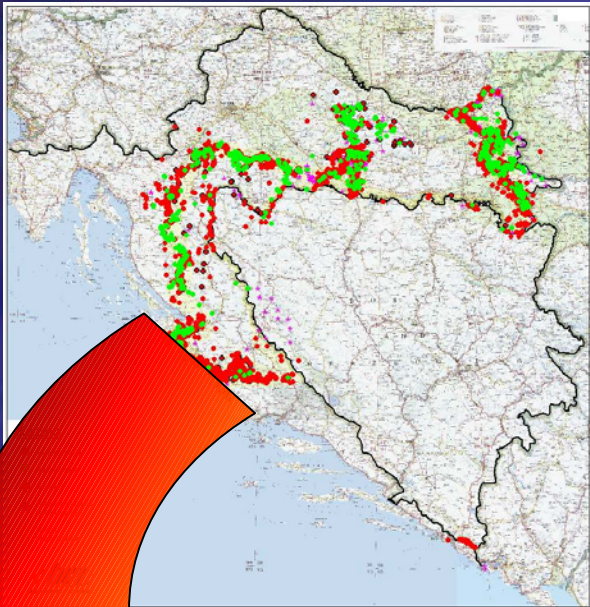




CROATIAN MINE ACTION CENTER

MINE PROBLEM IN THE REPUBLIC OF CROATIA

MINE SITUATION IN THE REPUBLIC OF CROATIA



- 132,186 AP landmines and 79,408 AT landmines registered up to now
- Mine suspected area - around 1,700 km²
- 14 of the 21 Counties in Croatia are mine contaminated
- Mine contaminated areas comprise: infrastructure facilities, houses and house yards, arable land, gardens, orchards, meadows, forests, dense evergreen underbrush and economic facilities

