational and Innovative methods and Techniques in USaR Operations

Objectives:

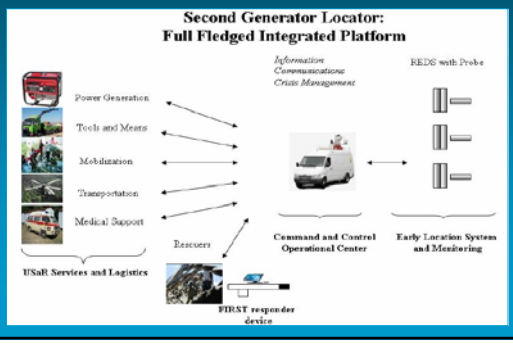
- Survey, evaluate and benchmark methods and technology status in USaR
- Enhance medical knowledge and on-site support of entrapped people

Integrated Platform for supporting USaR Operations

Objectives:

- Configure, tune and optimize chemical, optical, acoustic methods for sensitive and selective human and event recognition
- Build up general directions and specifications consensus for the architecture of the SGL integrated platform and its modules for a system tailored to end-users needs
- Develop all physical and software modules of SGL platform

- To develop the SGL platform
- To validate the SGL platform and the prototype devices
- To optimize the prototype devices and the SGL platform
- To improve system performance by using performance indicators



See More:

SGL for USaR web site: www.sgl-eu.org

Technology Forum: http://tech-forum.sgl-eu.org

Session I: Human rights in disasters-An overview

"Human rights in Disasters: Search and Rescue Operations in disasters especially for vulnerable people"
Athens, 5-6 of November 2009

United Nations International Strategy for Disaster Reduction

Human Rights and Disaster Risk Reduction

www.unisdr.org/europe

Workshop on human rights in disasters: search and rescue operations in disasters especially for vulnerable people

Athens, 05-06 November 2009

Demetrio Innocenti
Associate Expert
UNISDR Europe

The International Strategy for Disaster Risk Reduction (ISDR)

- The ISDR system is a broad network of partners including UN Agencies, NGO's, governments, international financial institutions, universities and technical institutions.
- The International Strategy for Disaster Reduction (ISDR), guided by the internationally agreed Hyogo Framework for Action, aims to build the resilience of communities and nations through building capacities to use proven tools for reducing disaster risk.
- The UN International Strategy for Disaster Reduction (UNISDR) is the secretariat to the ISDR system. In Europe, UNISDR has been very active in promoting coordinated actions towards DRR in collaboration with partners such as EUR-OPA (Council of Europe), the EC, the National Platforms and HFA Focal Points, the WB and GFDRR and other UN partner agencies.

Hyogo Framework for Action 2005-2015:

Building the resilience of nations and communities to disasters

… to substantially reduce disaster losses, in lives, social, economic and environmental assets….

Three strategic goals

- The integration of disaster risk reduction into sustainable development policies and planning.
- The development and strengthening of institutions, mechanisms and capacities to build resilience to hazards.
- The systematic incorporation of risk reduction approaches into the implementation of emergency preparedness, response and recovery programmes.

Hyogo Framework for Action 2005-2015:

Building the resilience of nations and communities to disasters

Five priorities for action

1. **Governance**: ensure that disaster risk reduction is a national and local priority with strong institutional basis for implementation
2. **Risk identification:** identify, assess and monitor disaster risks and enhance early warning
3. **Knowledge:** use knowledge, innovation and education to build a culture of safety and resilience at all levels
4. **Reducing the underlying risk factors** in various sectors (environment, health, construction, etc.)
5. **Strengthen disaster preparedness for effective response**

Words Into Action:
A Guide for Implementing the Hyogo Framework
www.unisdr.org/eng/hfa/docs/Words-into-action/Words-Into-Action.pdf

Europe Region and disasters

Europe countries are exposed to a range of disasters caused by the impact of natural hazards, including earthquakes, floods, forest fires, drought and landslides. The impact of climate change, accompanied by changes in land-use patterns and increased human settlements in areas that are prone to disasters, will certainly increase risk from such weather-related hazards in the coming years.

Disasters and Human Rights

- Recent humanitarian crises caused by disaster situations have raised new challenges, in particular in relation to the protection of the basic human rights of disaster affected populations and victims at times of disasters.
- Whilst the concept of Human Rights protection is widely acknowledged as a crucial element of humanitarian strategies at times of emergency and disaster situations, the longer-term aspects linked to the promotion and definition of a human rights-based approach in disaster prevention and reduction is still limited.

Critical issues in human rights when considering disaster management and reduction

- Critical issues emerged in recent crises included the following:
  - Non-discrimination (of gender, age, ethnicity etc..)
  - Equality
  - Legal protection
  - Right to security
  - Access to health services
  - Shelter and housing
  - Clean water
  - Education
  - Compensation
  - Etc…

Rights and disasters

Every individual has the Right:

1. **For protection and assistance at times of emergencies** – *International humanitarian laws and national legislations do protect affected populations during emergency situations*

2. **Right to Development** – *communities living in disaster-prone areas have the right to protect their development efforts and achieve sustainable development – This can be achieved through disaster risk reduction. As such, a specific human rights based approach for disaster risk reduction should be developed*

3. **Right to an equal access to Education for all** in particular*:*

a) *Access to school for those living in disaster affected areas*
b) *Safe schools and disaster-resilient education infrastructures*
c) *To allow all children to learn about disasters and risks to be more aware of surrounding threats and be better prepared at times of disasters*

Human Rights and Disasters

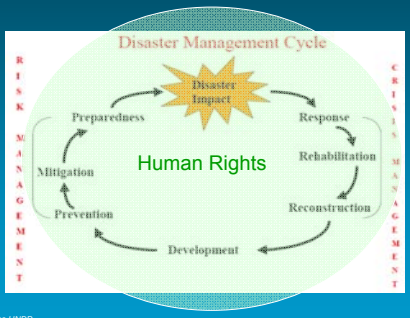
4. A **newly emerging challenge: climatic / environmental refugees and displaced populations**

The impact of climate change on increased frequency and intensity of disasters has led to wider movements of populations to safer areas

there is an urgent need to address the protection of « climatic /environmental refugees and Internally Displaced People (IDPs)'s Human Rights.

- Walter Kalin Report to the Representative of the UN SG on the human rights of the IDPs: "Protection of Internally Displaced persons in Situations of natural Disaster - 5 March 2009

Disaster Management Cycle and Human Rights



Source UNDP

What is the current situation?

- The UN Inter-Agency Standing Committee (IASC), highlighted that national authorities as well as international organizations and NGOs are at loss as to how incorporate Human Rights Based Approach (HRBA) into response and, most of all, **prevention.**

- the UN (IASC 2008) recognizes that HRBA shall guide DRM *"…including pre-disaster mitigation and prepardness measures"* and there are international guidelines which focus on the inclusion of human rights in disasters (http://www.reliefweb.int/rw/lib.nsf/db900sid/KHII-7EE9KM/$file/brookings_HR_mar08.pdf?openelement)

What can be done more by the ISDR system?

- Promoting Human Rights, especially the fundamental ones as the non-discriminatory principle, in front-line agencies' mandates as well as in national DRM and DRR policies.
- Do not re-invent the wheel principle: expand existing legislation, codes and guidelines in order to include a human right perspective in DM and DRR measures.
- Including benchmarks, targets and indicators in DRM and DRR (i.e. HFA monitor) elements that can capture the human rights dimension in disaster management programme implementation.

What can be done more at national level?

- National Platform for DRR shall consider HRBA in its disaster management planning. This include mapping institutions and organizations that are **duty bearers** in ensuring human rights in disaster and profiling the **right holders**, in particularly those that are at risk and vulnerable (see critical issues discussed before).
- National Platforms should involve legal Officers and Human Rights specialists to mainstream Human Rights in Disaster Risk Reduction programmes
- National Governments should be encouraged to promote Human Rights Based national Action Plans for Disaster Risk Reduction

Conclusions

- There is urgency to promote the definition of people-centered Human Rights Based Disaster Risk Reduction Strategies.
- Vulnerability analysis in disaster management shall consider human rights issues among their social, economical and cultural criteria.
- Protection activities in pre-disaster, shall *"[…] create and/or consolidate an environment – political, social, cultural, institutional, economic and legal – conducive to full respect for the rights of the individual" (IASC 2008)*
- Request all Agencies to incorporate Human Rights Based Approaches in international DRM and DRR frameworks - as such, influence an enhanced recognition of human rights protection for all vulnerable groups as part of the Hyogo Framework for Action (2010 HFA MTR)
- Promote global efforts enhancing the recognition of specific human rights consideration for Climatic / environmental IDPs / refugees.

The Universal Declaration of Human Rights – December 10, 1948

Article 3.

Everyone has the right to life, liberty and security of person.

Human Rights In Emergency Situations

Workshop Human rights in Disasters
5th & 6th of November 2009
Hotel Electra Palace, Athens, Greece

Dr. Geert Seynaeve, MD, MPH, MMPhR
geert.seynaeve@attentia.be

Human Rights In Emergency Situations

- *Context*
- *Words… and reality*
- *Health Inequalities*
- *Health Professionals, Medicine and Human Rights*
- *Disaster Health and Human Rights*

Human Rights concept

Human rights
NOT absolute, finished, definite, universal, 'acquis'
BUT incomplete, process, evolution

Perspective:
historical
anthropological (culture)
social (socioeconomic infrastructure & superstructure)

historical context Human Rights

source (justification):

authority (god, "natural" law, a priori, intrinsic logic 'Raison') versus

sociogenic (society, state, conflict & struggle) & psychogenic (individual, emancipation)

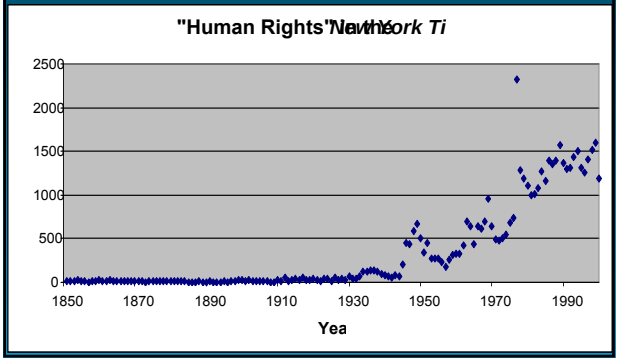
major drivers

- bourgeois-democratic revolutions
- WW2
- Post WW2 political movements

Historical context Human Rights

1. bourgeois-democratic revolutions
   - 19th century ideology in struggle against 'ancien régime' (nobility, clergy, monarchy) **initially** very radical & progressive
   - 1789 French revolution; liberté, égalité, fraternité
2. WW2
   - holocaust
   - Hiroshima-Nagasaki & fire/terror bombings of German & Japanese cities
   - not only inter-imperialist conflict, but also combined with "Second" (USSR) and "Third World" struggle
3. Post WW2: political movements (de-colonization, civil right's, women's liberation, GLBT, mai '68,…)

human rights in the NY Times



Human Rights & reality

1. implementation of official treaties, conventions, declarations
   in reality: enormous inequalities in all domains /fields
2. indifference
   - ignorance? (mass media, almost real-time, des-information?)
   - identity and "distance"
   - compassion fatigue?
3. selective use and instrumentalization for private/national interests, maintaining existing unjust order & inequalities
   e.g. humanitarian interventions

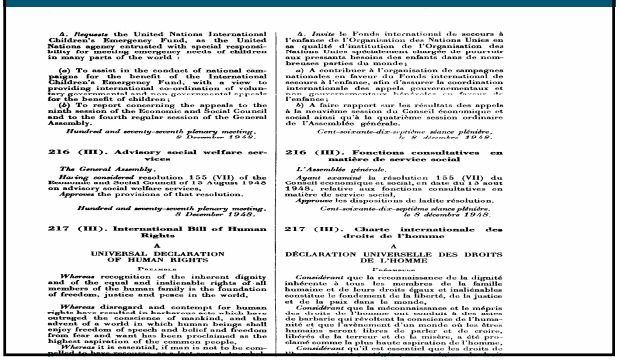
Indifference & distance

Social generation of identification & empathy

David Hume: “Men are principally concern’d about those objects, which are not much remov’d either in space or time … leaving what is afar off to the care of chance and fortune. … The breaking of a mirror gives us more concern when at home, than the burning of a house, when abroad, and some hundred leagues distant.”

Adam Smith : “Let us suppose that the great empire of China, with all its myriads of inhabitants, was suddenly swallowed up by an earthquake, and let us consider how a man of humanity in Europe, who had no sort of connexion with that part of the world, would be affected upon receiving intelligence of this dreadful calamity. … If he was to lose his little finger to-morrow, he would not sleep to-night; but, provided he never saw them, he will snore with the most profound security over the ruin of a hundred millions of his brethren, and the destruction of that immense multitude seems plainly an object less interesting to him, than this paltry misfortune of his own.”

1948 Universal Declaration of Human Rights



A. *Requests* the United Nations International Children's Emergency Fund, as the United Nations agency entrusted with special responsibility for the welfare of parents of children in many parts of the world:

(a) To assist in the conduct of national campaigns for the benefit of the International Children's Emergency Fund, with a view to providing international co-ordination of voluntary campaigns by non-governmental agencies for the benefit of children;

(b) To report concerning the appeals to the sixth session of the Economic and Social Council and to the fourth regular session of the General Assembly.

Hundred and seventy-seventh plenary meeting,
8 December 1948.

216 (III). Advisory social welfare services

The General Assembly,

Having considered resolution 155 (VII) of the Economic and Social Council of 15 August 1948 on advisory social welfare services,

Approves the provisions of that resolution.

Hundred and seventy-seventh plenary meeting,
8 December 1948.

217 (III). International Bill of Human Rights

A
UNIVERSAL DECLARATION
OF HUMAN RIGHTS

PREAMBLE

Whereas recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world,

Whereas disregard and contempt for human rights have resulted in barbarous acts which have outraged the conscience of mankind, and the advent of a world in which human beings shall enjoy freedom of speech and belief and freedom from fear and want has been proclaimed as the highest aspiration of the common people,

Whereas it is essential, if man is not to be com-

A. *Invite* le Fonds international de secours à l'enfance de l'Organisation des Nations Unies en sa qualité d'institution de l'Organisation des Nations Unies chargée spécialement du bien-être aux pressants besoins des enfants dans de nombreuses parties du monde;

a) A contribuer à l'organisation de campagnes nationales en faveur du Fonds international de secours à l'enfance, afin d'assurer la coordination internationale des appels gouvernementaux et non gouvernementaux bénévoles en faveur de l'enfance;

b) A faire rapport sur les résultats des appels à la neuvième session du Conseil économique et social ainsi qu'à la quatrième session ordinaire de l'Assemblée générale.

Cent-soixante-dix-septième séance plénière,
le 8 décembre 1948.

216 (III). Fonctions consultatives en matière de service social

L'Assemblée générale,

Ayant examiné la résolution 155 (VII) du Conseil économique et social, en date du 15 août 1948, relative aux fonctions consultatives en matière de service social,

Approuve les dispositions de ladite résolution.

Cent-soixante-dix-septième séance plénière,
le 8 décembre 1948.

217 (III). Charte internationale des droits de l'homme

A
DÉCLARATION UNIVERSELLE DES DROITS
DE L'HOMME

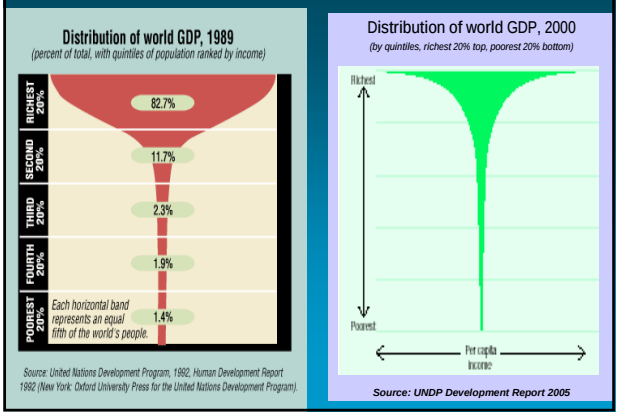
PRÉAMBULE

Considérant que la reconnaissance de la dignité inhérente à tous les membres de la famille humaine et de leurs droits égaux et inaliénables constitue le fondement de la liberté, de la justice et de la paix dans le monde,

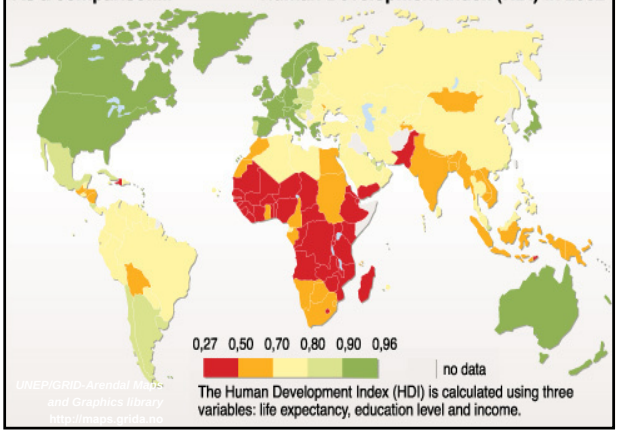
Considérant que la méconnaissance et le mépris des droits de l'homme ont conduit à des actes de barbarie qui révoltent la conscience de l'humanité et que l'avènement d'un monde où les êtres humains seront libres de parler et de croire, libérés de la terreur et de la misère, a été proclamé comme la plus haute aspiration de l'homme,

Considérant qu'il est essentiel que les droits de

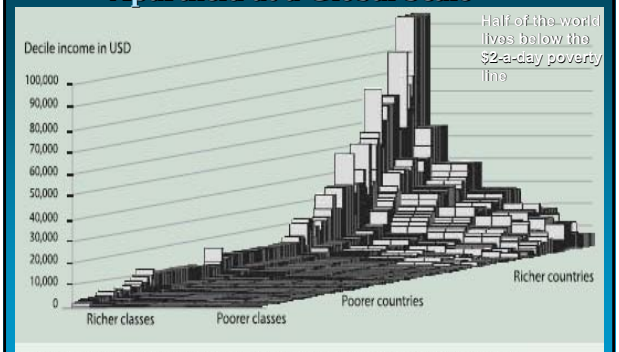
Distribution of World Income



As a comparison... Human Development Index (HDI) in 2002



Apartheid at a Global Scale



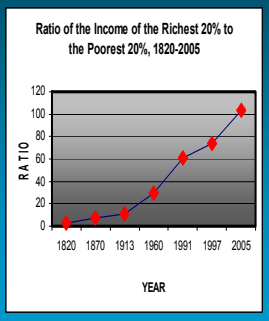
Data source: World Development Indicators, 2005. Online version. World Bank, Washington D.C.

Sutcliffe, 2005. Department of Economic and Social Affairs. WP 2. UNDESA

Historical Trend: Inequality Keeps Rising

Ratio of the Income of the Richest 20% to the Poorest 20%

Year	Ratio
1820	3:1
1870	7:1
1913	11:1
1960	30:1
1991	61:1
1997	74:1
2005	103:1



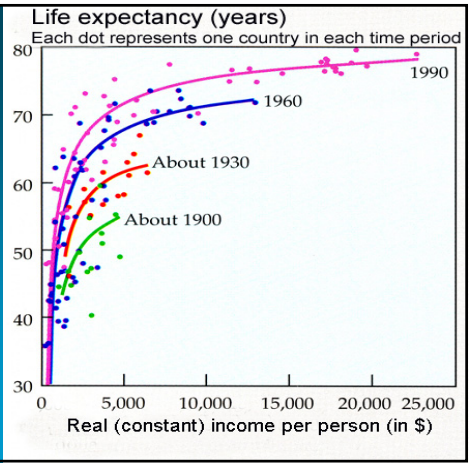
UNDP Human Development Reports 1999 and 2005, New York

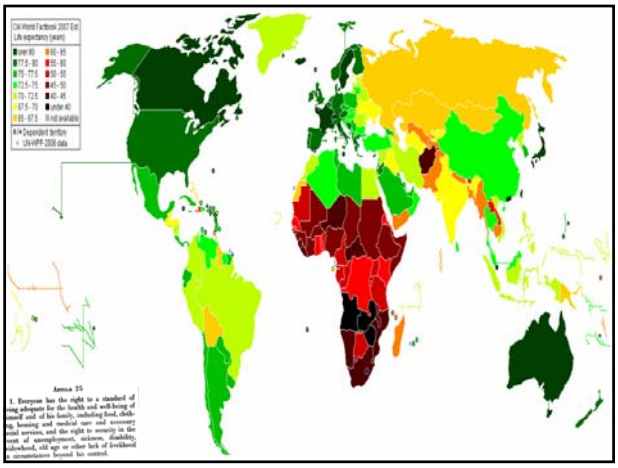
1948 Universal Declaration of Human Rights & Health

ARTICLE 25

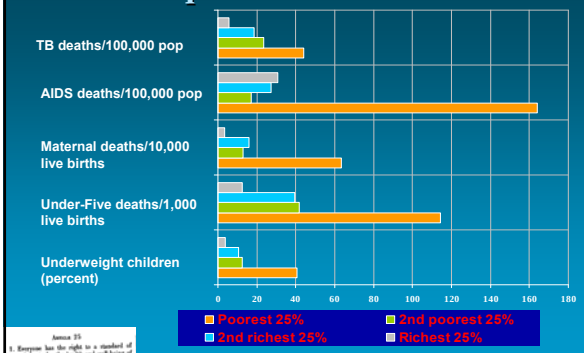
1. Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.