1 million mines and UXO-s

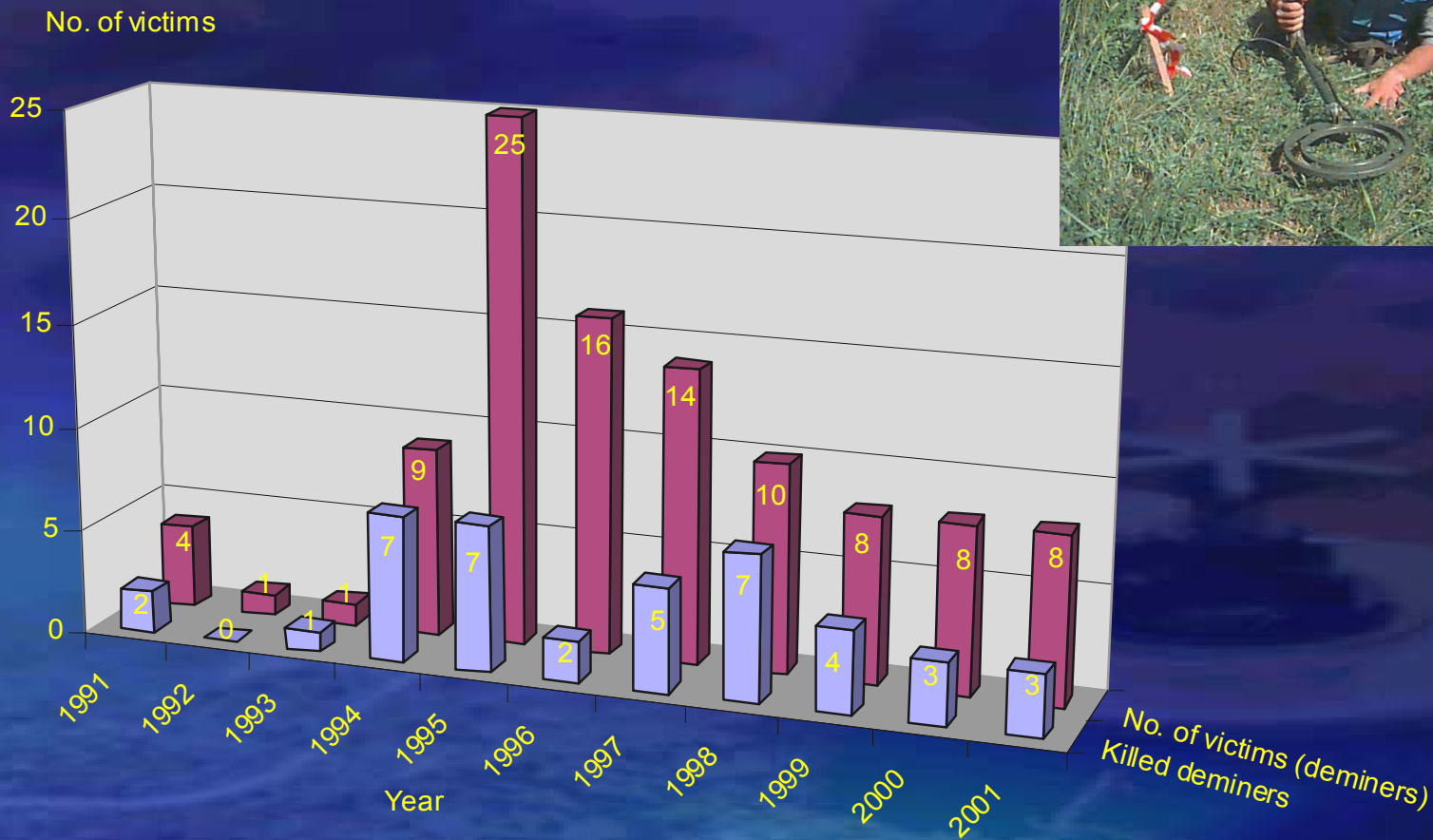
Mine victims

In the period from 1991 until 31 December 2001 in the Republic of Croatia - 1835 mine victims were recorded.

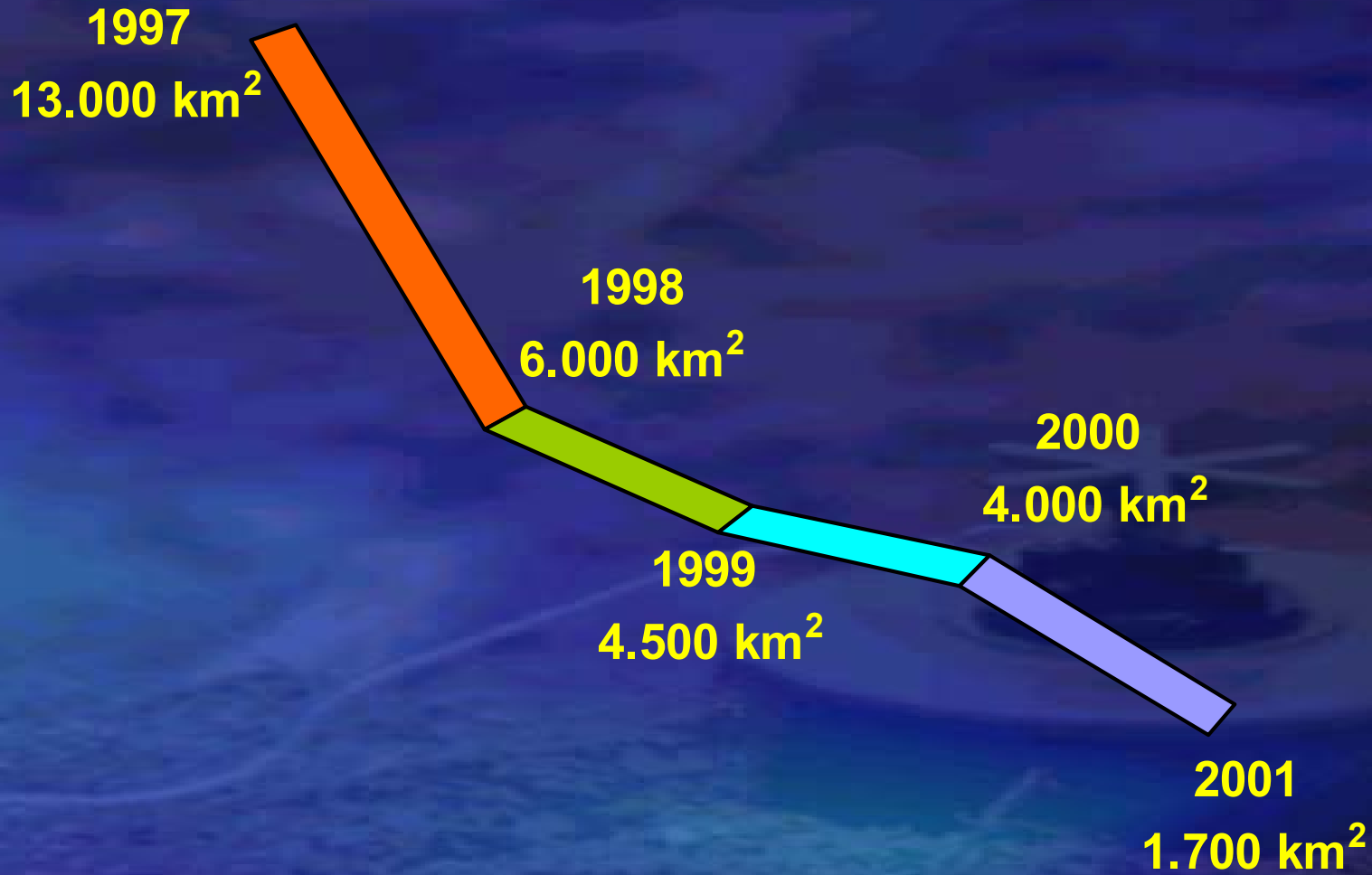


From the fall of 1995, when the war was over and displaced persons started to return to their homes many civilians have been injured in the mine suspected areas.