Preston curve



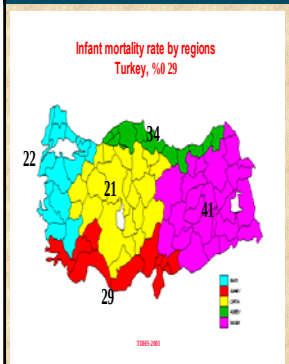


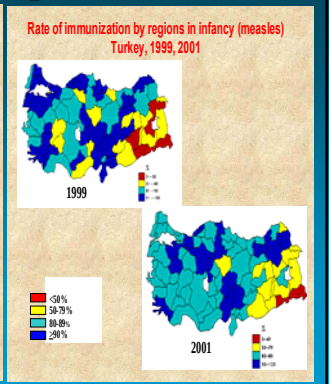
Heath Inequalities



WHO, 2004

Heath Inequalities





Hikmet PEKCAN Turkish Public Health Association, 2006

The poor die young…

Male life expectancy

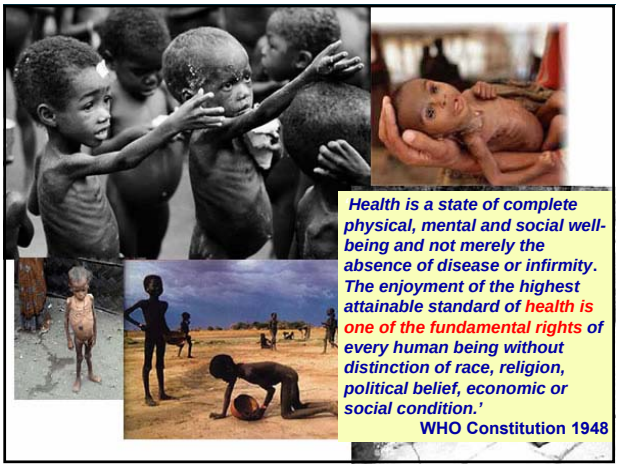
Place	Life expectancy at birth
United Kingdom	77
Glasgow (Lenzie N.)	82
Glasgow (Calton)	54
United States	75
Montgomery County (white)	80
Washington DC (black)	63

Report of the Commission on Social Determinants of Health. WHO 2008
www.who.int/social_determinants/final_report/en

UN Convention on the Rights of Persons with Disabilities

- Convention 9 states:

"Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies […] both in urban and in rural areas."



Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition.'

WHO Constitution 1948

Biomedical research | Health policy and systems research | Social sciences and behavioural research | Operational research

Health Inequalities: disproportion of attention & resources throughout the spectrum of health research

Biological, economic, environmental, political and social determinants of health

'Health is a state of complete physical, mental and social well-being and ***not merely the absence of disease or infirmity*** *The enjoyment of the highest attainable standard of* ***health is one of the fundamental rights*** *of every human being without distinction of race, religion, political belief, economic or social condition.'*

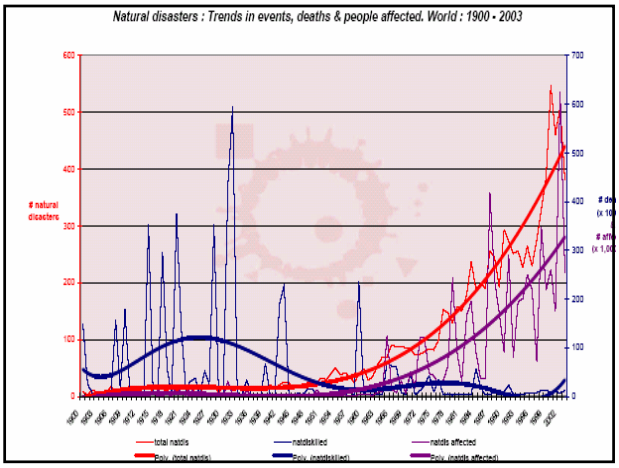
WHO Constitution 1948

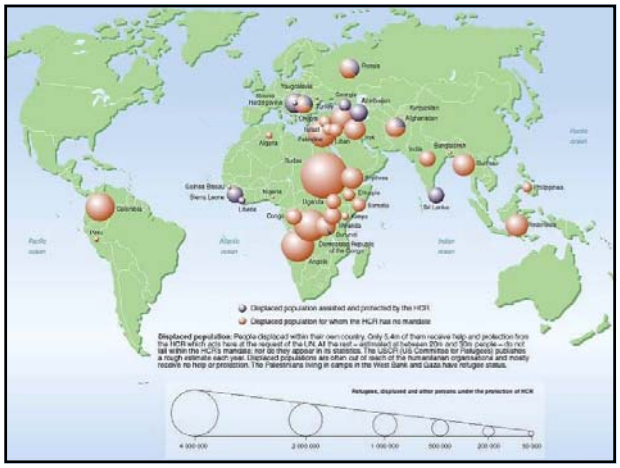
emergency / "disaster" situations

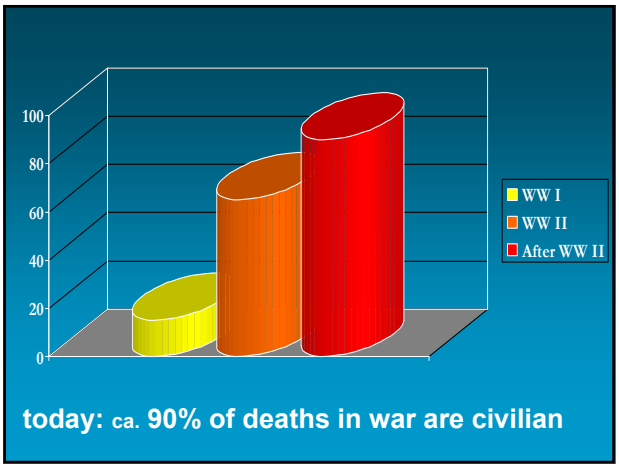
"disasters", major incidents, crises exacerbate existing inequalities & contradictions

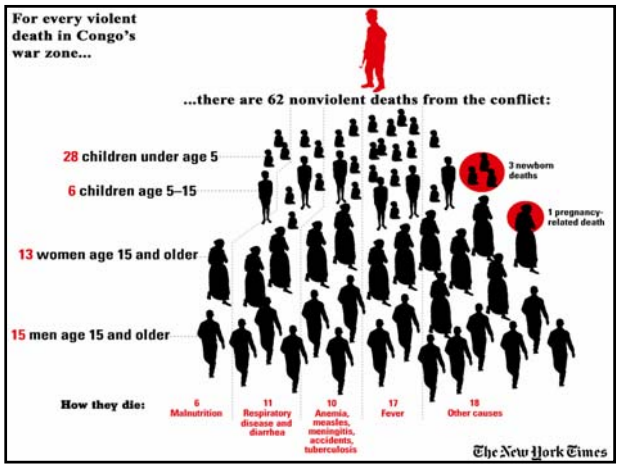
major incidents or disastrous events,
and their health impact

are more and more determined
by socio-ecomic factors
and societal development(s)

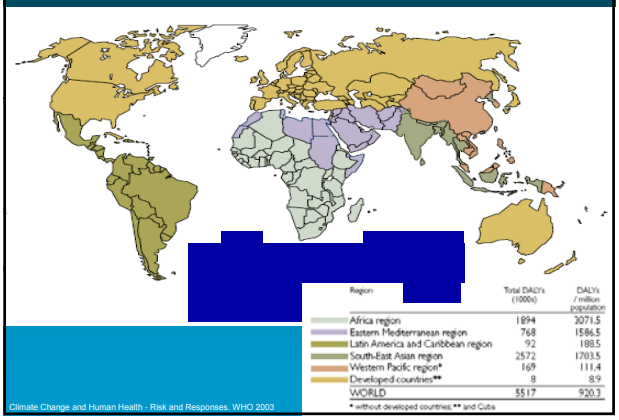

Natural disasters : Trends in events, deaths & people affected. World : 1900 - 2003
natural disasters
total natds
natdskilled
natds affected


Displaced population assisted and protected by the HCR
Displaced population for whom the HCR has no mandate


100
80
60
40
20
0
WW I
WW II
After WW II
today: ca. 90% of deaths in war are civilian

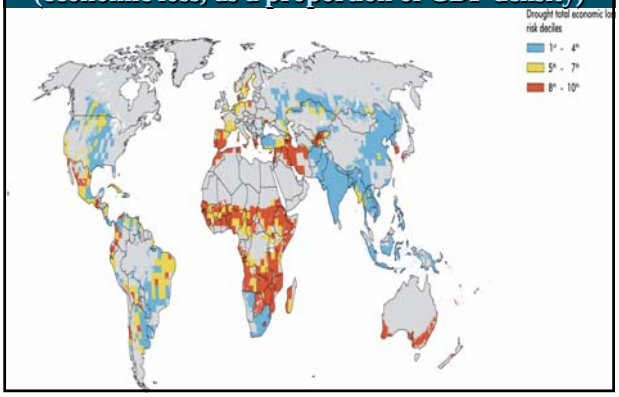

For every violent death in Congo's war zone...
...there are 62 nonviolent deaths from the conflict:
28 children under age 5
3 newborn deaths
6 children age 5–15
1 pregnancy-related death
13 women age 15 and older
15 men age 15 and older
How they die:
6 Malnutrition
11 Respiratory disease and diarrhea
10 Anemia, measles, meningitis, accidents, tuberculosis
17 Fever
18 Other causes
The New York Times

estimated deaths from climate change in 2000



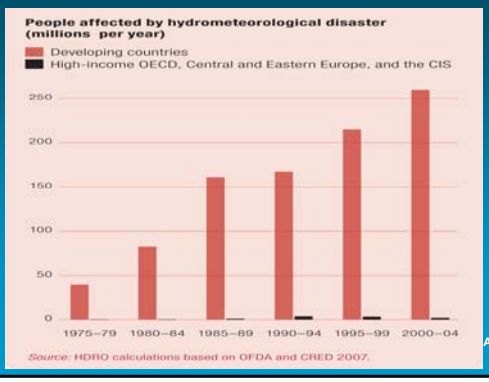
Climate Change and Human Health - Risk and Responses. WHO 2003

Droughts - risk and vulnerability (economic loss, as a proportion of GDP density)



growing burden of climate disasters (UNDP 2007)

floods, droughts, lightning strikes, intensity of tropical cyclones



A. Haines 2008

MIM policies & priorities

activities & funding related to Major Incident Management (MIM) & Disaster Medcine (in Western industrialized countries)

- E&T
- planning
- research
- allocation of resources

are NOT based on scientific assessments of the risk of adverse health impact of events

but are politically (media) driven [hypes]
(except in Belgium)

conceptual model Disaster Medicine

traditionally

"Disaster Medicine"

= Emergency Medicine on larger scale

= emergency physicians (MD) + triage

↓

Multi-disciplinary Health Response to Major Events that Threaten the Health Status of a Community

Disaster Health

Specific approach

(with respect to organization, functioning, resources, decision making, planning, education & training, reporting, etc.)

which is different from daily routine:

For situations (events) where there is a need for an extra-ordinary approach, special arrangements

1) Mass Emergency Situations
2) Public Health Crises

Disaster Health doctrine

1) An adequate Management of Major Incidents is not limited to interventions and services provided by agencies and organizations, but considers (re)actions and activities of people affected, civil society and communities
2) The multi-disciplinary response to the health needs comprises three major aspects:
   1) individual-clinical
   2) collective-public health
   3) organizational-management
3) An adequate response needs to be
   - well prepared (in advance),
   - sustained from the immediate to the long term phase, and
   - evaluated (in order to allow feedback and improvements for future actions). (cfr. disaster management cycle)

Disaster Health doctrine

1) community response > health agencies
2) three major aspects:
   - individual/clinical
   - collective/public health
   - organizational/management
3) time frame:
   - pre-event,
   - during,
   - after/post-event

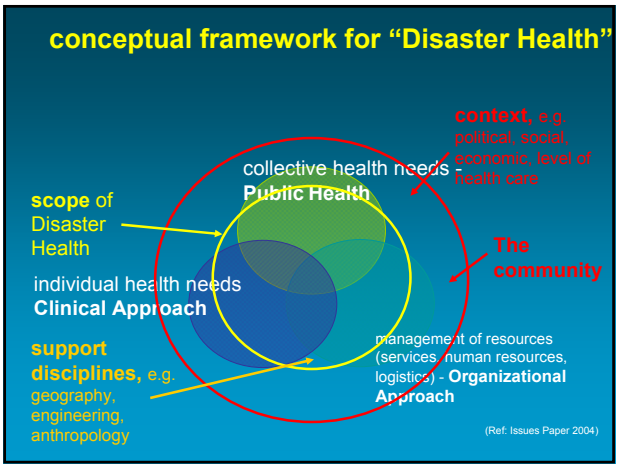
Major Incidents: conceptual framework

(Ref: Issues Paper 2004)

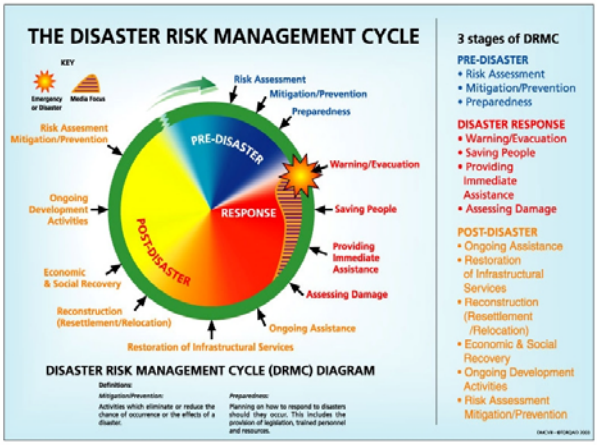
conceptual framework for planning, E&T, response, evaluation, etc.

(Ref: Issues Paper 2004)

conceptual framework for "Disaster Health"



(Ref: Issues Paper 2004)



Health, Medicine & Human Rights

long held view that "Medical Ethos" was immutable

its values were stable despite individual and cultural

Variation immune to social, political, and economic pressures

⇒ethical codes: elaborated Hippocratic Oath
(Primum non nocere - first, do no harm)

Health, Medicine & Human Rights

1. general historical societal context
   - era, period, conjuncture
   - socioeconomic development, relationship of social forces, evolution of science & technology, culture, mentality
2. specific position of health practice and health professionals in society:
   - from art to industry
   - from non profit to commercial practice
   - position and (hyper)specialization of health professionals
   - body partitioning and de-humanization (↔compassion, relief of suffering, healing, holistic well-being)
3. particular medical (health) ideology, culture, mentality

Health, Medicine & Human Rights

4. dynamics of biomedical ideology, views, notions and values
   - epistemology (what is knowledge), what is science (Popper, experimental & quantitative "evidence")
   - environment & health (determinants): from the paradigms of adaption, sanitation, uni-causality (germ theory) to transition theories (epidemiological, demographic) and behavioral health promotion (individual lifestyle choices)
   - genetics (from natural selection of species to social darwinism)
   - dominance of clinical medicine (≺Public Health), molecular biology (≺life sciences)

Health & Human Rights

Eugenics (1883, Francis Galton): programs in USA, Britain, and Germany

Racial Hygiene (1894, Alfred Ploetz): "Untermensch";

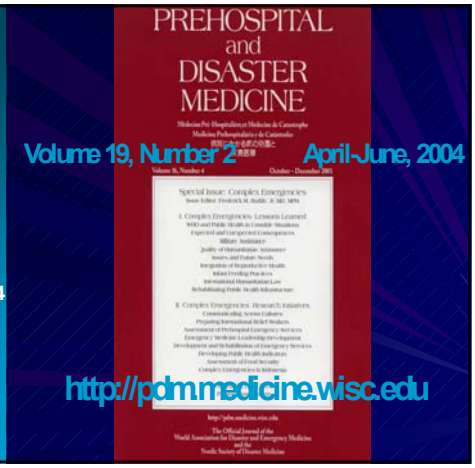
- sterilization laws USA (involuntary sterilization of 60.000 persons), upheld by Supreme Court in Buck v. Bell, 1924: "It is better for all the world, if instead of waiting to execute degenerate offspring for crime, or to let them starve for their imbecility, society can prevent those who are manifestly unfit from continuing their kind" – Justice Oliver Wendell Holmes
- racial segregation

Scientific Validation & Disaster Health

1. internal “logic”, coherent, rational, systematic (conceptual framework, theory, doctrine, paradigms)
2. evidence-based: relation with reality (empirical data, confirmation by testing & feedback)
3. ethical

! Pas de science sans conscience

WADEM
An Issues Paper,
Education Committee working Group,
July 30, 2004



Bioethics
in Emergency and Crisis interventions

Human Rights in Disasters: search and rescue operations in disasters especially for vulnerable people

ATHENS, 5 November 2009

Beatrice Toussaint, Officer in Chief for Scientific Research, Belgian Ministry of Health

What's about?

- (Bio)Ethics
- Emergency
- Crisis
- Interventions
- Vulnerable people, Disabilities

(Bio)Ethics

The awareness of vulnerability among other people in front of which one wears some liability

The long lasting work we agree to share with others,
with the aim of reducing as much as possible gaps between our claimed values and our effective actions.

Mass Emergency

Sudden event located in space and time causing health damages and determining overwhelming of response capacity by the needs

In emergency, we are facing ***Quantitative scale***
"an accident, an answer; a larger accident, a larger answer

A wide range of knowledge has been clarified : plans, training could be adequate to make ready-made responses effective

Contemporary Crisis

Crisis components affect not only the event but the whole system in a chaotic environment, loosing common marks.

*Facing **Qualitative mutations,** we need to think of our vulnerabilities.*

When the world mutates the ruling theories and best practices become outmoded, and even lethal pitfalls.

*After having been focused on the answers practices, we must shift to the **questions** and to invent new intelligence, attitude, and practice.*

What's about?

- Interventions involve the society as a whole,

We are talking about decisions makers, rescuers, health professionals not only,

Citizens and among them, Vulnerable people, Disabled

Comments

Loss of control wakes centuries old fright up

Overplaying at risks of loosing liability

"Instrumentalization": each is played against other: authority, media, scientist, lobbies, public opinion

Pieces of knowledge scattered here and there , without comprehensive overview and understanding

Limits of managerial culture

Communication confusion

Comments

Plans are not providing strategic reflections

Plans are tools helping response, responsible and professionals are seeking automatism in response, without re-thinking their relevance

As we leave the field of well identified emergencies to be facing unforeseen issues, we must shift to the questions: what are essentials happening? major traps ? the actors for both diagnosis and actions ? The useful networks? Which are first initiatives making sense?

Precautionary Principle

Precautionary Principle should remain proportionate and based on / submitted to experiment feedback;

These conditions are often omitted and its implementation is locking and compelling, what prevents the achievement of useful feedback.

Its misuse creates Illusion of no risks option exists: the threat will be avoided; the worst will not occur.

In common mind, it is seen as risk assessment
It can't replace rigorous risk identification and assessment of benefits / risks

Opposite to the « art de la prudence » widening the field of thoughts in a multidisciplinary frame for developing a reflection in depth on the problematic situation.

Risk perception

Societal paradox : regarding risks exposure

Any risk is refused as regards scientific progress

Risks (sometimes high risks) are accepted as regards technology and own fun or comfort

Main ethical principles

Are most often addressed as general considerations in theoretical debates far from the scene.
They aren't put into practice or are swept by the reality :

priority setting in scarcity:
- Efficacy /efficiency
- Equity

are not properly addressed, in absence of solidarity robust mechanisms

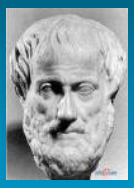
Are (bio)ethical approach and practice of any relevance?

Ethics sets human beings in the core of concerns.

Citizens, decision makers, help providers, all of us are confronted with complex and turbulent systems and situations

(Bio)Ethics provides a wide area for **questions**,
hosts **uncertainty** fields
emphasizes subjectivity
entitles judgments

What can't be else than it is



ανανκη

Human being, as subject, accepts who he is, his own limits;

he will not perform everything,

but what he can do, he is reliable to maximize it within dialogue

Ethics and Education

Our mistakes are the strongest basis for improving our learning abilities.

Ethical work is seeking for
the least error,
the least harm,
the least restraint.