MINE VICTIMS - DEMINERS

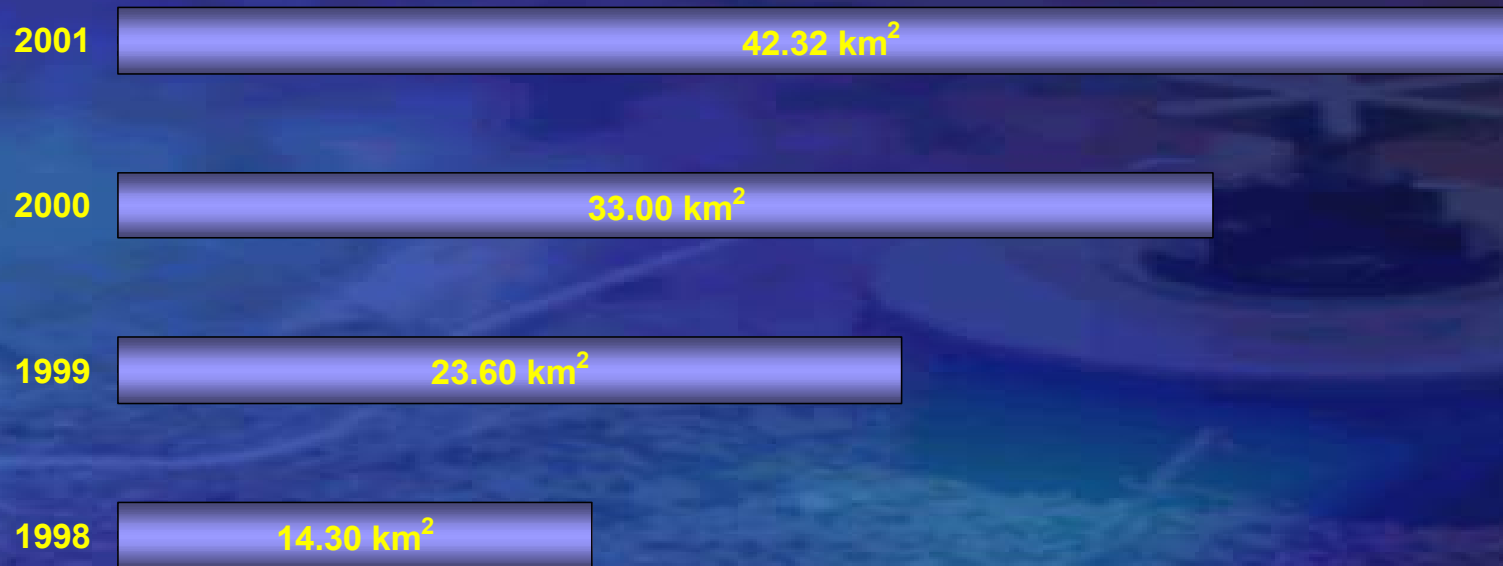


REDUCTION OF MINE SUSPECTED AREA IN CROATIA

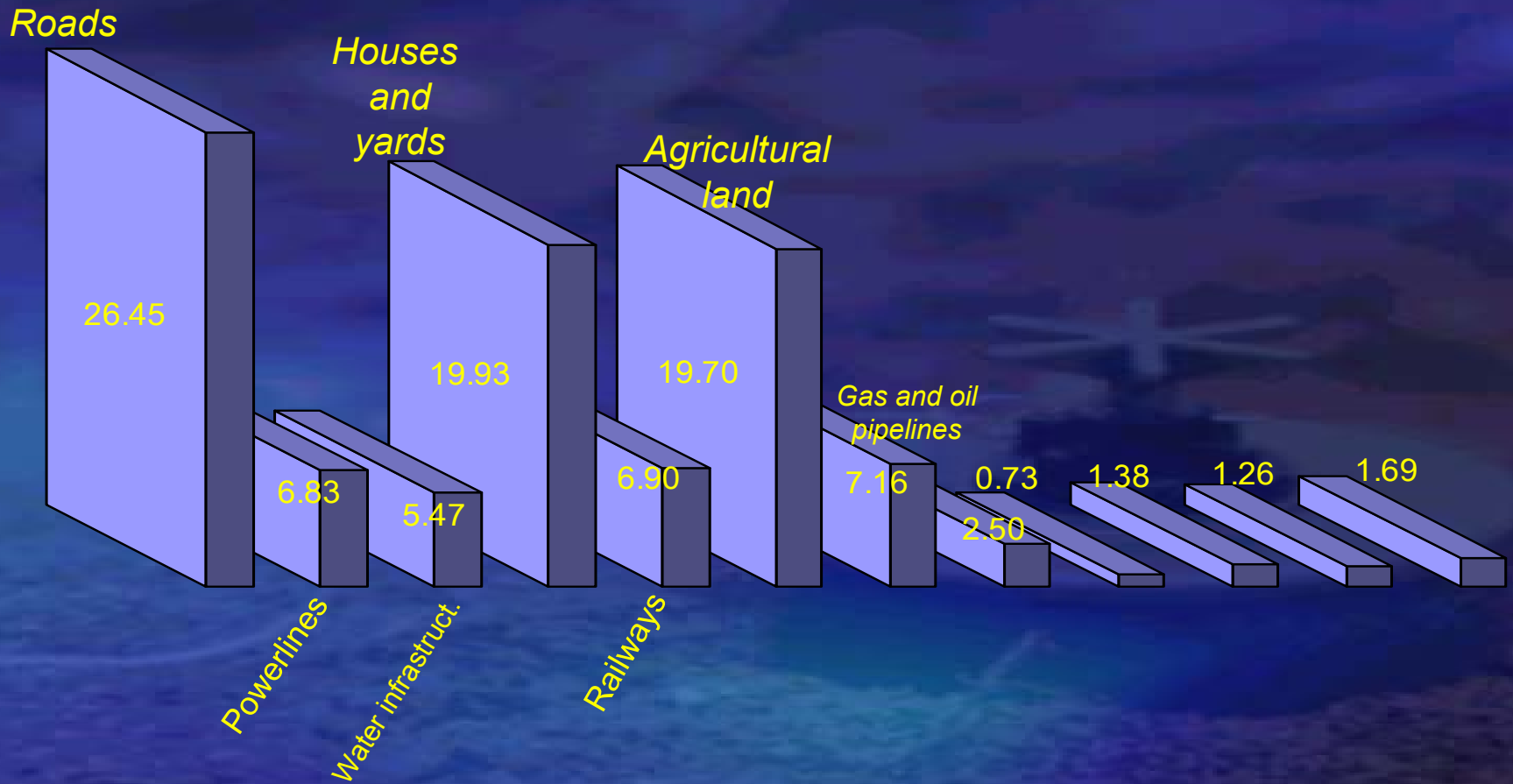


THE AREA HANDED-OVER TO THE COMMUNITY

The area of 113.22 square kilometres was technically surveyed and cleared over the period of the last four years, and returned to the community for use. A graph is showing an increasing value of the size of the areas being returned to the community. If this trend continues, the objectives defined by the National Mine Action Plan will be accomplished.

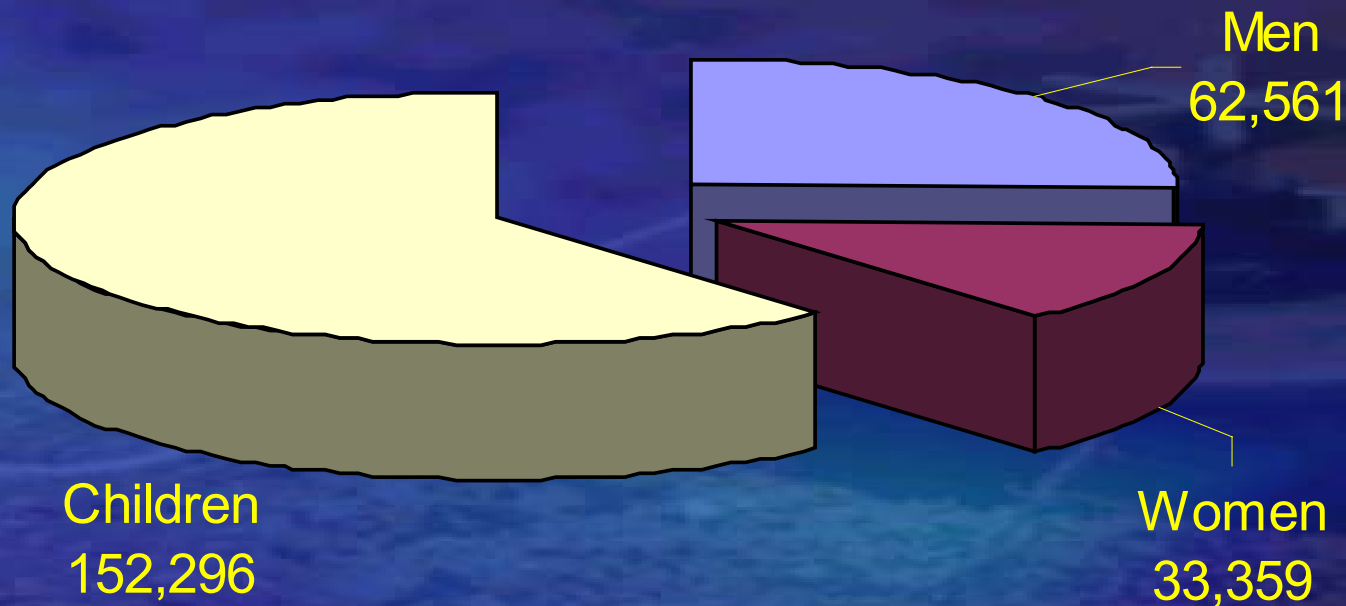


STRUCTURE OF MINE CLEARED AREA (%)