Vulnerable people

In an emergency (characterized by a lasting overwhelming of available means by the needs) several people don't get help.

Who will get help ? who will not ?
This not actually a rationale outcome of prioritization

By law or by fact, it can be observed that excluded are isolated people living outside the welfare institutions : the poorest and the foreigners (out of the administrative rules), the elderly devoid of family support, they all are commonly named hard to reach.

Besides these hard to reach, are the disabled

People with sensory or motricity disabilities or mental disorders.

Disabled aren't a homogeneous population.

Disability doesn't automatically limit understanding and capacity of care of himself.
It raises frontiers in everyday's life.
It will be especially true in a emergency or crisis time.

Disability can alter perception, learning abilities as well as individual mobility…

Disabled?

People with disabilities must be considered as they are; with specific needs; adequate information, adequate recommendations transcriptions, adequate handling.

In such extreme circumstances as crisis time, we all have to face the same dilemmas with our abilities, our skills, our limits.

Disability is revealed and stressed by particular situations and environment;

to some extent, everybody has been, is or will be disabled.

PROMYLIFE project: "How to Better Protect My Life in Major Emergencies"

Human rights in disasters – Workshop
Athens, 5-6 November 2009

Development Enterprise of Achaia Prefecture
Eleni Syrrakou

PROMYLIFE

European Commission
Directorate – General for Environmen
Unit ENV. A. 3 – Civil Protection

Civil Protection Financial Instrument - 2007
PROMYLIFE project: **"How to Better Protect My Life in Major Emergencies"**

ProMyLife –

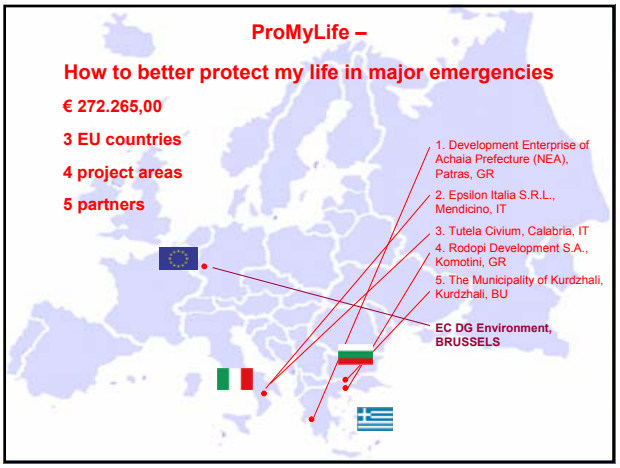
How to better protect my life in major emergencies

€ 272.265,00

3 EU countries

4 project areas

5 partners



The Partners

Development Enterprise of Achaia Prefecture (N.E.A.)	www.nea.gr Patra, GR
Epsilon Italia S.R.L. A private SME	www.epsilon-italia.it Mendicino, IT
Tutela Civium A CP volunteers association	www.tutelacivium.it Calabria, IT
Rodopi Development S.A. A Municipalities joint-stock company	www.anro.gr Rodopi, GR
The Municipality of Kurdzhali Local authority. Borders with Rodopi.	www.kardjali.bg Kurdzhali,BU

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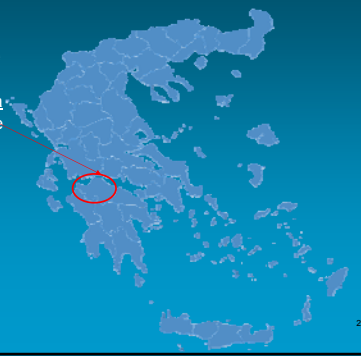
Development Enterprise of Achaia Prefecture (NEA)

NEA is a non profit organisation with sole shareholder the **Prefecture of Achaia** (the largest prefecture of Western Greece) with main aim to contribute to the *development* of the region.



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Objective

Main objective of the Enterprise is

to plan, process and implement development activities,

which will contribute to the economic, social and cultural, symmetrical and sustainable development

of the Prefecture of Achaia

focusing on the environmental protection and maintenance.

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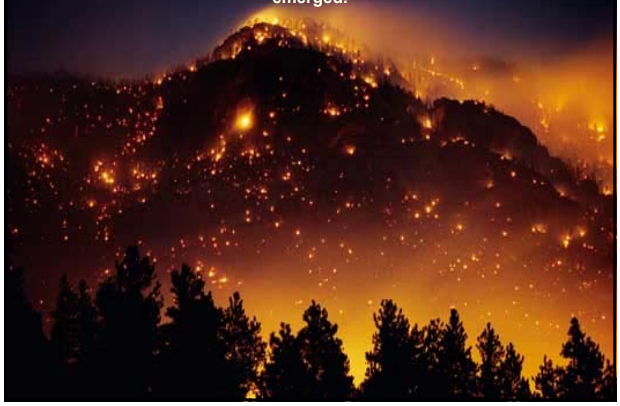
The problem

Climate change has caused adverse local weather conditions: flash floods, landslides, river overflow forest fires, heavy snowfalls, heat waves etc.

After the extended summer 2007 forest fires in Southern Europe, the need for enhancement of the Civil Protection has been more than ever emerged.



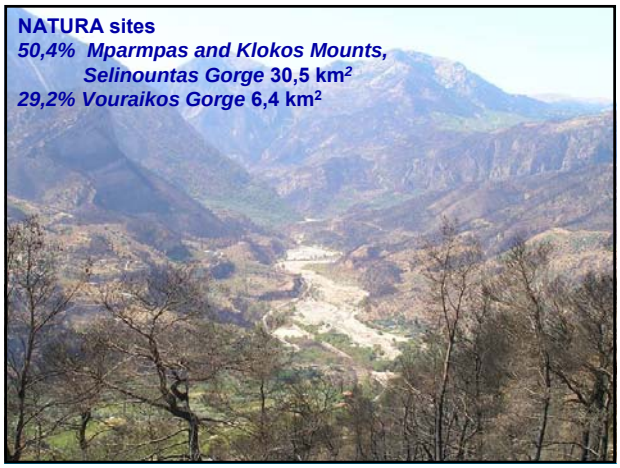
Problem Description

In the northeastern Achaia
3 civilians died, 184 houses were completely destroyed, dozens of villages were devastated, thousands of animals and hundreds of farms were burnt.

300 km² of forests, 40km² of corps were burnt

Totally 12 Municipal Districts suffered extensive damages and were declared fire-stricken

NATURA sites
***50,4% Mparmpas and Klokos Mounts, Selinountas Gorge* 30,5 km²**
***29,2% Vouraikos Gorge* 6,4 km²**



Complete destruction of vegetation in the burnt area of Aigialeia

Floods and soil erosion – the effects on the drainage basins

LANDSLIDES – STORMS - FLOODS - MUDFLOWS - FALLS

- Intense inclines
- Geological status
- Human interventions in the streambeds
- Burnt areas particularly charged

Falls of rocks and blocked pavement in the mountainous provincial network of Achaia ***(600km at 500-1000m altitude)***

PROMYLIFE

The *self-protection* capability of citizens is proved not to be adequate to face these adverse/extreme weather conditions.

Thus, as a prefecture entity with major priority to civil protection and creation and maintenance of infrastructures we have been considering of the need to better protect citizens' lives in major emergencies.

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Dimensions of cooperation

- Internal project management and financial monitoring procedures
- EU cooperation dimension at regional/ local level
- Mutual exchange of experiences
- Technical know how and best practices transfer
- Cross border cooperation development
- Cooperation with CP authorities and experts
- Local actors involvement: volunteers, non governmental organizations
- Vulnerable groups and general public

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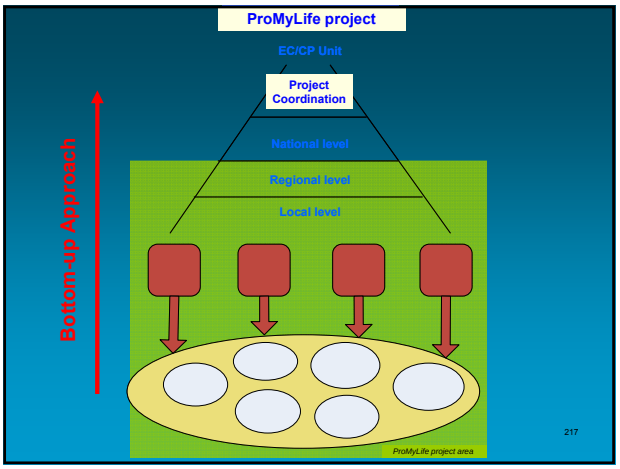

Vulnerable groups

- People with dissabilities
- Elderlies
- Children

Every citizen who is not properly trained or informed, in dealing with a state of emergency, is potentially a vulnerable population group member.

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Project Aims

- To identify actual **citizens' needs**
- To improve the **preparedness** of the public and in particular of the vulnerable groups (elderly, children, disabled and disadvantaged people, etc.) in major and extreme events and to adapt to the climate change effects
- To enhance the **emergency planning procedure** and emergency/public utility services co-ordination in major emergencies.
- To prevent **natural disasters' impacts** through an improved knowledge in vulnerabilities issues and safety behavior competences

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'Working methods - Events'

- Approach of vulnerable groups (elderly, school community, disadvantaged) at local level
- Suggested Self protection techniques/best practices presentation and pilot application
- Promoting **civil participation** at local/regional level through local societies and NGOs in co-operation with local authorities and emergency services.

- Daily regional/local events: Tabletop exercise
  Cross-border study
  School events
  Media events
  Seminars/meetings.

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The Collaborators - Potential Users

Institutions/Services that expressed interest for the Project outcomes:

- CP National authorities, Greece
- Earthquake Protection Organization, Athens
- Region Western Greece, Patra
- Achaia Prefecture Emergency Services
- Region Calabria, Italy
- CP regional Directorate, Bulgaria
- Municipalities and volunteers in all 3 MS.

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Results & Outcomes

- Informative and educational material for the public and the vulnerable groups
- Interaction among partners and local communities CP actors
- Guidelines development (self protection)
- Organisation of CP events
- All the above adapted to the actual citizens needs, emphasis to vulnerable groups

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Komotini, Greece 18 July 2008

- **Open public meeting "Cross Border Civil Protection Issues"**
- **Visit to the premises of the Special Unit of Disaster Management - Komotini**

Organised by ANRO

Cosenza, Italy 17-18 November 2008

- Conference “Emergency management: from the Institutions to the Volunteers”
- Visit to the Civil Protection Operative Centre of the Regione Calabria (Germaneto – CZ)
- Civil Protection Exercise in the Municipality of Piane Crati (CS)

Organised by EPSILON ITALIA & TUTELA CIVIUM

Patras, Greece January 12, 2009

Consultation Meeting of CP experts for the program PROMYLIFE,

Prefecture of Achaia

Only The Trained Citizen is a Safe Citizen

Patras, 23 June 2009

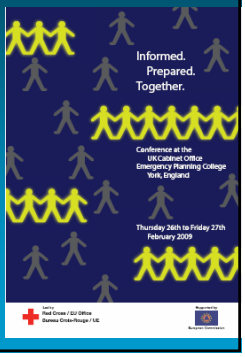
Table Top Exercise

"How to Better Protect citizen's Lives in Major Emergencies"

The scenario pertained to the confrontation of multiple events (earthquake, forest fire and landslides), laying emphasis on the rescue of the most vulnerable citizens (children, elderly, disabled).

Cooperation with other projects

- "Informed Prepared Together" workshop of Red Cross/EU Office at Brussels in 6-7 October 2008. Project **"Inform and prepare communities to work together in CP"**.
- EU-wide conference, at York (UK) in 26-27 February 2009.
- Site visit in Patras in 3 June 2009. Members of the Red Cross EU Office presented the family of products.



Children

"In case of a natural disaster, there are a lot of people who can help us. However, if we know what we must do and have prepared as a family, we will handle a possible disaster in a better way.

No matter how sudden or unforeseen a natural disaster is, it does not last for a long period. Children may need to change their daily routine for a while but everything will come back to normal day by day. "

People with disabilities

- **WE ARE AWARE - WE ARE PREPARED**

Community capacity building, effective networking and social care programs are valuable tools to approach, inform, educate, train and maintain contacts with the most vulnerable group members in a community.

The support systems include

- Caregivers and caregiver organizations,
- Community-based organizations,
- Volunteer organizations and NGOs

Developing, maintaining, and practicing specific emergency plans

Effective networking

Creating a personal support network can help persons with disabilities to prepare for and cope with an emergency. The network may consist of family, friends, relatives, neighbours, and co-workers.

It should consist of people who:

- Are trusted.
- Could check if assistance is needed.
- Are aware of capabilities and needs.
- Can offer help within a very short time.

Community capacity building

Identify and register the community's vulnerable populations:

- ✓ Who the vulnerable community members/groups are,
- ✓ Where they live,
- ✓ What their actual needs are, and
- ✓ Who are in contact with them and may provide help to them

Social Care Programs offer good possibilities in obtaining contact details and information about the elderly, persons with disabilities, people with chronic diseases and reaching them when needed.

'Home Care' (or **'Assistance at Home'**) - EU supported social program

Modern technology

Modern technology and telecommunication capabilities can be critical to connecting persons with disabilities with their friends and family and with the community and its resources.

Modern technology tools and systems can be used to enable the functioning of formal and informal social networks in a community, enhancing their resilience before, during, and after a disaster.

Communication strategy

- Prepared **before a disaster occurs.**
- **During disasters** citizens require an updated communication with timely, honest and accurate information from a trustful source, about the progress of the disaster, guidelines (what to do and what to avoid) and protective measures.
- Continue the communication **in the post disaster period.** Those affected need a long and adequate social and psychological support. *They should be treated humanely, with respect to their particular needs.*
- **The voluntary sector** - a great resource before and after a disaster. Volunteers constitute an integral part of the community and citizens trust them.
- **The media** - A key element in risk and emergency communication.

Towards a preventive policy

A preventing policy should follow action lines as:

- **Identify and register the community's vulnerable populations:**
- **Transmit clear and concise messages repeatedly to all.**
- **Deliver messages via multiple channels and modes of communication.**
- **Computer technology access into disadvantaged communities.**
- **Develop ongoing and proactive sustainability mechanisms in society.**

Effective risk communication is an ongoing process, not a single act.

Earthquake Protection Policy for People with Disabilities in Greece

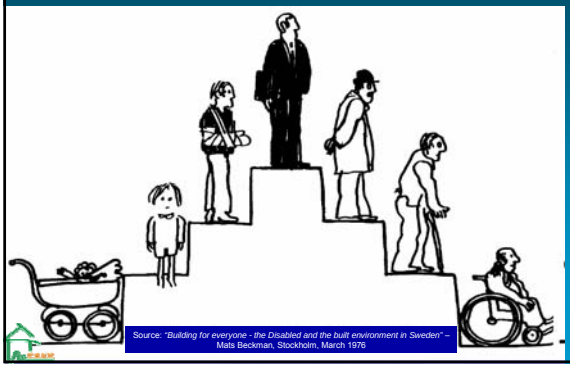
C. Gountromichou
Geologist, MSc
Earthquake Planning and Protection Organization (E.P.P.O.)

People with Disabilities

People with Disabilities today represent:

- **over 10% in the world (about 650 million of people)**
- **15% of the EU population**
- **around 10% in Greece**

Earthquake Protection Policy for everyone…



Source: "Building for everyone - the Disabled and the built environment in Sweden" – Mats Beckman, Stockholm, March 1976

People with Disabilities

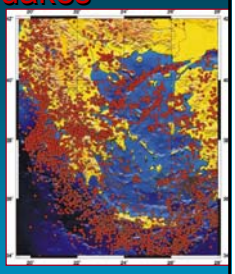
"Persons with disabilities have the right to live independently and participate fully in all aspects of life on an equal basis with others in information, communications and other services, including electronic services and emergency services."

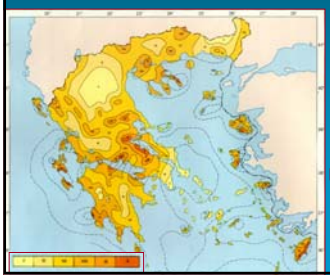
(Source: Article 9.1, UN convention on the rights of persons with disabilities)

…tells what states shall do, indicates what all should do

Greece - Earthquakes

Greece is one of the most seismically active countries of the world





- Every part of our country has been effected by a strong earthquake in the historical times

Earthquake Planning and Protection Organization (E.P.P.O.)

E.P.P.O. is the compentent authority for processing and planning the earthquake protection policy – in accordance to governmental directions – as well as coordinating the public and private resources for the implementation of this policy

- One of the main actions: is the information and the education of the greek people on seismic protection issues

Education – Disaster Reduction

Disasters can be substantially reduced if people are well informed and motivated towards a culture of disaster prevention and resilience, which in turn requires the collection, compilation and dissemination of relevant knowledge and information on hazards, vulnerabilities and capacities

World Conference on Disaster Reduction
18-22 January 2005, Kobe, Hyogo, Japan

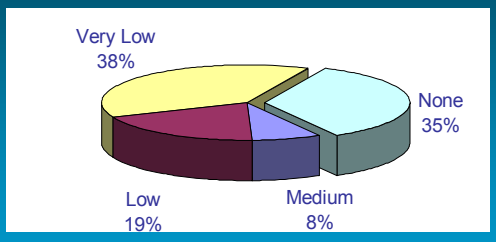
E.P.P.O. – People with Disabilities

Working towards disability equality - actions

- 1. Research
- 2. Textbook: "Learning about earthquakes and Earthquake Protection Measures – Guidelines for People with Disabilities"
- 3. Dissemination of the information and knowledge (lectures, seminars, e.t.c.)
- 4. Education - Earthquake Drills

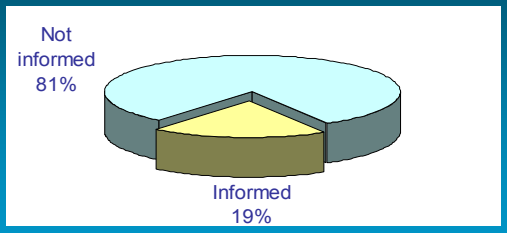
1. Research

Level of Knowledge of People with Disabilities for Earthquakes and Protection Measures



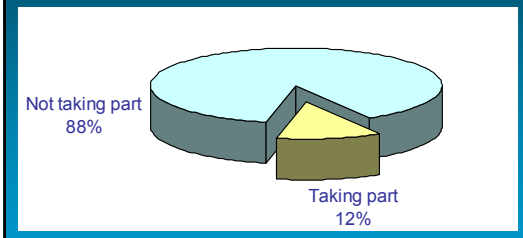
1. Research

People with Disabilities who have been informed about Earthquake Protection Measures



2. Research

People with Disabilities who have been taking part to Earthquake Drills



2.The Textbook…

- addresses the People with Disabilities
- is divided into two parts:
  - information about earthquake
  - earthquake protection measures
- specific guidelines for each type of disability are marked differently

2. The Textbook…

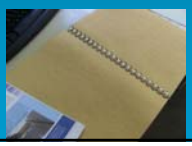
Types of Disabilities

- Mobility impairments
- Cognitive impairments – Speech Communication impairments
- Visual impairments/Blindness
- Hearing impairments/Deafness

3. Information - knowledge

E.P.P.O.

- is programming seminars – workshops and training courses to students, teachers and educators in Special schools
- is planning to set up specific leaflets for each disability



3. Information - knowledge

The whole textbook

- has been translated to **Braille** language and to **audio message** for MP4 players,
- is under the translation procedure to **sign** language for people with auditory disabilities

3. Information - knowledge

The whole textbook

- is scheduled to be translated in **Makaton** and **Easy-to-Read,** both are languages for people with cognitive disabilities
- has been already uploaded on the web in several sites

4. Education - Earthquake Drills

Many earthquake drills have to be taken place, for each type of disability, in order people with disabilities to:

- act correctly and instinctively in case of a real earthquake
- identify gaps and challenges

And for E.P.P.O., these drills help to

- form a seismic culture in Greece
- further the earthquake-disaster reduction

Earthquake Protection Measures for everyone…

- **BEFORE** the earthquake
- **DURING** the earthquake
- **AFTER** the earthquake

BEFORE the earthquake

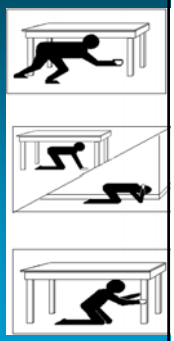
Be prepared

To cope with a destructive earthquake
having the minimum effects to ourselves
and to our environment
and to recover easy after it

DURING the earthquake

Main guideline

- DROP to the ground
- TAKE COVER by getting under a sturdy table
- HOLD ON until the shaking stops



If there isn't a table or desk near you, cover your head with your hands

AFTER the earthquake

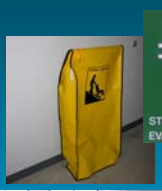
- Evacuation to an open-predefined place

Education - Earthquake Drills

Education - Earthquake Drills

Education - Earthquake Drills

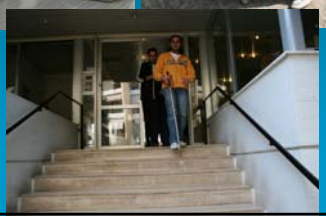
Evacuation



Education - Earthquake Drills

In small ages and in multi-disabilities cases

Education - Earthquake Drills



Future Planning & Considerations…

- E.P.P.O. is proposing to become obligatory the implementation of earthquake drills at Special schools
- All the actions have to be oriented to strength earthquake preparedness for having effective response at all levels
- All people with disabilities get a culture of safety and earthquake resilience

National Health Operations Centre (NHOC).
Emergency plans & actions

Dr. Panos Efstathiou, MD
Commander
Hellenic National Health Operations Center

The need for health crisis management

- International and regional events with health impact
- Health threats and challenges
- Growing and migrating populations
- Climate changes
- Dynamic nature of the Healthcare field

The necessity for a health crisis center in Greece

- Natural disasters (earthquakes)
- Climate changes (forest fires, floods)
- Communicable diseases, especially zoonoses
- Illegal migration
- Need for broad health coverage of the population
- *Health crises may happen and the nation must be prepared to manage them accordingly*

Basic features of health crisis management

- Preparedness
- Knowledge on possible health threats
- Organization of operational and strategic plans
- Cooperation with other nations in crisis management
- Technological support

Basic characteristics of healthcare managers

- Familiarity with the health sector
- Team leadership
- Broad spectrum knowledge
- Constant update
- Proper operational planning
- Strategic thought and action
- Social sensibility and humanity
- Communication skills

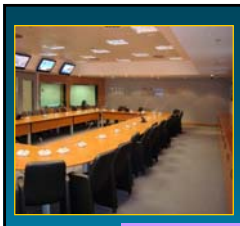
The National Health Operations Center

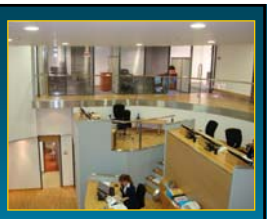
The National Health Operations Center was founded in 2004 by the Hellenic Ministry of Health in preparation for the Athens 2004 Olympic Games

Ever since, it serves as a major supervising and coordinating organ for the healthcare system

The National Health Operations Center today

- A fully operational center with numerous capabilities at both national and international level that,
  - Functions in a national and European level
  - Promotes cooperation and coordinated action based on existing health policies

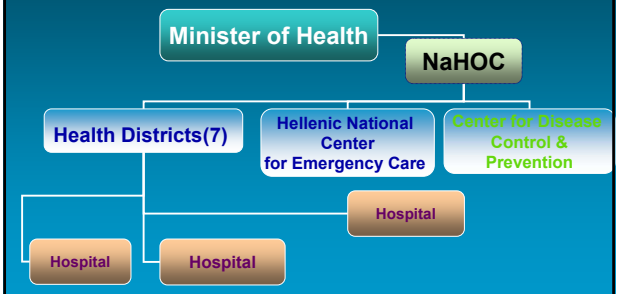




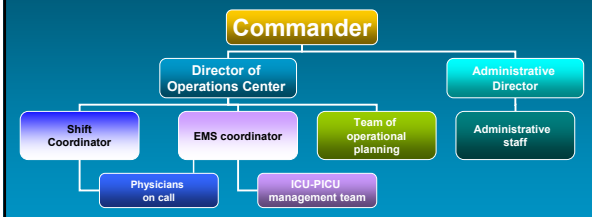
National Health Operations Center

National Health Operations Center Divisions

Basic structure of the Health Sector



NaHOC structure



Fields of action of NaHOC

- Management of emergency medical services' system
- Health crises due to major disasters
- Public Health
- CBRN threats
- Health crises due to climate changes
- Humanitarian approach to victims of natural or manmade disasters
- Health coverage of major events (athletic, social)
- European cooperation
- Education of health crisis managers

Operational plans

- *Philoktetes*
  (CBRN threats)
- *Perseas*
  (Hospital emergency situations)
- *Artemis*
  (Flu pandemic)
- *Sostratos*
  (Earthquakes)

NaHOC links

- General Secretariat of Civil Protection
- National Operations Centers
- NATO
- WHO
- E.U (EWRS, RAS-BICHAT)
- ECDC-CDC
- Health Protection Agency
- INFOSAN

Interventions on the Health Sector

- ✓Surveillance and coordination of the alternating emergency service system on Attiki and Thessaloniki
- ✓Supervision of the National Center for Emergency Care (Hellenic EMS)

Interventions on the Health Sector

- Management of ICU and PICU beds
- Coverage of health needs in insular Greece
- Coordination of patient transfer from the periphery to tertiary hospitals
- Interventions on the private sector, if needed

Interventions on the Health Sector

- Prompt record keeping
- Documentation of events
- Analysis of data and actions aiming at self improvement and promotion of healthcare services

Major disasters

Coordination of Health sector operations in case of major disasters:

Earthquakes
Floods
Fires
Motor vehicle accidents
Airplane crashes

Pandemic Flu H1N1

- National Plan
- Antivirals Stockpile
- Vaccines Stockpile (8 million doses)
- Vaccination Plan
- Cooperation with other organizations

National Health Operation Center actions during the 2009 fires

- Crisis management
- Organization of medical care
- Protection of public health
- Financial support
- Psychosocial support

National Health Operation Center actions during the 2009 fires

EVACUATION of,

- 1 General Hospital
- 1 Psychiatric Hospital
- 2 Child Care Organizations
- 3 Elder Care Organizations

- All patients treated with respect and although the press wanted their names not a single name was published.
- The role of the Greek church was essential.
- After the restoration of the Hospitals and Organizations all patients returned back.

Helios plane crash August 2005

NaHOC actions

- Immediate implementation of crisis management plan
- Coordination of 7 large hospitals, EMS and Hellenic CDC
- Psychiatrists and psychologists directed to support the victims' families
- Transition of nursing staff to the area of the tragedy
- Creation of media center in the area
- Repatriation of the body remains

Bioterrorism

Handling of threats and mass destructions from

- ✓ Chemical
- ✓ Biological
- ✓ Radiological
- ✓ Nuclear factors

Healthcare management of illegal immigrants

- ✓ **Handling of massive entrance of illegal immigrants in cooperation with the Hellenic Center of Disease Control and Prevention**

  Operational Plans

  «Balkanio»

  «Poseidonio»

Healthcare management of illegal immigrants

- Training by NaHOC and HCDC of authorities at ports of entry in personal protection measures and safe handling of illegal immigrants
- Documentation of incoming immigrants
- Cooperation with HCDC in epidemiologic surveillance and contact tracing
- Full pharmaceutical coverage of patients from entry to exit from the country

Humanitarian role (examples)

- Gaza 01/2009
- Libya 12/2008
- Myanmar 5/2008
- Albania 3/2008
- Sri Lanka-Tsunami 12/2004

Humanitarian aid to Gaza

Humanitarian aid to Libya

Humanitarian Aid to Myanmar

- Mission consisting of group of experts
- Provision of medical support (antibiotics, fluids)
- Provision of tents for the homeless

Humanitarian aid to Albania

Humanitarian aid to Sri-Lanka

- Operational plan “Argonaftis”
- Organization of floating hospital
- Medical and pharmaceutical coverage of the population
- Cooperation with Interpol in victim recognition

Health coverage of major athletic events

- Olympic Games “Athens 2004”
- NatWest Island Games XII 2007
- Champions League 2007
- 26th Classical Marathon of Athens 2008

In the near future…

- Special Olympics 2011

Special Olympics 2011

- Agreement of cooperation between *NaHOC-Hellenic Ministry of Health and Social Solidarity* and *Special Olympics Hellas organizing committee* in September 2009 for the health coverage of the Special Olympics 2011 that will take place in Greece

ΥΠΟΥΡΓΕΙΟ ΥΓΕΙΑΣ & ΚΟΙΝΩΝΙΚΗΣ ΑΛΛΗΛΕΓΓΥΗΣ

Special Olympics Hellas

The European dimension of the National Health Operations Center

Examples of NaHOC cooperation with European Agencies

- Health Security Committee
  Protection of population health in events with potentially international impact
- WHO-Europe
  Implementation of International Health Regulations
- European Center for Disease Control and Prevention
  Epidemiological surveillance in cooperation with Hellenic CDC

Examples of NaHOC cooperation with European and other Agencies

- Participation of Greece in Euro-Mediterranean Partnership
  monitoring of Public Health matters and exchange of knowledge and experience
- Participation of Greece in Black Sea Economical Cooperation-BSEC
- Several partnerships with EE and non-EU countries in matters of foreign citizens' health and provision of humanitarian aid in case of disaster.

Participation in tabletop exercises

- ✓ Exercise Aeolus (European union)
- ✓ SEESIM 2008 (NATO and Southeastern European countries)
- ✓ Exercise United Horizon (European Union)
- ✓ Exercises New Watchman and Common Ground (European union)
- ✓ Several national exercises (health sector, law enforcement, internal affairs)

Educational activities

- Educational courses for Hospital Managers
- Educational courses for postgraduate students of crisis management courses
- Participation in exercises
- Participation in conferences and courses within the EU

At a glance

- Dealing with and handling health crises demands the *cooperation* of several authorities under central guidance
- The role of NaHOC is extremely valuable in *managing crises* in the health sector
- Additionally, NaHOC, is the place where, devoted persons, through *experience and training*, can grow to become excellent health crisis managers in the future

Organization of searching and rescue operations in Ukraine: attention to vulnerable groups of population

Volodymyr Demchuk

Ministry of Ukraine of emergencies and affairs of population protection from the consequences of Chernobyl catastrophe

Sergiy Zibtsev

National University of Life and Environmental Sciences of Ukraine

Content

1. Preparedness for wildfire incident in the Chernobyl Exclusion Zone: a worst case scenario and vulnerable groups of populations
2. Organization of search & rescue operations in Ukraine during large scale emergency situations

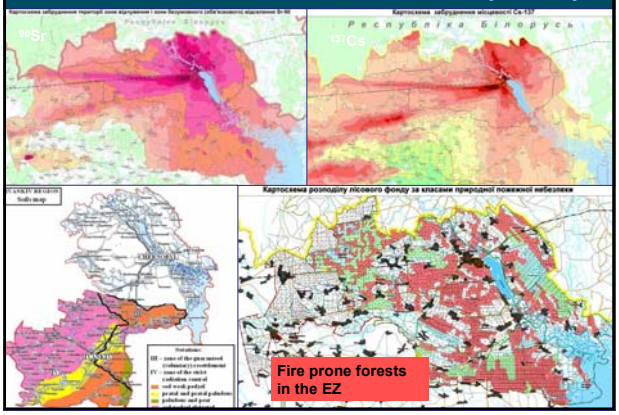
Ukraine at glance

- **Population** – 48 million (28 production age, 13 millions of pensioners)
- **Area** – 603,7 thousand square km
- Second most industrialized former USSR republic (5 nuclear power plants, chemical industry, steel production, coal mining)
- One of the most militarized territories of former USSR

1. Preparedness for wildfire incident in the Chernobyl Exclusion Zone (EZ):

a worst case scenario and vulnerable groups of populations

The exclusion zone and its vicinity today



Contaminated territories and vulnerable groups of populations in the Chornobyl EZ

- 260 000 ha of heavily contaminated forests and former agricultural lands
- Sarcophagus and radioactive waste storages, more then 100 temporary waste storages all over 10-km zone
- **4 000 people of staff working in the EZ**
- **Near 300 villagers** who voluntary came back to their homes (after evacuation in 1986) and are living now in the EZ permanently - **mostly older than 65 year old**
- **32 000 of population** in the vicinity of the exclusion zone - Ivankiv rajon (*working population is 28%*)

Whether lessons have been learnt?

Evacuation of the population from city of Prypiat and whole EZ- 50 000 (1986)

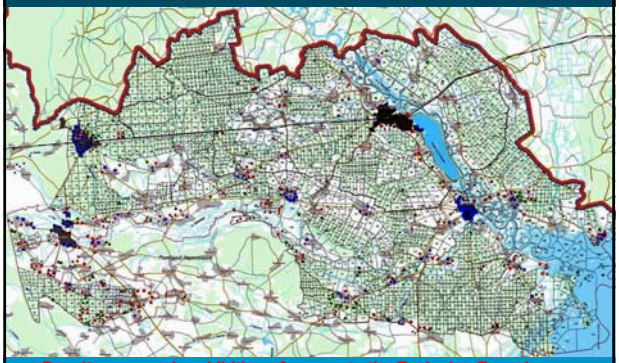
Machines deactivation

Radioactive wildfire coping (1986-90)

Is safety of the Exclusion zone equal to safety of the Sarcophagus where 95% of support is directing?

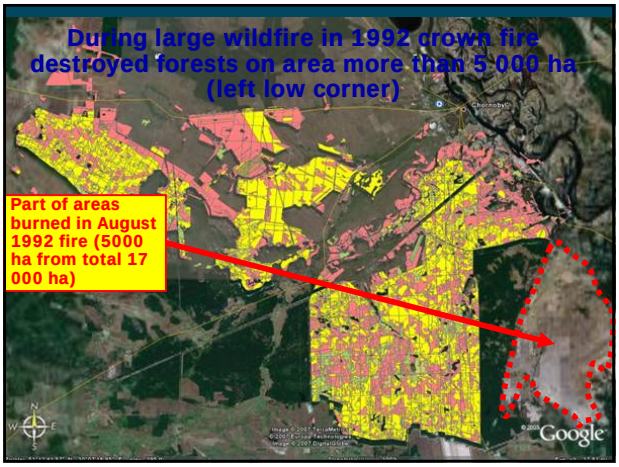
Dry Scotch Pine contaminated fire prone forests damaged by insects and diseases (1034 ha - inside 10 km zone)

Wildfires are regular event in the EZ (93-08)



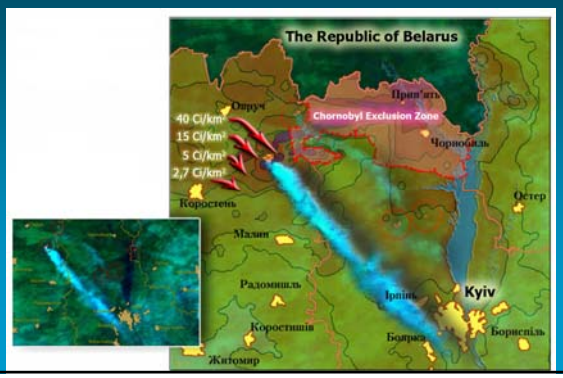
- Despite a general prohibition of access to the Exclusion Zone, human-caused ignition is common in the area.

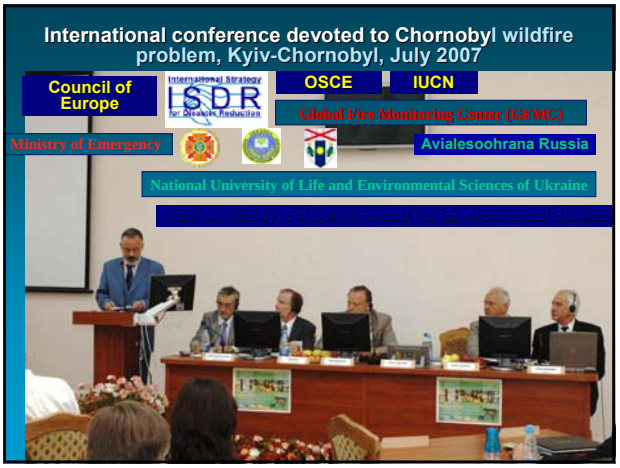
During large wildfire in 1992 crown fire destroyed forests on area more than 5 000 ha (left low corner)



Smoke from medium size wildfire out of the EZ reached vicinity of Kyiv in May of 2003

(**NOAA satellite image** is courtesy of Ukrainian Land and Resourses Management Centre).





Preliminary results of worst case catastrophic wildfire scenario modeling

Hohl A., Yale University
Kashparov V., National University of Life and Environmental Sciences of Ukraine

The potential dosage derived from the consumption of contaminated foodstuffs could exceed acceptable levels.

The Ukrainian government calls for **limitations on the consumption of foodstuff** if the prevented internal irradiation dose exceeds 5 mSv or if the prevented average annual dose exceeds 1 mSv.

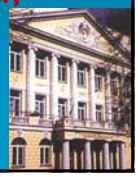
For both adults and infants these levels could be almost met or exceeded by consuming food produced at distances as great as **150 km from the center of the CEZ.**

2. Organization of search & rescue operations in Ukraine during large scale emergency situations

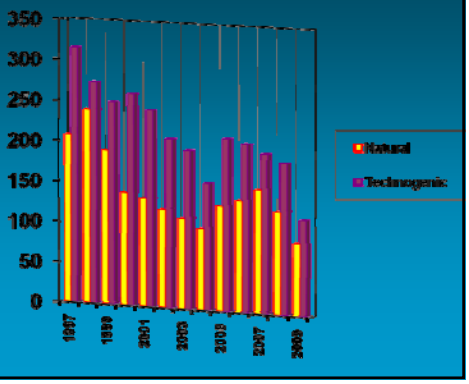
THE MINISTRY OF UKRAINE OF EMERGENCIES AND AFFAIRS OF POPULATION PROTECTION FROM THE CONSEQUENCES OF CHERNOBYL CATASTROPHE

The Ministry is a main authority that responsible for the implementation of state policy on protection of population and territories from:

- technogenic emergency situations,
- natural disasters,
- consequences of the Chernobyl disaster,
- rescue operations,
- fire safety and
- radioactive waste



DYNAMICS OF NATURAL AND TECHNOGENIC DISASTERS AND EMERGENCY SITUATIONS IN UKRAINE (97-09)



LEGISLATION OF UKRAINE FOR EMERGENCY SITUATION MANAGEMENT

LAWS OF UKRAINE

- *ABOUT LEGAL BASIS OF CIVIL PROTECTION*
- *ABOUT PROTECTION OF POPULATION AND TERRITORIES FROM EMERGENCIES OF TECHNOGENIC AND NATURAL CHARACTER*
- *ABOUT RESCUE SERVICES*
- *ABOUT FIRE SAFETY*

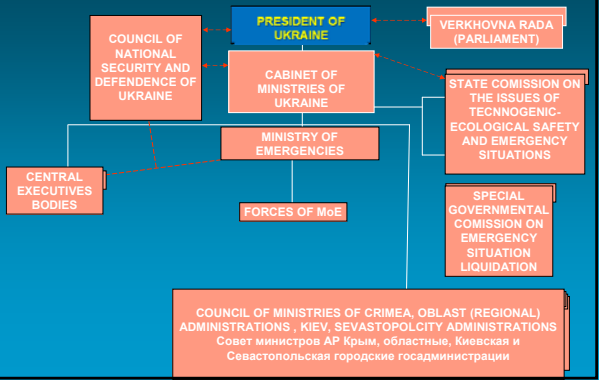
ORDERS OF CABINET OF MINISTERS OF UKRAINE

- *Statute on MoE*
- *Statute of State commission on technogenic safety and emergencies*
- *Statute on Governmental Commission on Emergencies*
- *Statute on headquarter of emergency liquidation*
- *PLAN OF RESPONSE ON EMERGENCY SITUATIONS OF NATIONAL LEVEL*

NORMATIVE BASE OF MoE

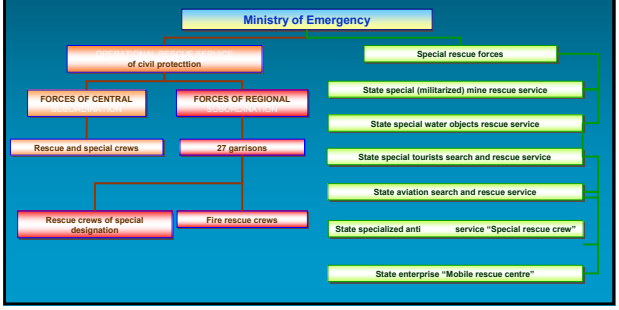
- *Interagency Centre of emergency liquidation*
- *Organization of emergency management*
- *Methodology of rescue operations in typical emergencies*

UNIFIED STATE SYSTEM OF CIVIL PROTECTION OF POPULATION AND TERRITORIES



RESCUE FORCES OF THE MINISTRY

- RESPONSE FOR EMERGENCIES AND LIQUIDATION OF THEIR CONSEQUENSES;
- INFRASTRUCTURAL AND WILDIFRES SUPPRESSION;
- PEOPLES RESQUE IN BUILDINGS, BLOCKAGES, ON WATER, INASSESIBLE MOUNTAIN AREAS, MININGS;
- CLEANING OF TERRITORIES FROM UXO AND LAND MINES;
- LIFE SUPPORT OF INJURED POPULATION;



Rescue operations during catastrophic floods in settlements

Catastrophic floods took place in 1998, 2001 and 2008 in Ukraine.