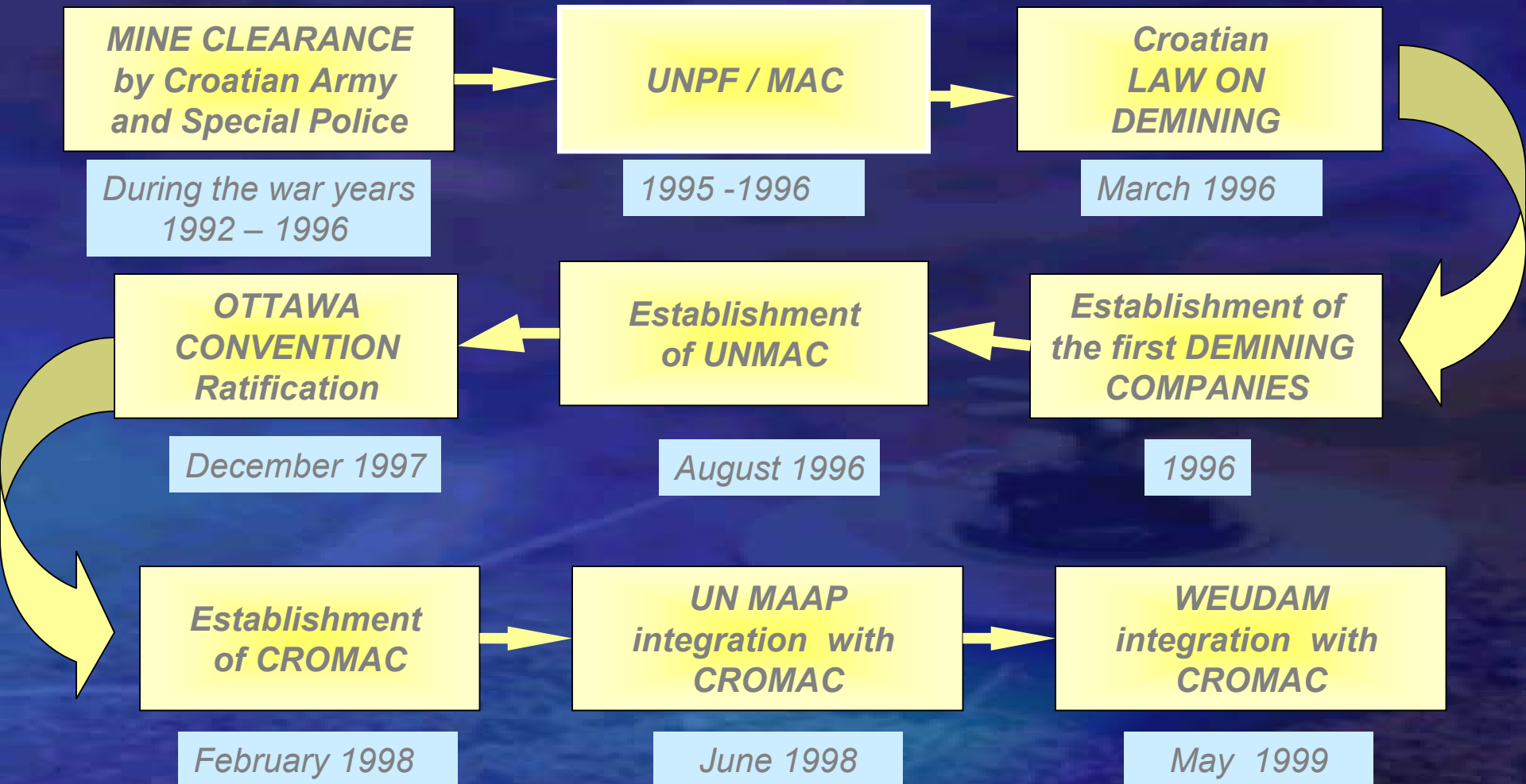


Mine Risk Education

Mine Risk Education is carried out simultaneously with the demining activities. It has been carried out in Croatia since 1995, initiated by UNICEF and Ministry of Education and Sport as a part of the campaign for the pilot project in Dubrovnik area. That project eventually evolved in the national project, and was carried out by ICRC (International Committee of the Red Cross) and the Croatian Red Cross. CROMAC has had a role of a coordinator in this activity. The subjects involved in Mine Awareness in the past 4 years have educated 248,216 persons.