2008 - search and rescue operations were conducted with the use of aviation, floating transporters, rescue, engineering and special machinery.

1 450 people were rescued by the special forces the extreme conditions (thunder, lightning, pouring rain, wind).

23 000 people have been evacuated from affected areas

Rescue operations during catastrophic floods in settlements: attention to vulnarable groups of population

Priority to rescue of:

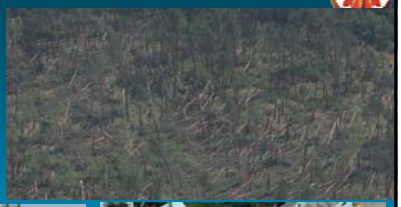
- older peoples (often refused to leave their homes)
- peoples with disabilities
- pregnant women
- children

LIQUIDATION OF CONSECUENCES OF WINDBREAKS IN UKRAINE

Windbreak of 2007 year (Volyn region).

Damaged:

- 2 702 houses
- 5808 ha of forests
- Electricity supply 190 settlements



RESCUE OPERATION AFTER BUILDINGS COLLAPSE

AFTER BLAST OF NATURAL GAS IN APPARTMENT BUILDING, EVPATORIA,2008

LIQUIDATION OF COLLAPSE OF BUILDING,

DNIPROPETROVSK, 2007 - rescued 25 peoples

LIQUIDATION OF YELLOW PHOSPHORUS (750 TONS) CONTAMINATION DURING TRAIN INCIDENT

15 CARRIAGES BROKEN, 6 OF THEM BURNED

Forces mobilized - 1000 peoples, 111 engines

FIGHTING WITH FIRES IN INFRASTRACTURAL OBJECTS AND NATURAL ECOSYSTEMS

34
3

LIQUIDATION OF CONSEQUENCES AND RISKS OF BLASTS ON ARTILLERY BASES AND ARSENALS

Exploded during summer draught militaary ammunition on the artillery base # 275 in Zaporizska oblast, 2006 - 2008

Military arsenal # 61 Kharkiv oblast

POTENTIAL USE OF THE MINISTRY FORSES FOR RESCUE OPERATIONS ABROAD

MOBILE RESCUER CENTER OF MOE OF UKRAINE

ASSISTANCE THAT FORSES OF THE MoE PROVIDE ABROAD

MOBILE RESCUER CENTER OF MOE OF UKRAINE DESIGNATED FOR MEDICAL ASSISTANCE TO POPULATION IN EMERGENCY ZONES

RESCUE OPERATIONS OF MoE ABROAD OF UKRAINE

1999 TURKEY

- 720 **RESCUERS** WERE INVOLVED IN RESCUE OPERATION DURING EARTHQUAQE. MOBILE RESCUER CENTER OF MOE PROVIDE Medical assistance were provided for 5 452 **PEOPLES**, including 1 047 kids

2001 INDIA

- MEDICAL ASSISTANCE TO **5 558 PEOPLES SUFFERED FROM EARTHQUAQE**, INCLUDING **1 053** KIDS

2003, 2005 IRAN

MEDICAL ASSISTANCE TO 7 384 PEOPLES SUFFERED FROM EARTHQUAQE, INCLUDING 1 660 KIDS

2005 PAKISTAN

MEDICAL ASSISTANCE TO 10 758 SUUFERED FROM EARTHQUAQE, INCLUDING 1 427 KIDS

Session II: Operational Issues

"Human rights in Disasters: Search and Rescue Operations in disasters especially for vulnerable people"
Athens, 5-6 of November 2009

Human Rights in case of disaster: search and rescue operations during disasters and the specific case of vulnerable people

Gael Rosello, CEREN
Nicolas Aced, SDIS84 Rescue team

I: Operational chronology

II: case of vulnerable persons

III: axis of reflection

IV: conclusion

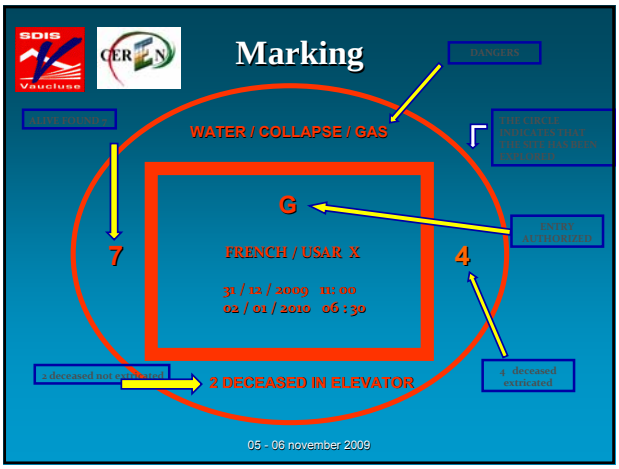
Immediate reactions

Reconnaissance

Rescue of victims localized by man

Rescue of victims localized by specific means

Rubble removal


Marking
DANGERS
ALIVE FOUND
WATER / COLLAPSE / GAS
THE CIRCLE INDICATES THAT THE SITE HAS BEEN SECURED
G
ENTRY AUTHORIZED
7
FRENCH / USAR X
31 / 12 / 2009 11: 00
02 / 01 / 2010 06 : 30
4
3 deceased not extricated
2 DECEASED IN ELEVATOR
4 deceased extricated
05 - 06 november 2009

Vulnerable people :
- deaf people;
- disabled people;
- psychiatric disorders.
05 - 06 November 2009

Axis of reflection:
- locate all victims;
- communicate with the victims.
05 - 06 november 2009

"Human rights in Disasters: Search and Rescue Operations in disasters especially for vulnerable people"

Jordi Battle and Sandra Sans, Direccio general De Prevencio I Extincio D' incendis I Salvaments / DGPEIS Rescue team

DGPEIS

Partner of FP7 project

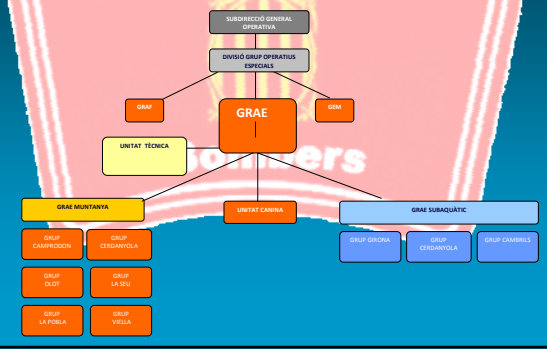
SGL for USaR

G R A E

SupportGroupSpecial

Activities

ORGANIGRAM



Slide 363

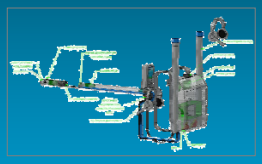
e1 emsmassague; 29/10/2008

SGL for USaR

General context

Prototype of tool that facilitates the search for people in critical situations victims buried by the collapse of a building.

Its ergonomy and system are currently being up-dated and improved according to recent research.



PRINCIPLE AIMS

To improve the rescue techniques of people in danger in collapsed or demolished buildings.

To study such a situation in a simulated case using specific methods in order to speed-up the rescue of victims.

To obtain maximum data that will allow further research and development on a European level.

Generalitat de Catalunya

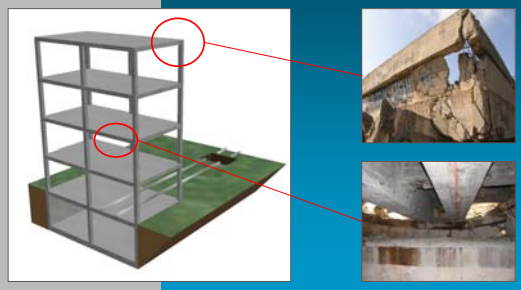
Bombers

"Exercise in **USaR** Scenario – Catalan rescue team"

SCENARIO.-

Practical example.- FACTORY LOCATED IN GAVÀ

SCENARIO.-



SCENARIO.-

SCENARIO.-

PROTOCOL.-

Collapse's scene structure

- NOTICE → RECEPTION — Information
- RECEPTION → ACTIVATION RESOURCES
- ACTIVATION RESOURCES → ACTION
- ACTION → VALUATION SCENE
  - Cause of collapses
- ACTION → SEARCH
- ACTION → RESCUE – VICTIM'S EXTRACTIONS
- ACTION → ROUTE OF EVACUATION
  - Sanitary attention

STUDY PROCESS.-

General technical study

- Type of structure involved (applied loads, type of framework, structural elements)
- Behavior of the component materials (concrete, steel, wood)
- Analysis of the resulting state of the building and the causes of the collapse
- Results: structural hypothesis related to the collapse
- A general drawing of the situation

** The technical study and field work will be carried out with the necessary security measures.*

STUDY PROCESS.- Evaluation Scene

Basic points to follow in a situation of collapse

- A general perimeter study
- Observation of the scene
- Search for the originating cause: typically explosions, gas leaks, water leaks.

⇒ ACTUATION: Zoning of the space and establish the materials of organisation.

Factors in account

- -Conditions of the enviroment
- -Climatological conditions
- - Time Slot
- -Conditions of the group of rescue

TAKE INFORMATION.-

It is extremely important finding as much information as possible with the correct transmission of this at all effective.

STUDY PROCESS.- Research

Resources

UPC Comandament zone.+ 1fireman

BRP/BUP Comandament of torn + 3 firemen

FSV 2 firemen

AEA 2 firemen

AMB 1 doctor + 1 nurse + 1 tecnic

2FRM Especialists: 1 guide – unit canin +2 GRAE

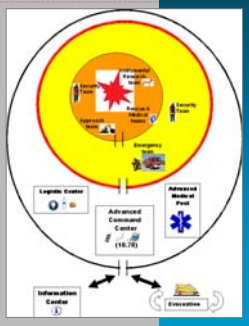
FIRT ALARM

SECOND ALARM

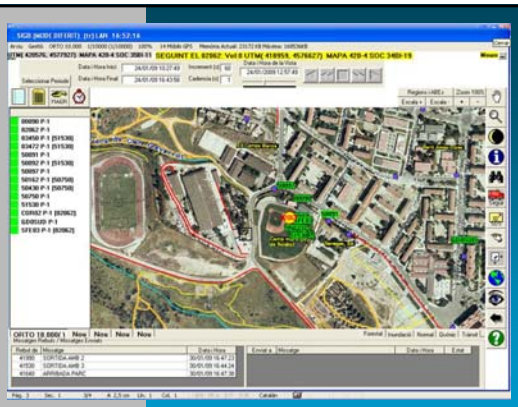
SUPPORT

+ Others

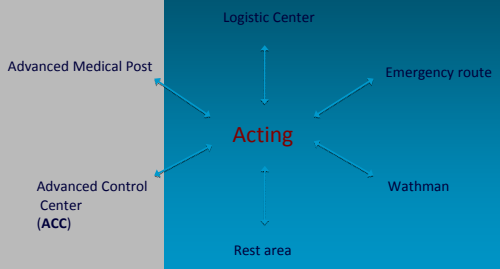
WORK AREAS.-



- **SAFETY TEAM:**
  Collecting information
  Ensure perimeter
  Monitor and evaluate hazards and collapse
  Ensure the safety of other teams in the hot zone
- **INSTRUMENTAL RESEARCH TEAM:**
  Research and find the victims
- **APPROACH TEAM:**
  Stabilization of the area
  Clearing the zone
  Movilisation victims
- **RESCUE AND MEDICAL TEAM:**
  Stabilizer
- **EMERGENCY TEAM**
  Support and protecction to other rescue team



STUDY PROCESS.- Acting



Research Protocol.-

Localitzation victims

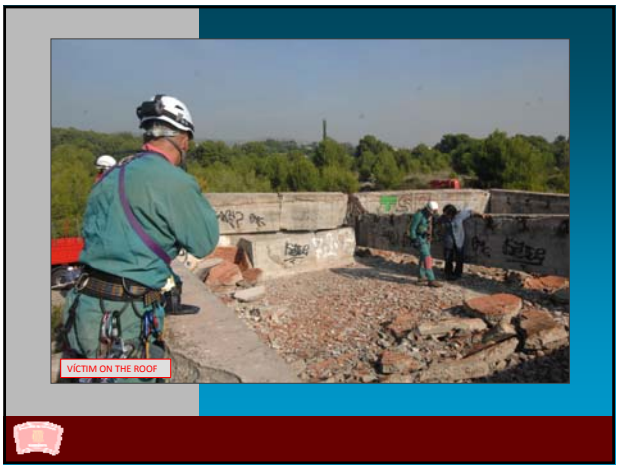
- Surface victims
- Research in holes
- Research in specific places (Information)
- Take out ruins

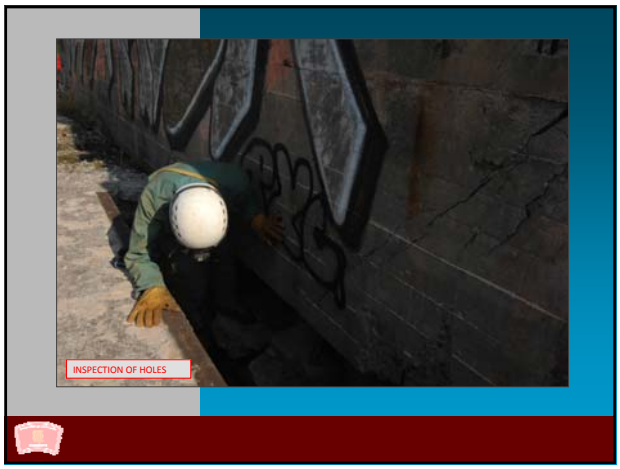
↓

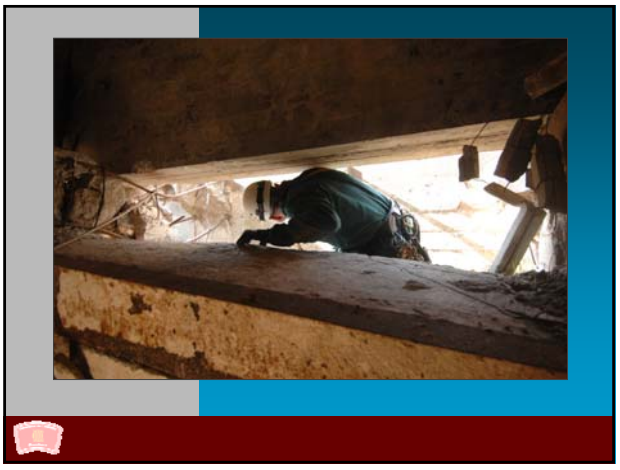
Start Triage

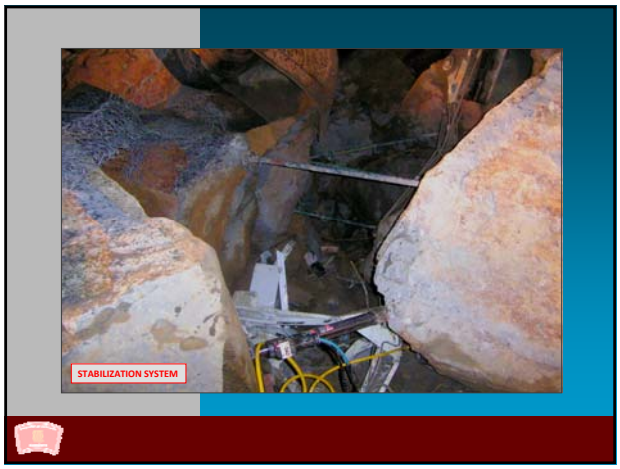
START TRIAGE.-

Visual Inspection.-


VICTIM ON THE ROOF


INSPECTION OF HOLES




STABILIZATION SYSTEM

TAKE OUT RUNES

Vigili del Fuoco di Pisa
http://www.vigilidelfuoco.pisa.it
PISA Fire Brigade
U.S.A.R. Team
Fabrizio Graverini & Alessandro Susini

Vigili del Fuoco di Pisa

http://www.vigilidelfuoco.pisa.it

The National Corp of Firemen has always been a deputy to act in our country in case of disasters, The experiences are unfortunately, many

1997 Umbria

2009 Abruzzo

2002 Molise

1980 Irpinia

2009 Sicilia

Pisa U.S.A.R. Team

Vigili del Fuoco di Pisa

http://www.vigilidelfuoco.pisa.it

The birth of our team

The earthquake in Armenia in 1988 signals the globalization of assistance intervention
Following this,
the Ministry of Interior authorized the fire Dept of Pisa to form one of two sections of operational interventions in the international scenarious

The International **USAR Team** of Pisa was officially established on 11/08/1991

Vigili del Fuoco di Pisa

http://www.vigilidelfuoco.pisa.it

the missions abroad

started

Pisa U.S.A.R. Team

Earthquake Turchia 1999

Earthquake Colombia 1999

Earthquake Algeria 2003

Flood Georgia 2005

humanitarian mission Albania 1999

Earthquake Iran 2003

Tsunami Sri Lanka 2004

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http://www.vigilidelfuoco.pisa.it

The experiences in Italy and abroad

- have determined the choices of new means of transportation and tools/equipment
- have increased operational capacity of the team

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Considering that the primary objective of the U.S.A.R. Teams is to save victims trapped under rubble and the time must be compatible with health needs

Pisa U.S.A.R. Team

Vigili del Fuoco di Pisa
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For this reason we had to equip ourselves with suitable means to air transportation

Pisa U.S.A.R. Team

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prefering multitasking and the modularity of the means

Pisa U.S.A.R. Team

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and movement in all conditions

Pisa U.S.A.R. Team

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using modular boxes

With colours and labels to identify the contents

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with yard tools

Pisa U.S.A.R. Team

Vigili del Fuoco di Pisa

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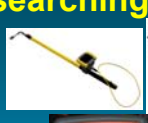
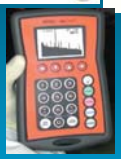
searching instruments





And canine units

Vigili del Fuoco di Pisa

http://www.vigilidelfuoco.pisa.it

objectives : obtaining

Self sufficiency and Flexibility

... to avoid a "screen"effect

Solution that allows us to mitigate the screen effect that we have in approaching to the affected areas

U.S.a.R. module

Vigili del Fuoco di Pisa

http://www.vigilidelfuoco.pisa.it

Our team has characteristics of Medium USAR of INSARAG Guidelines

Since 2005 we operate in the international scene with the Emergency Surgery Group of Pisa

Emergency Surgery Group

Advanced Medical Post with Surgery

According to the requirements for European Civil Protection Modules

- Performing patient profiling (triage) on the site of disaster
- Performing damage control surgery
- Stabilizing the conditions and preparing the patients for transportation to the most suitable facility for final treatment
- Providing psychological treatment

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Training is Important

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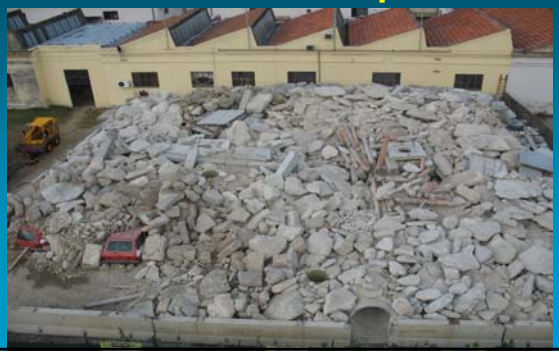
Debris camp



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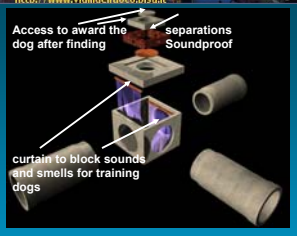
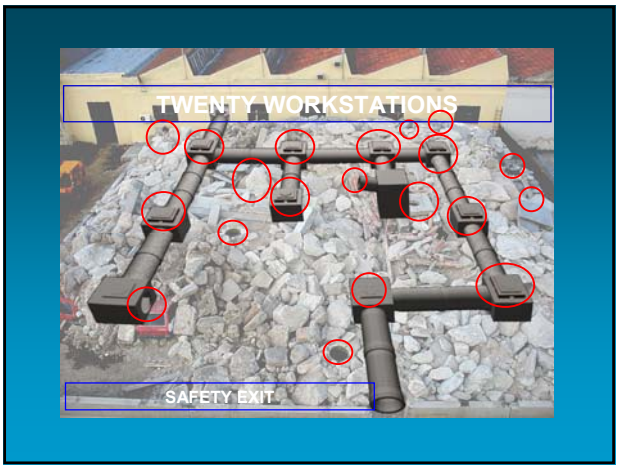
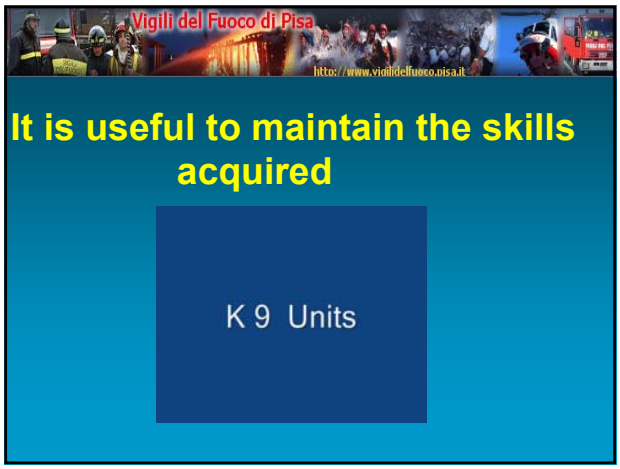
100 meters grid of tunnels and wells.



Tunnels and wells weight resistant

SI.S.M.A. U.S.A.R Pisa


TWENTY WORKSTATIONS
SAFETY EXIT


Vigili del Fuoco di Pisa
http://www.vigilidelfuoco.pisa.it
It is useful to maintain the skills acquired
K 9 Units

Vigili del Fuoco di Pisa
http://www.vigilidelfuoco.pisa.it
extrication of victims

Vigili del Fuoco di Pisa
http://www.vigilidelfuoco.pisa.it
We are trained also for cultural and social awareness in all rescue operations in our country and abroad

Vigili del Fuoco di Pisa
http://www.vigilidelfuoco.pisa.it

Latest tool tested in our camp

A Microwave System Prototype Movement Detector of University of Florence

SI.S.M.A. U.S.A.R Pisa

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S.O.S. TEAM SYSTEM

PROTOTYPE SOUND DETECTOR OF THE **POLITECNICO OF MILANO**

Vigili del Fuoco di Pisa
http://www.vigilidelfuoco.pisa.it

The USAR teams

being the first to intervene, often encounter also situations not strictly related to the search and rescue operations

•The USAR teams have inside many skills that may in some cases cover immediate essential services related to humanitarian relief

Vigili del Fuoco di Pisa
http://www.vigilidelfuoco.pisa.it

Kinnya Sri Lanka

It was necessary to operate in the streets

For instance:
Since the old hospital was destroyed

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http://www.vigilidelfuoco.pisa.it

We had thus to clean and equip an old library …

…as a hospital

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http://www.vigilidelfuoco.pisa.it

…Obtaining the gratitude and appreciation of all the people

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http://www.vigilidelfuoco.pisa.it

Iran

Firstly the USAR operations….

Right after we provided a mosque for their prayers

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The case of Eleonora …

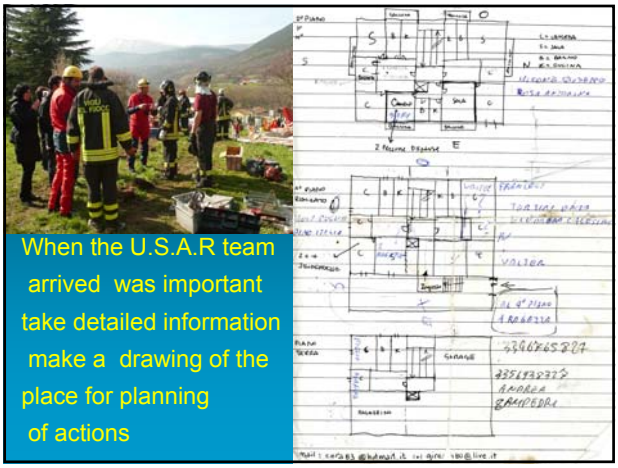
a handicapped girl...

Eleonora is deaf-mute

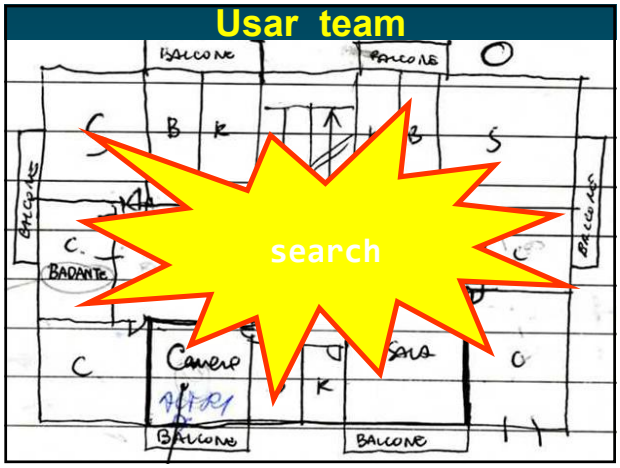
BEFORE….

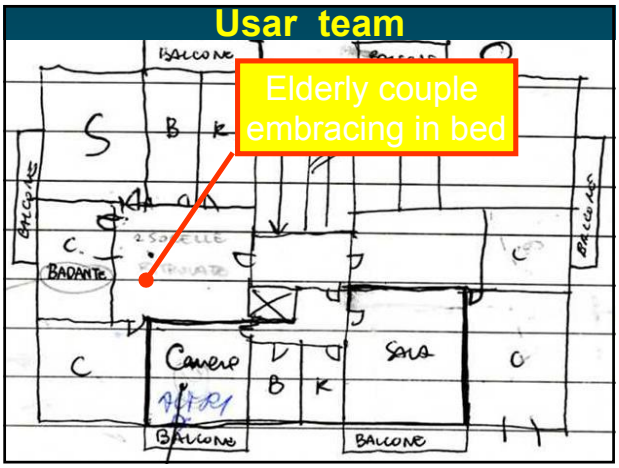
…AFTER

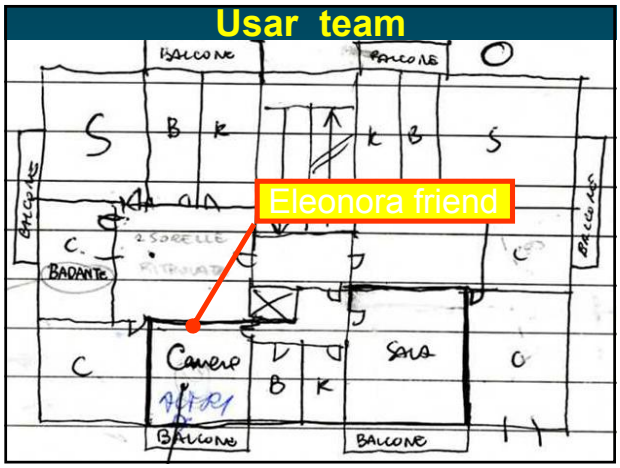
4 floors in three meters



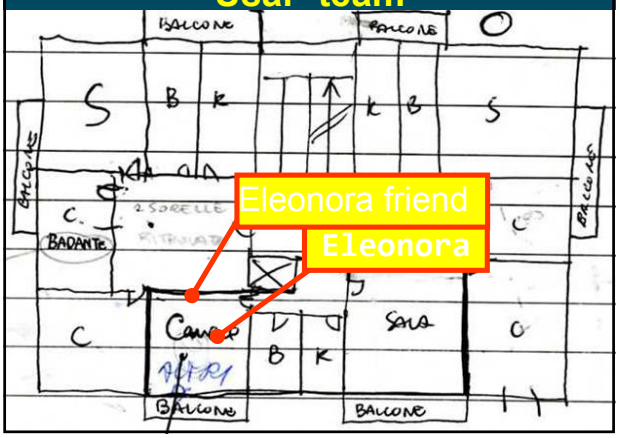
When the U.S.A.R team arrived was important take detailed information make a drawing of the place for planning of actions







Usar team



The hard work of USAR Team

The hard work of USAR Team

Vulnerale people

Laws to ease the access of disabled people to private and public buildings and reduce architectural barriers have been improved;

Orienteering methodologies and alarm devices (eg acustic, visual, vibration etc.) to warn from danger have been improved

BUT

In case of catastrophes, terroristic attack and other events that require rapid evacuation, little can be made

SO

A special care and particular attention has to be paid in places in which vulnerable people are present as this implies more difficulty in evacuation procedures and a high percentage of victims

Vulnerable people

The task of the sanitary and social services is looking after the victims, especially where a provisional shelter replaced the house/village's houses causing important personal and social psychological consequences

USAR Needs

- We can say that the USAR covers an essential and difficult service that lies between the prevention measures and the support to survivors.
- The USAR must necessarily be also a service that offers the best of the resources, expertise and technology to serve all

HOW?

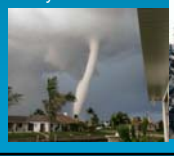
- **Tools**
- **Training**
- **Sharing**

Emergency Plans of Action in case of a disaster in Cyprus: Evacuating the old, disabled and younger people

Chrysilios Chrysiliou
Deputy Director
Cyprus Civil Defence

Disasters do not differentiate between countries, nationalities, age, gender or individuals.

- Increasingly, disasters are affecting our modern societies.
- Forest fires, floods, tornados, earthquakes and major technological incidents are common causes for a disaster
- Different countries around the world are finding it difficult to face the natural and man caused disasters which threaten their societies (ex Katrina, USA).
- For small countries, like Cyprus, which lie far away from friendly and ally States, facing a disaster has never been an easy task to accomplish.



Facing a Disaster, the Cyprus Experience

- Cyprus' place in eastern Mediterranean, far away from Europe, has always been a deteriorating factor in its straggles to face different disasters.
- Very often, Cyprus' few resources were not enough to confront a disaster.
- Since the island's declaration of independence in 1960, the Republic of Cyprus has set up its own mechanism in dealing with natural and man caused disasters.
- A central agency in this effort is the Cyprus Civil Defence.

Cyprus Civil Defence

- CCD is a government agency tasked to face disasters. The philosophy upon which it operates is a one based on mobilizing and utilizing the whole population in case of a disaster.
- It has a small number of paid professionals and a good number of volunteer part time officers.
- In addition to the above members of CCD, all citizens of the Republic are obliged to serve a two year mandatory period to the CCD. Overall the CCD members account to about 10,000 for 800,000 of population.
- CCD trains its members in First Aid, Telecommunications, Welfare, Neighborhood watch, Urban Search and Rescue, Fire fighting and Pumping water after floods.

Facing Disasters in Cyprus

- CCD has a number of national plans of action depending on the expected disaster like,
- "EGGELADOS" earthquakes
- "ESTIA" major middle east crisis
- "SEVESO" major technological incident
- "IFESTOS" Evacuation from forest fires

Evacuating the old, disabled and younger people, a central issue in all plans of action

Population: 796,740 (July 2009 est.)
Age structure:
0-14 years: 19.1% (male 77,959/female 74,591)
15-64 years: 68.5% (male 276,890/female 269,267)
65 years and over: 12.3% (male 42,961/female 55,072)

About 35% of the population is very vulnerable to disasters as they are bellow the age of 14, over the age of 65 or are disabled.

The CCD gives special attention to the issue of evacuation and how to deal with this more vulnerable segment of the population in case of need.

Evacuating the old, disabled and younger people, a central issue in all plans of action

- In the decade 1999 to 2009, Cyprus experienced an increasing number of big rural/forest fires.
- Some of them threatened a number of villages and as a result some of them needed to be evacuated for the first time.
- One of the greatest problems we faced in trying to evacuate isolated villages was the big number of older and disabled people we faced.
- All of a sudden a new problem arose. It was no longer a problem of fighting the fire but also one of caring for the affected people, massively, and one of caring of people with special needs.

Evacuating the old, disabled and younger people, a central issue in all plans of action

- In 2006, Cyprus and the CCD faced yet another challenge.
- The welcoming and caring of more than 60,000 evacuees from Lebanon after the hostilities which took place their.
- Immediately, we had to temporarily shelter and care for thousands of people.
- Once again we faced the issue of dealing with old, disabled, younger and pregnant people.
- Two years ago, the Cyprus Civil Defence was mandated by the Government of Cyprus to come up with individual evacuation plans of action giving special attention to people with special needs.

Evacuating the old, disabled and younger people

- Coming up with a plan of action and maintaining it to a constant updated status has been since a continues process and needs excellent coordination and the cooperation of everybody involved.
- To successfully implement the plan ensuring the evacuation of the most vulnerable in times of a crisis or a disaster means that a number of issues should be addressed beforehand.

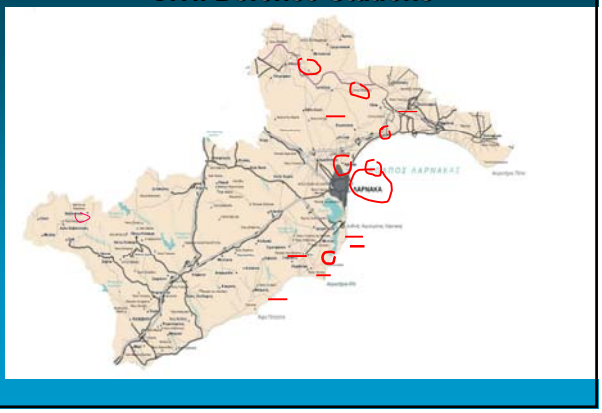
Evacuating the old, disabled and younger people

- Major challenges,
  - Identifying the individuals
  - Considering their individuality (age, ability etc)
  - Considering other factors
  - Coming up with a plan suited for the individual
  - Informing them of the threat, dangers and plans
  - "training" them how to participate in the implementation of the plan
  - Training the trainers

Evacuating the old, disabled and younger people

- In order to meet the challenges identified in an evacuation plan, the CCD has decided to prepare a different plan for each community.
- CCD officers have met with the community presidents and the community councils and requested their assistance in gathering the necessary information.
- In addition, experts were hired on a temporary term to assist CCD.
- Last, the CCD Neighborhood Watch members have been mobilized to assist.

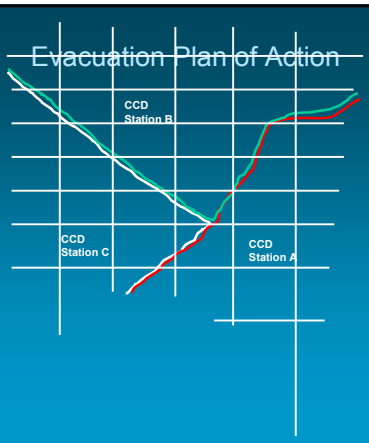
Civil Defence Stations



Mission

To respond immediately after a crisis or a disaster. To collect information and pass it on to headquarters, and offer A Aid help, assist in evacuation missions, assist in search and rescue missions.

Evacuation Plan of Action



Neighborhood Watch

CCD members, Neighborhood watchers, are organized in groups where they reside. Depending on their individual training, they carry a A' Aid bag, and a radio.

Evacuating the old, disabled and younger people

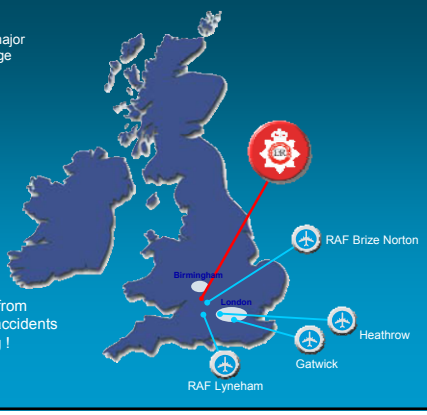
- Not an easy thing to accomplish.
- It needs
  - Constant gathering of information
  - Field info from the people at the site
  - Don't presume, let the affected people tell you
  - Request, pursue, use the cooperation and assistance of the local governments
  - Keep the plans constantly updated
  - Inform and train your people but above all the people for whom the plan was prepared in the first place the old, disabled and younger people.

Mike McCarthy, USAR trainer
The Fire Service College, Moreton in Marsh. UK

USAR response, equipment and training… The UK Capability

Located at the heart of the UK

We do not suffer major earthquakes or large forest fires



But we do suffer from terrorism, major accidents and flash flooding !

Largest UK FRS training establishment (over 400 Acres)

We have trained 7.500 USAR fire-fighters.100s of paramedics from the UK and 100s of international rescuers

One of our 5 unique USAR collapsed building rigs (part based on the Murrah Building , Oklahoma)

We have 5 major dedicated USAR training rigs , (3 internal and 2 external) costing £8million

Extremely large size and the extreme depth of rubble pile ensures difficult and challenging detection of live casualties for rescuers

Smoke, gas, sounds, water and the varying and compacted concrete rubble pile add to the realism

Internal and External Sounds available in rescue venues

Internal sounds in the hundreds of metres of tunnels underneath the rubble pile at 20 different tunnel locations

- Female help
- Male help
- Baby crying
- Car alarm
- Phone ringing
- Fire alarm
- Sobbing moaning
- Escaping water
- Escaping gas
- Car alarm
- Dog barking
- Hysterical screaming
- Tapping on pipes

External Sounds

- Aircraft
- Rain
- Traffic
- Helicopter
- Train
- Storm
- Fire
- Explosion

Various portable mechanical 'thumpers' and 'squawkers' are also used for technical search

4 x zoom cameras also monitor the rescuers activities, the buildings and rubble pile for feedback and safety purposes

Tim Gallagher (FEMA), USA when visiting the College

"Having instructed USAR management and operations all over the world for years, I have seen many training facilities that attempt to replicate the real conditions of large scale structural collapse incidents, never have I seen one that provides such realism for students."

We attempt to make the training as realistic as possible

The crane assists in 'delayering' the rubble pile to assist the Tech search team to locate the casualties

In excess of 50 different voids underneath rubble and over 3 floors testing all the different disciplines of USAR

Realistic training every week for multi agency rescue teams

Multi agency, extended duration exercises

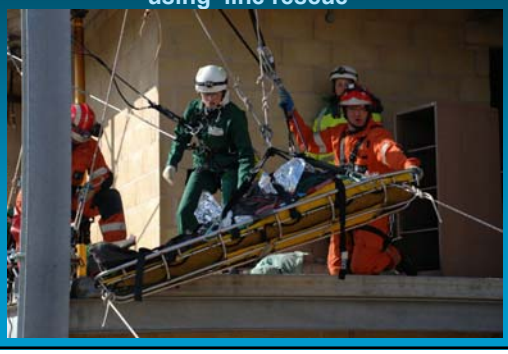
Our flexibility allows us to stage 'long duration continuous exercises' over several days and nights.

This enables incident commanders to manage crew rotations and also crews to deal with fatigue and skill fade

Vulnerable people, Training with the elderly (rescuers are being assessed !)

Fire and paramedics training with an ‘amputee.’ (missing right leg)

Extrication of live casualties by fire and paramedics using ‘line rescue’



The UK USAR capability has 100 Modules , fully loaded with ‘Search and Rescue’ equipment

UK National Resilience following 9/11

Mass Decontam

80 Incident Response Units
36 Disrobe Modules
14 Re-robe Modules
18 DIM Teams & Vehicles(Detection, Identification, Monitoring)

Urban Search & Rescue

19 USAR Teams each having 3 prime movers and 5 modules each
Local Training Facilities
National Training Facility

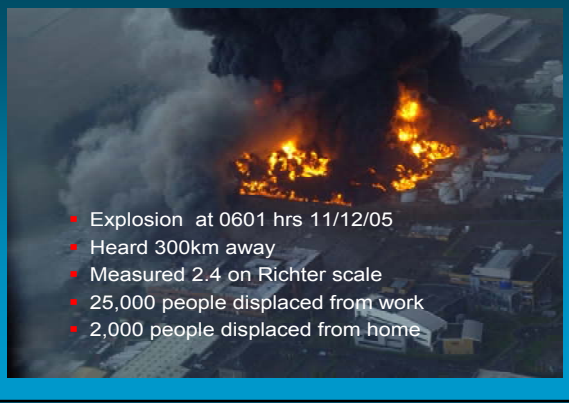
Water & High Volume Pumping

50 High Volume Pumps
Water Safety Training
Trained HVP Instructors

Urban Search & Rescue Operational incidents

Terrorist Attack, London 7/7/05
52 dead 700 injured, many vulnerable people

The Fire at the Buncefield Oil Terminal



- Explosion at 0601 hrs 11/12/05
- Heard 300km away
- Measured 2.4 on Richter scale
- 25,000 people displaced from work
- 2,000 people displaced from home

UK Floods 2007, South Yorks and Glos

Hundreds of disabled and elderly rescued

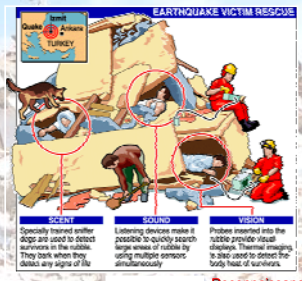
The UK Fire Service also has 13 x Heavy' International Search and Rescue teams (Recently assessed by the UN with praise)

- To save lives and be safe,
- Rescuers need to be :-
- The Right People ..... doing
- The Right Things..... with
- The Right Equipment..... at the
- The Right Time.

INTERNATIONAL DEPLOYMENTS

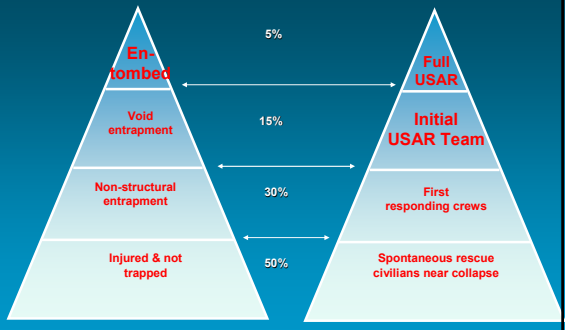
Turkey
India
Iran
Algeria
Pakistan
and many
others

TECHNICAL SEARCH



Reconnaissance & Survey
Elimination of Utilities
Primary Surface Rescue
Exploration of voids & Spaces
Access by selected debris Removal
Terminate by general debris Removal

Victim Chances of Survival

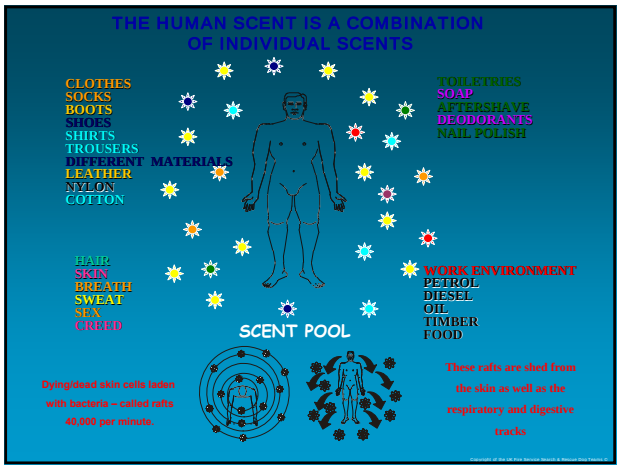


Condition of Casualties Emergency Response

Victim Chances of Survival

• 30 Minutes	91.0% Survive
• 1 Day	81.0% Survive
• 2 Days	36.7% Survive
• 3 Days	33.7% Survive
• 4 Days	19.0% Survive
• 5 Days	7.4% Survive

'The Golden Day of Survival'



K9, does not differentiate if you are deaf, blind, elderly, or disabled etc it just follows the 'scent cone' to its strongest point

CANINE DISADVANTAGES

- Living animals can be temperamental, tired, stressed
- The information has to be interpreted
- Many dogs will not locate dead victims, as not trained for both
- Performance may vary according to individual handler/canine capabilities.
- Effected by extreme weather conditions
- Distractions i.e. other scent cones are present
- Suffer a lowering of performance if used excessively
- Short work period of 20 - 30 minutes building collapse, and 45 – 1hr open areas before requiring a break.

UK Technical Search cameras

'Search Cam'

'Snake Eye'

- **Some cameras in excess of £12k**
- **Dated technology**
- **Poor lighting**
- **Limited flexibility and reach**
- **Not very robust**
- **Some do not have communications**
- **Does not monitor atmosphere**

Acoustic & Seismic Search Systems
Used for hasty and full search

•Needs casualty to create movement or sounds **(Deaf and cognitive impairment !)**
•Outdated technology, (even the latest versions)
•Slow to search large areas
•Only as good as the operators
•Limited circle of detection
•Limiting length and managing of cables over rubble piles
•Labour intensive in operation
•All other operations should be closed down for best results
•Sensors should be on same substrate, same depth, same orientation for best comparisons

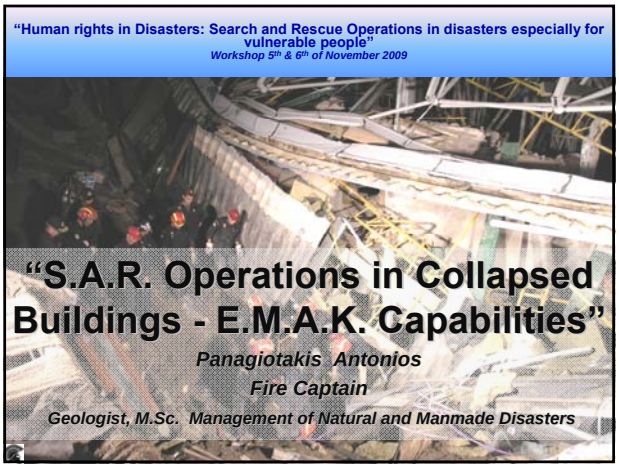
The limitations of the 'Typical circle of detection' of current seismic acoustic search equipment'

Steel	**100 feet**
Concrete	**40**
Solid brick	**25**
Loose brick	**15**
Gravel rocks	**10**
Compacted soil	**5**
Dry sand	**1**
Knocking with rock	**90 feet**
Knocking with fist	**45**
Tapping with finger	**25**
Scratching	**15**

Lots of variables and caveats involved with above figures!!

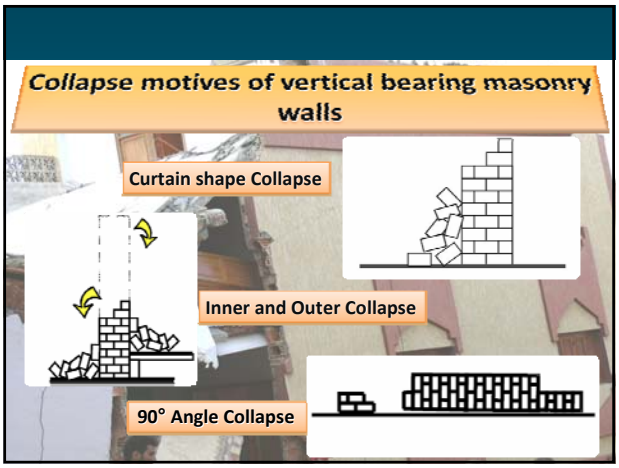
Summary

- Most international rescue teams need **new technology tech search equipment at an affordable price** to enable them to search quicker and easier for more successful rescue operations
- The UK rescue teams need to **review their protocols** to assess if we can do more for vulnerable people
- The Fire Service College would be **delighted to be involved** in the new technology of the SGL project which will greatly enhance the capability of all USAR rescue teams worldwide



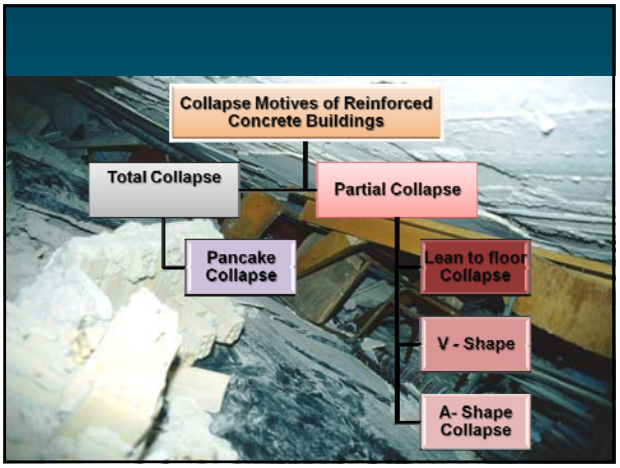
BUILDING CATEGORIES

- Few- story or multi- story reinforced concrete buildings (the majority in Greece's Urban areas)
- Smaller buildings with mixed structural system of vertical bearing masonry (brick or stone) walls, usually found in villages and suburban areas.
- There are only few steel frame buildings in Athens.

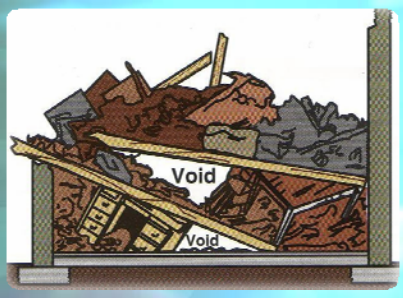


"Human rights in Disasters: Search and Rescue Operations in disasters especially for vulnerable people"

Workshop 5th & 6th of November 2009



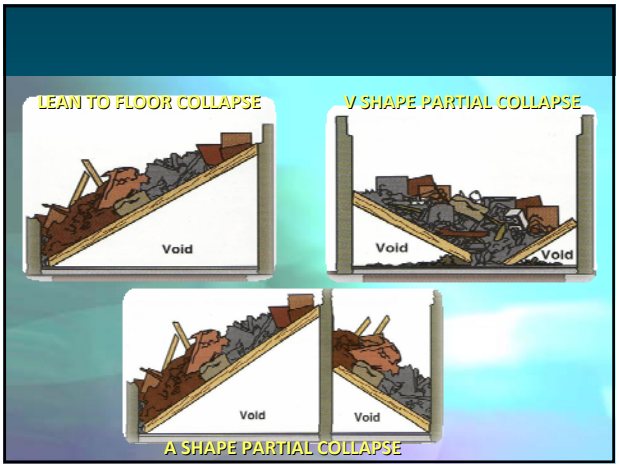
Total Collapse (pancake)



- Existence of a sufficient number of survival spaces
- Stability of volume of the ruins

TOTAL COLLAPSE TURKEY 1999

KALAMATA GREECE 1986



PROSEDURES

1. Building Triage
2. Reconnaissance and information gathering
3. Structure / Hazards Evaluation & Marking
4. Rescue of the Surface victims
5. Search of building's voids – non surface victims locating
6. Rescue of the entrapped victims by debris removal.

1. BUILDING TRIAGE

- Use of the building
- Day and time of the day
- Information from neighbors
- Structural issues as: building's condition, mechanism of collapse (voids), type of construction, our means and personnel sufficiency.

2. RECONNAISSANCE

- Nature of building.
- Eventual risks due to catastrophic events e.g. electric energy risks, natural gas leakage, fires, threatened collapses, chemical or explosive materials etc.
- Evaluation of the number of rescuers required for rescue operations.

3. RISK MANAGEMENT

- Isolate the area
- Use of explosive or chemical detectors
- Remove of parts of ruins that are ready to collapse
- Fight fires
- Cooperation with other agencies.

4. Surface victims release

- Visible victims that are trapped and cannot be removed from other civilians
- These victims could be constitute an information fountain

5. Entrapped victims location

A. Use of information and on the spot examination
B. Calling / knocking method
C. Use of rescue dogs
D. Use of electronic listening devices
E. Use of visual search devices
F. Use of thermal / infrared cameras

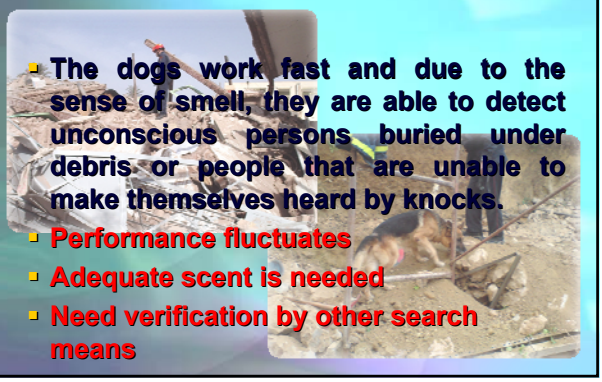
A. Use of information and on the spot examination

- Number of the trapped persons
- Position of the trapped persons in the building
- Apartment's layout
- Identification of the furniture dragged out by the teams that conduct the penetration
- Limited access to voids
- Maybe dangerous

B. Calling / knocking method

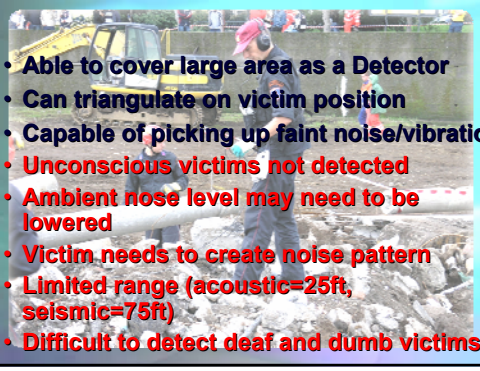
- No special equipment required
- People easily trained to support effort
- Searchers can inform victim of response
- Can be used with listening device
- Will not locate unconscious, weak, young
- Sound of knocking may be too weak for audible detection

C. Use of rescue dogs



- The dogs work fast and due to the sense of smell, they are able to detect unconscious persons buried under debris or people that are unable to make themselves heard by knocks.
- Performance fluctuates
- Adequate scent is needed
- Need verification by other search means

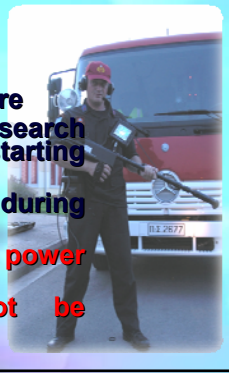
D. Use of electronic listening devices



- Able to cover large area as a Detector
- Can triangulate on victim position
- Capable of picking up faint noise/vibration
- Unconscious victims not detected
- Ambient nose level may need to be lowered
- Victim needs to create noise pattern
- Limited range (acoustic=25ft, seismic=75ft)
- Difficult to detect deaf and dumb victims

E. Use of visual search devices

- Easily understood
- Possibility to record picture
- Useful to verify other search tactics just prior to starting rescue operations
- Used to monitor victim during rescue
- Size, cost, and power requirements
- Closed cavities cannot be detected



F. Use of thermal / infrared cameras

- Can be used to survey large, open, dark areas
- Cannot detect heat difference through solids
- Sources other than human can be detected

6. APPROACH and RESCUE

A. Horizontal Penetration

B. Vertical Penetration

C. Frontal Penetration

AGENCIES INVOLVED IN DISASTERS

"Human rights in Disasters: Search and Rescue Operations in disasters especially for vulnerable people"

Workshop 5th & 6th of November 2009

UNIT'S MISSION

Fighting peculiar disasters offering help to casualties

More Specifically

a) Fighting special kind of fires, like refinery fires, chemical fires, fires of explosive materials, large building or industrial fires.

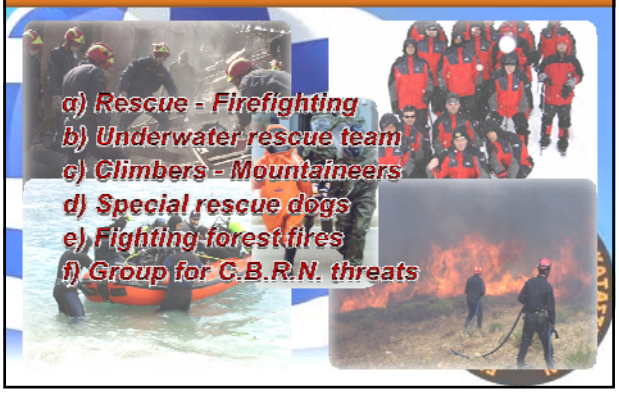
b) Helping in and dealing with earthquake disasters.

c) Dealing with large scale floods and other natural disasters

d) Dealing with major airplane, traffic and railway accidents.

e) Fighting fires in military bases.

UNIT'S SECTIONS



S.A.R. Operations in Greece

- Today unit counts 90 men all fully trained for medium and heavy rescue operations nationwide.
- Capable for search with electronic equipment - rescue dogs, rescue (incl. lifting), cutting concrete, technical rope rescue, basic shoring, hazmat detection and isolation, advanced life support (in cooperation with National Centre of Immediate Help), hazardous materials handling, ability to work 24 hours in daily shifts

1. S.A.R. Canine

2a. Vehicles

The Unit has a variety of rescue tracks with various search and rescue equipment.

2b. Vehicles

Amphibian tracklayer rescue vehicles for every type of ground.

2c. Vehicles

Crane trucks (for heavy lifting)

2d. Vehicles

Ladders (Rescue from partially collapsed buildings)

3a. Search Devices – Electronic Listening Devices

- VIBRAPHONE ASB8C

TPL 310 T Mini

3b. Search Devices – Visual Search Devices

- VIBRASCOPE BVA6

SEARCHCAM2000

4. Tools and equipment

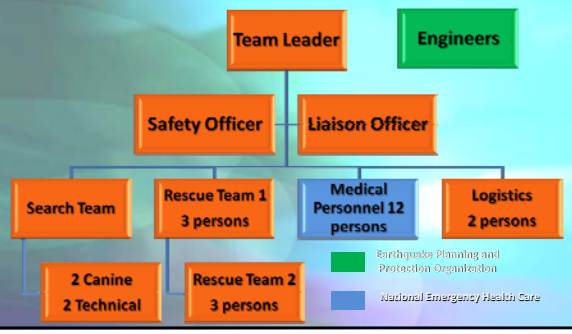
- Confined space Gas monitoring/communications.
- Coring drills for void searches.
- Metallic shoring equipment
- Intrusive search equipment: Heavy concrete breaching & cutting equipment (Hydraulic breakers, petrol & hydraulic disc cutters for metal or concrete, oxyacetylene cutting machine)
- Heavy lift jacks and airbags with a capacity Up to 72 tone.
- Extensive scene lighting (on a truck or tripods).
- Generators and air compressors
- Hydraulic rescue tools (spreaders, cutters)
- Hand tools

5. Transportation

- Unit's transportation vehicles
- SUPER PUMA Helicopters
- CHINOOK and C-130 Military Aircrafts

International S.A.R. Operational Unit MUSAR1

Operating according to INSARAG Guidelines



Capabilities

- Activation in 4 hours
- 24 hours work for 7 days in 12 hours shifts
- 3-4 Vehicles (Mobil – fire)
- 20 tons of rescue tools and equipment
- Shelter, food and water supplies for 7 days
- Technical search, rescue, emergency medicine, structural engineering, logistics, communications, canine search, and hazardous materials handling.

International Missions

13/12/1988	Armenia - Leninakan	21 men, 1 Rescue dog	Retrieving of dead bodies
15/03/1992	Turkey – Erzitzan (6,9 R)	24 men, 2 Rescue dogs	Retrieving of dead bodies
14/10/1992	Egypt - Cairo	8 men	Found 1 trapped person after 80 hours
02/10/1995	Turkey - Dinar	15 men	Retrieving of dead bodies
17/08/1999	Turkey – Izmir (7,5 R)	23 men, 2 Rescue dogs	Found 1 trapped 9 years old child, after 3
13/11/1999	Turkey – Duse (7,2R)	26 men, 2 Rescue dogs	Retrieving of dead bodies
23/05/2003	Algeria (6,7R)	18 men, 2 Rescue dogs	Retrieving of dead bodies
27/12/2003	Iran – Bam (6,8R)	21 men, 2 Rescue dogs	Retrieving of dead bodies
25/02/2004	Morocco – Al Hoseima	22 men, 2 Rescue dogs	Retrieving of dead bodies
30/12/2004	Thailand – Cao Lak (7,9R)	24 men	Retrieving of dead bodies

- In general, when a so-called ''healthy'' person is entrapped, is not in a better situation than a person with disabilities.
- The most demanding situation concerning people with disabilities, is when the victim is deaf and dumb, or with mental health problems.

WHAT WE NEED is

- **technology that minimizes or eliminates victim's participation in its own rescue.**
- **information. Data bases, in municipality level, concerning the buildings and houses that people with disabilities work and live in.**
- **planning before a disaster is the best way to deal with it.**

An inclusive approach to search and rescue operations

Anders Fridborg, liaison officer SWIFT USAR-team

Assistant Chief Fire Officer, Greater Stockholm Fire Brigade

SWIFT USAR-team classified as Heavy Rescue according to INSARAG Guidelines

MSB – A new Swedish government authority for societal safety

- Stemming from the
  - Swedish Rescue Services Agency (SRSA),
  - the Swedish Emergency Management Agency,
  - and the Swedish National Board of Psychological Defence.
- From Jan 2009 MSB is responsible for matters concerning;
  - emergency prevention
  - preparedness, response and recovery
  - civil defence

MSBs work until now

- Mostly focussed on sensitization and operational guidance on Gender - and to some extent disabilities in
  - Training
    - Induction training for internal staff
    - SWIFT training
    - Induction training for Field staff
  - Gender analysis for long-term projects – as a base for project design
  - MSB; gender advisor for operational input
  - Handbooks on Disabilities and Gender Equality in operations

All persons have equal rights – also equal opportunity for survival!

Two views to that challenge:

- Disability issues
- Gender issues

Disabilities perspective on SAR operations

- Aim: Ensure that operations are exercised without discrimination!
- What is a disability?
  - Impairments, Disabilities, Handicaps...
- How to respond?
  - Hands-on advice for meetings with persons with special needs

Disabilities perspective on SAR operations

- Practical guidelines
- Training
- Analyze which needs are accurate for the recovery/build up phase

Gender perspective on SAR operations

- Gendered use of space
- Mobility restrictions
- Seeing to the health needs of different groups
- Difference in accessing humanitarian relief
- Ambition; to reach the whole population and to;
  - Strive towards gender balance (at least 40 % of underrepresented sex)
  - Ensure that women participate fully and on equal terms with men at all levels;
  - Increase protection of women and girls;
  - Ensure application of gender perspective throughout the project cycle

What are we doing now?

MSB handbook on persons with disabilities in emergency situations

MSB handbook on gender equality
– practical advice for international assistance (nov 2009)

For a copy send an e-mail to;
maja.herstad@msbmyndigheten.se

Conclusions and Recommendations

- Adopt an inclusive, holistic approach
- Training / awareness / attitudes
- Continue sharing of knowledge, experience and good practise

SAR OPS IN DISASTERS FOR VULNERABLE PEOPLE

HAF DISASTER RESPONSE TEAM KOMAK

OPERATIONAL CAPABILITIES

Wg Cdr George J. Beldecos, HAF

PURPOSE OF ESTABLISHMENT

- In 2000 a catastrophic earthquake struck Athens.
- The Hellenic Air Force Academy's installations suffered massive destruction.
- At that time, the available Civil Defence and Fire Brigade Rescue teams were directed – as expected – to important vulnerable civil incidents (residential buildings, factories, schools etc).
- It was thus realised that in case of a major natural disaster, sections of the population (such as the military and even more importantly service personnel families), which are not high in the prioritisation of provision of immediate USAR care, might become vulnerable as such.

PURPOSE OF ESTABLISHMENT

- A similar conclusion had already been reached in 1999 when an earthquake of 7.8 in Richter scale struck Turkey for 45 seconds.
- The Turkish Naval Base at Gulchuk suffered severe damages and as a result tens of naval personnel were killed buried in the rubbles.
- KISILAY (Turkish Red Crescent), AKUT (the NGO SAR Organisation) and other available forces were directed to civilian targets but not to the Naval Base, except for the Israeli Army Home Front Command, which rushed with rescue troops from Israel.
- Soon after, The Turkish Armed Forces established DAK (the NDSAR Battalion).

1999 TURKEY EARTHQUAKE
TURKISH NAVAL BASE

1999 TURKEY EARTHQUAKE
TURKISH NAVAL BASE

HAF DISASTER RESPONSE TEAM

MISSION

Established in 2000.

It intervenes in order to locate, provide initial medical care and remove entrapped persons in a safe and expeditious manner following a structural collapse.

Its role is primarily focussed on military installations, although, KOMAK may intervene in case of civilian structural collapse incidents or other disasters.

It also intervenes in case of major civil or military aviation accidents.

HAF DISASTER RESPONSE TEAM

OPERATIONAL CAPABILITIES

- Can deploy rapidly to the disaster area and begin DR ops
- Can conduct DR ops under any weather conditions
- Can conduct DR missions at home and abroad
- Provides emergency communication between MOB and the units involved
- Can conduct DR ops by using airborne, airland and underwater methods of insertion
- Can provide counceling on DR ops
- Can provide training support
- Can conduct joint and combined exercises with national and foreign DR units

HAF DR Team

Team Leader	O	1
Search & Rescue Specialists	WO -NCO	8 (2 x 4)
Medical Specialist	O	1
Dog Handler	NCO	1
TOTAL		7 (11)

HAF DR DOG TEAM

SAR DOG's DESCEND FROM HELO

SAR DOG's FAMILIARISATION PRIOR TO EMPLAINING ON A HELO

SAR DOG's EMPLOYMENT IN AVALANCHE CONDITIONS

HAF DRT MEDICAL SUPPORT TEAM

HAF DRT MEDICAL SUPPPORT TEAM

UPON ARRIVAL AT THE DISASTER AREA

- Dividing into sections
- Providing first treatment to the victims according to the ATLS principle
- Reaching the victims and treatment priorities

HAF DRT MEDICAL SUPPPORT TEAM

WORKING WITH THE DR RESCUE TEAM

- Victims' identification
- Decision about method of medical intervention
- Evacuation of the victim

HAF DRT MEDICAL SUPPORT TEAM
EVACUATION BY HELO

HAF DRT MEDICAL SUPPORT TEAM
EVACUATION BY HELO

CBRN CAPABILITY
provided by the Hellenic Joint CBRN Company
detection - sampling

CBRN CAPABILITY

provided by the Hellenic Joint CBRN Company

decontamination

CBRN CAPABILITY

provided by the Hellenic Joint CBRN Company

Medical Decontamination

MOBILE HYPERBARIC CHAMBER

TRAINING COURSES

Basic DR course

SAR Dog course

First Aid and Emergency Health Care course

NBC course

Mountaineering course

Basic Parachute & FF course

Diving course

EQUIPMENT

The HAF DR Team is equipped with new technology equipment to execute DR ops in various natural disaster environments.

-Individual Standard Equipment
-Portable Team Equipment
-Heavy Machinery

INDIVIDUAL STANDARD EQUIPMENT

Lantern
Mask
Protective Helmet
Harness
Protective Glasses
Overalls
Knee-pads
Protective Boots
Flashlight
Protective Gloves
Bad Weather Conditions Suits
Pocket Stove

DR EQUIPMENT

MOBILFIRE

DR EQUIPMENT

FLOOD LIGHTS – POWER GENERATORS

DR EQUIPMENT
TELESCOPIC CAMERA
ACOUSTIC DEVICES

DR EQUIPMENT
HYDRAULIC CONCRETE CUTTERS

DR EQUIPMENT
SPREADER AND CUTTER

DR EQUIPMENT
HYDRAULIC CONCRETE CUTTER

DR EQUIPMENT
DISC & CHAIN SAWS

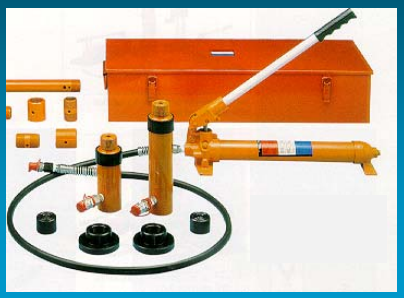
DR EQUIPMENT
DRILL

DR EQUIPMENT
HAMMER & IMPACT DRILLS

DR EQUIPMENT
AIR BAGS

DR EQUIPMENT
SUPPORTS

DR EQUIPMENT
HYDRAULIC JACK



DR EQUIPMENT
PNEUMATIC SCISSORS

DR EQUIPMENT
DESCENT TRIPOD

DR EQUIPMENT
ARTICULATED STRECHER

HEAVY MACHINERY
MISSIONS AND PURPOSES

- Lifting and removing elements using chains
- Loading trucks with debris taken out of the destruction site
- Breaking through walls and drilling holes with the hydraulic hammer
- Opening roads blocked by wreckage
- Covering contaminated areas with soil

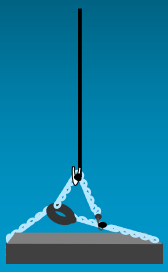
TYPES OF HEAVY MACHINERY

- TRACK EXCAVATOR
- TRACK/ WHEEL LOADER
- BACK HOE LOADER
- CRANE
- DUMP TRUCK
- CARRIER

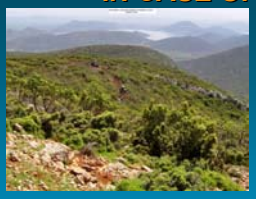
USE OF HEAVY MACHINERY

USE OF HEAVY MACHINERY

LIFTING CHAINS



OPENING OF ACCESS ROADS IN CASE OF ACCIDENTS



COMMUNICATION EQUIPMENT

OPS & COMS MOBILE CENTER

- Mobile and Satellite phones
- Hand, vehicle, fixed & marine radios
- Mobile Satellite & Ground terminals
- Computers – broadband internet
- Digital monitoring systems
- Disaster & hydrographic digital mapping

MEANS OF DEPLOYMENT AND INSERTION

During the catastrophic forest fires in 2007 in the Mainland various groups of vulnerable people have been entrapped in villages surrounded by huge fronts of flames fast approaching their settlement and with no available routes of escape, since village roads were blocked.

Those, who opted to escape through blocked passages found tragic death. The saddest event was the death of a mother with her four children, who were all found dead inside their car.

FOREST FIRES 2007

FOREST FIRES 2007

MEANS OF DEPLOYMENT AND INSERTION

Facing this situation the HAF offered the only possible route of escape, i.e. by SAR helicopter. To this end, vulnerable groups of population were instructed to gather in open areas, such as soccer grounds, and were evacuated by air.

During the floods that followed the HAF Underwater Operations Team also managed to rescue vulnerable people (i.e. children and elderly) by dinghies, which literally arrived to their otherwise unapproachable doorsteps.

Taking into account the fact that the degree of vulnerability in SAR operations also depends on the speed of arrival of rescue forces the HAF strives to use all means of available methods of transportation and means of insertion to the scene in order to provide a fast and efficient SAR service.

TRANSPORTATION

HAF C-130 – C27 - SUPER PUMA – CH 47D – AB 206

HN ships

Rescue vehicles

Ops & Coms Mobile Centre

Ambulances

Command & Team vehicles

Rescue dog vehicles

TRANSPORTATION MEANS

A/C C-130

TRANSPORTATION MEANS

SAR "SUPER PUMA"- AB 206 - CH 47D

TRANSPORTATION MEANS

HN SHIPS - HOVERCRAFTS

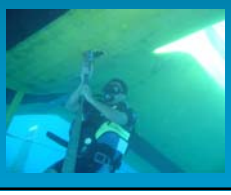
AIRBORNE INSERTION

HELICOPTER INSERTION

HELICOPTER INSERTION

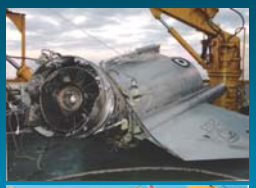
DIVING INSERTION

UNDERWATER SALVAGE OPS



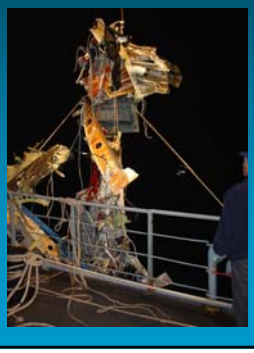
SALVAGE OF MIRAGE 2000

594 m

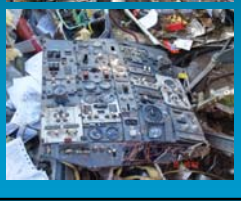


SALVAGE OF CHINOOK

964 m



«HELIOS» AIRLINER ACCIDENT



«HELIOS» AIRLINER ACCIDENT

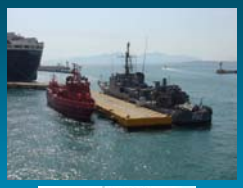
FOREST FIRES 2007

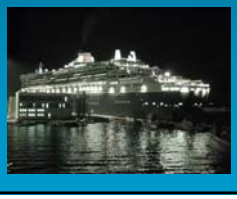
FOREST FIRES 2007

ATTICA FOREST FIRES 2009

EVIA ISLAND FOREST FLOODS 2009

OLYMPIC GAMES 2004
SECURITY OF PIRAEUS HARBOUR





PROVISION OF COUNSELING AND TRAINING

• Taking into account the fact that following a major natural disaster the degree of vulnerability of sections of population depends on their knowledge and training in order to protect themselves and probably save others, the HAF in cooperation with the Ministry of Education provides specialised training courses to Boroughs all over Greece.

• KOMAK also provides training and participates in joint exercises with N.G.O. SAR Organisations

PROVISION OF COUNSELING AND TRAINING

PROVISION OF TRAINING TO N.G.O. SAR ORGANISATIONS

INTERNATIONAL CO-OPERATION

EXERCISES "DOLHIN 05 & 06"

MD EXERCISES "DOLPHIN" O5 & 06

MD EXERCISES “DOLPHIN” O5 & 06

MD EXERCISES “DOLPHIN” O5 & 06

CO-TRAINING WITH THE SWISS RESCUE TROOPS

CO-TRAINING WITH THE FRENCH CIVIL DEFENCE

CO-TRAINING WITH THE IDF HOME FRONT COMMAND

CO-TRAINING WITH THE GERMAN ARMY

HUMANITARIAN RELIEF EXERCISE "COLIBRI"

GERMANY 2004

PARACHUTE CO-TRAINING

GERMANY, FRANCE, UK

CO-TRAINING WITH US NAVY DIVERS

CO-TRAINING DR EXERCISE
KOMAK – AKUT
PATRAS 2000

SERBIAN GENERAL STAFF VISIT TO HAF ENG WING
JUNE 2007

JOINT MILITARY NDSAR EXERCISE
DAK - KOMAK
ANKARA NOV 2006

JOINT MILITARY NDSAR EXERCISE
KOMAK - DAK
ANKARA NOV 2006

JOINT MILITARY NDSAR EXERCISE
KOMAK - DAK
ANKARA NOV 2006

JOINT CIMIC NDSAR EXERCISE
ANKARA DEC 2006

JOINT CIMIC NDSAR EXERCISE
ANKARA DEC 2006

TURKISH ARMY ENGINEER
TRAINING CENTRE
IZMIR 2007 -2008

TURKISH ARMY ENGINEER
TRAINING CENTRE

TURKISH PfP TRAINING CENTRE – ANKARA
TACTICAL CIMIC OPS COURSE
April 2008

JOINT HELLENIC-TURKISH MILITARY DISASTER INTERVENTION EXERCISE
MAY 2008

JOINT HELLENIC-TURKISH MILITARY DISASTER INTERVENTION EXERCISE

MAY 2008

JOINT HELLENIC-TURKISH MILITARY DISASTER INTERVENTION EXERCISE

MAY 2008

EU DEPLOYABLE AIR WING

EXERCISE "BAPEX"

TGS – DAK STAFF VISIT TO HAF ENG WING

JORDANIAN ARMY VISIT TO HAF ENG WING

STAFF VISIT TO CHINA

HAF STAFF VISIT TO EGYPT

STAFF VISIT OF FRENCH AVIATION AUTHORITY

STAFF VISIT TO THE CIVIL DEFENCE AUTHORITY OF MONTENEGRO

NEED FOR FURTHER COOPERATION

CONSILIUM

SCOPE OF FURTHER COOPERATION

• The HAF Disaster Response Team, subject to approval by the HAF General Staff, is open to all means of cooperation with international, European and national USAR Organisations and Teams. This might include participation in working groups, conferences, co-training and joint exercises.

• It also wishes to consider proposals for the inclusion of any procedures, methods or policies that may further enhance the existing ones, in regard to SAR of vulnerable groups of population

Session III: Catalogue of Ideas

"Human rights in Disasters: Search and Rescue Operations in disasters especially for vulnerable people"
Athens, 5-6 of November 2009

Catalogue of Ideas

1) Information regarding the number of people with disabilities, as well as their working places and homes should be collected in a data-bank by municipalities and central operational services

A specialized sign (mark) outside the buildings where vulnerable people work or stay can probably be used to facilitate decision making and rescue procedures in case of a crisis, e.g. earthquake or fire.

However, the issue of personal data protection is very critical and the above proposals need further discussion

2) There is a significant differentiation among EU countries regarding existing prevention measures and operational procedures for protecting vulnerable groups of population

The Swedish model seems to be the most advanced, since a specialized handbook for the search and rescue of people with disabilities has been issued ("Persons with disabilities in emergency situations-Handbook for international emergency response operations personnel")

Catalogue of ideas

3) A number of simplified measures could be proven effective for vulnerable people protection

The working place for people with disabilities could be chosen to be only on the ground floor of the building so that to facilitate their evacuation in case of an emergency.

A colleague of them could also be assigned to help them evacuate the building under such circumstances.

4) Training of the human environment of people with disabilities is vital

Families, school environment and occupation environment of those people should be aware of elementary guidelines for helping them in case of emergency.

Specific Comments

Comments by the workshop participants were made regarding the following issues:

- Legal System
- Regulations Guidelines
- Search and Rescue operations
- Prevention

• Legal System

- There is a need to develop and introduce in appropriate way relevant supplements to the texts of United Nations "The standard rules on the equalization of opportunities for people with disabilities" (The appendix to resolution N 48/96 on 20 December 1993) in the area of education, informing and relevant public services to the observance of the rights and equitable access to meeting the needs of people with disabilities (in the field of disaster risk reduction and reducing vulnerability, the protection of their life and health against emergencies

-Legal aspect of running a database by Civil Protection

-Positive law should try to bring precisions to the scope of fundamental principle like equality before law and non-discrimination

-Implementation of the UN convention of 2006 about disabled (A/61/611 Distr.: General, 6 December 2006)

• Legal System

-Building on existing laws and codes is needed

-Extend lows to include elements of human rights based approach, especially in the field of disaster prevention and reduction can be very useful

-By using article No 121 of declaration of human rights about discrimination the Council of Europe legally supporting rights and concrete actions can be achieved

-Clarification of the various definitions of concept used and particularly the concept of vulnerable groups: not only disabled but also hard to reach people, is needed

-Be very careful with the idea of derogation of human rights in time of emergency: Is it needed in the kind of disasters we consider?

• Regulations Guidelines

-There is a need to elaborate in parallel with practicing in the framework of the municipal and national campaign on informing and warning of the population same specific information materials for the most vulnerable people (children, elderly, and disabled included) aiming on their awareness raising

-Adequate information for vulnerable people about how rescue operations can be made should be collected

-Expanding of current national guidelines, considering issues on human rights and disaster management is needed

-Considering international guidelines on the subject, such as the UN Inter-Agency Standing Committee (IASC) can be very constructive

• Regulations Guidelines

- Using either conceptual approaches or to purely operative measures is not effective: both domain need each other to be efficient globally

- If not exists, there is a need to frame a standard for reporting at EU level (at least) on:

- Activities (events characteristics)
- Outcomes epidemiological and medical status of victims on the scene, and followed within 1 month and later
- Lessons Learned to share more accurately experiences

• Search and Rescue Operations

-The states must ensure adequate training and equipping of rescue teams, medical people, and the nursery, as well as related to them brigades so that to enable search, rescue and administration of first aid to people with disabilities in major disasters and in other emergencies

-Cooperation among EU USAR teams is needed

-Working and doing simulacrums in different scenarios with different rescue teams and comparing results could be operationally useful

- Collecting information for entrapped victims, like disabled people by relatives or neighbors, is critical for the search and rescue procedure. However, for tourists this can be very difficult.

• Search and Rescue Operations

- A handbook for international emergency response operations personnel has been issued by the Swedish Rescue Services Agency.

This handbook attempts to document the needs of persons with disabilities in case of emergency situations. It can be very useful to the ones who are going to take part in rescue actions in emergency situations, such as international emergency response operations personnel, aid workers and volunteers

-A special care and particular attention has to be paid in places in which vulnerable people are present as this implies more difficulty in evacuation procedures and a high percentage of victims

-The USAR covers an essential and difficult service that lies between the prevention measures and the support to survivors

• Search and Rescue Operations

-International guidelines for search and rescue operations exist in UN and INSARAG

-Priorities should be addressed in search and rescue (for example children should be considered of high priority)

-Networking with other rescue teams in needed in order to propose plans for research on new technologies applied on search and rescue operations

- Gathering existing experiences in order to systematize them if possible and identify gaps to be filled (technically) would be very important

• Search and Rescue Operations

- A list/inventory of existing USAR protocols and technologies used is need

-The USAR must necessarily be also a service that offers the best of the resources, expertise and technology to serve all (tools, training, sharing)

-Location of people with hearing or sight impairment, as well as unconscious victims is very difficult. It seems that smell is very critical in such cases as a location method

- Training of rescue teams is very important. Simulated operations can be conducted at a specialized debris camp that is situated in Pisa

• Prevention

-Education of crisis manager as well as preparedness and education of people with disabilities and of people that take care of them is needed

-Up to date databases about localization of disabled persons and specification of handicapped people is needed

-Measures allowing to get in touch with disabled, specifically non-hearing people are necessary

- There is a need to define duties, responsibilities of bearers in agencies involved in DRP-DRR. Especially in the context of the national platforms

• Prevention

- People with disabilities today are over 10% in the world (about 650 million of people) and consist 15% of the EU population.

The results of the study "Earthquake Protection Policy for People with Disabilities in Greece" conducted by the Earthquake Planning and Protection Organization (E.P.P.O./Gr) can be used for protecting vulnerable groups of population in disasters

-Issues that have the greatest impact on people with disabilities include: planning, notification, evacuation, emergency transportation, sheltering, access to medical care and medications, access to their mobility devices or service animals while in transit or at shelters and access to information

-The existence of a social environment and social networking could be proven very significant for persons with disabilities

• Prevention

-The on-going project "PROMYLIFE" (How to Better Protect my Life in Major Emergencies), aims at improving the preparedness of the public and in particular of the vulnerable groups (elderly, children, disabled and disadvantaged people, etc.) in major and extreme events (Coordinated by the Development Enterprise of Achaia Prefecture (NEA) – Greece).

The main objective is to prepare guidelines on the facilitation of information provision to the general public and the vulnerable population groups

- Promoting empowerment of the population is considered very useful. It can be achieved by:

- Education
- Close cooperation among deciders and rescuers at any phase of management
- Close decision making

• Prevention

-Early location of people with disabilities in emergency situations create the need to investigate methods based mostly on human body smell

-Additionally to existing rescue dogs, chemical methods ("electronic noses") seem be he best solutions and hence must be exploited to maximum

- GPS technology, as chain-necklace or bracelet type for citizens and especially for vulnerable people can be used

Council of Europe
Conseil de l'Europe

Under
the aegis of the

General Secretariat for
Civil Protection, Greece