DEVELOPMENT OF MINE ACTION IN THE REPUBLIC OF CROATIA



ORGANIZATION OF MINE ACTION IN THE REPUBLIC OF CROATIA

Law on demining

PARLIAMENT

*International
standards for
mine action*

*Book of Roles
on demining*

**GOVERNMENT
CROMAC'S
COUNCIL**

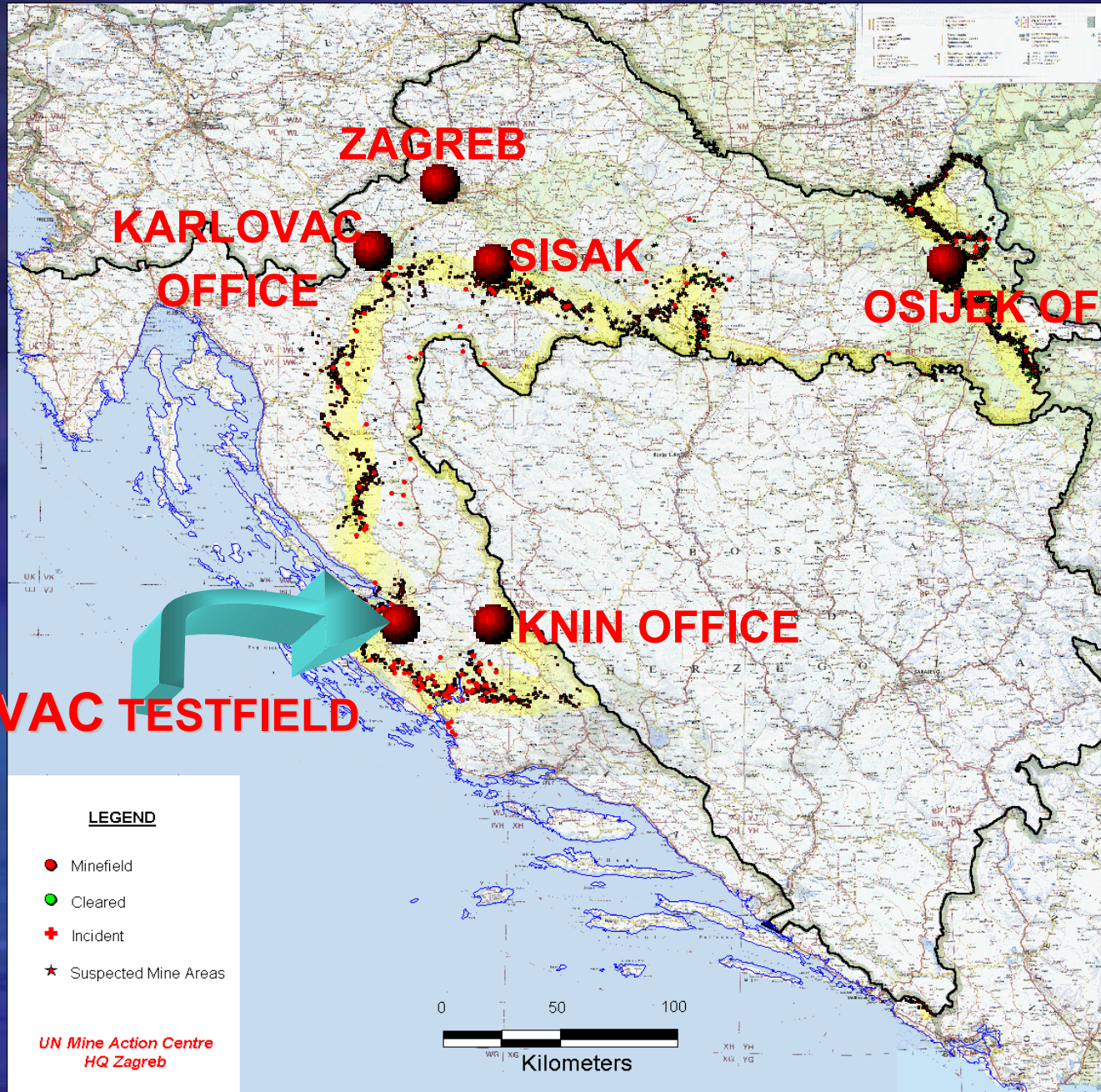


Representatives of
8 Ministries

CROMAC

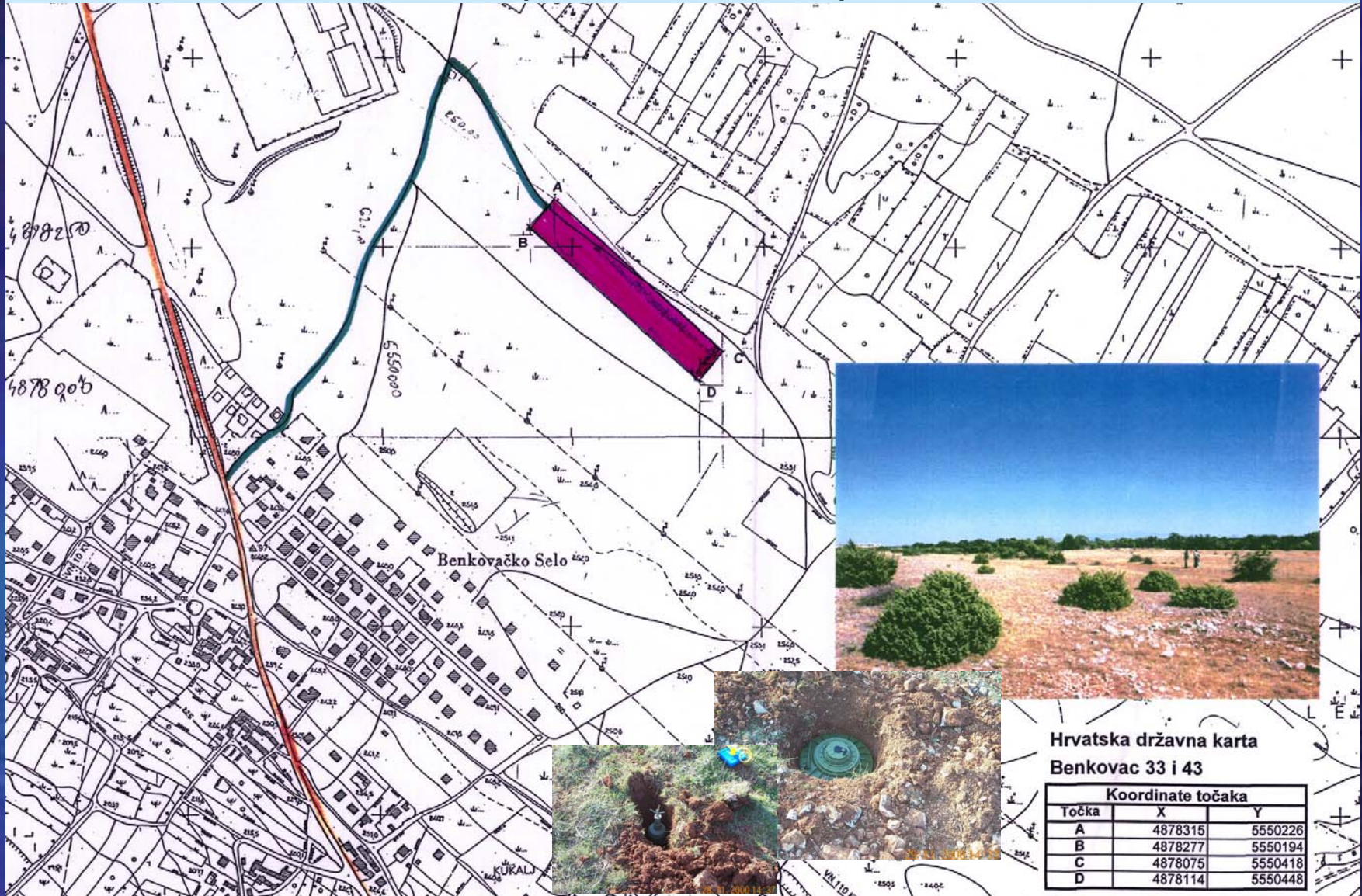
CROMAC's SOP

LOCATION OF THE BENKOVAC TESTFIELD IN CROATIA

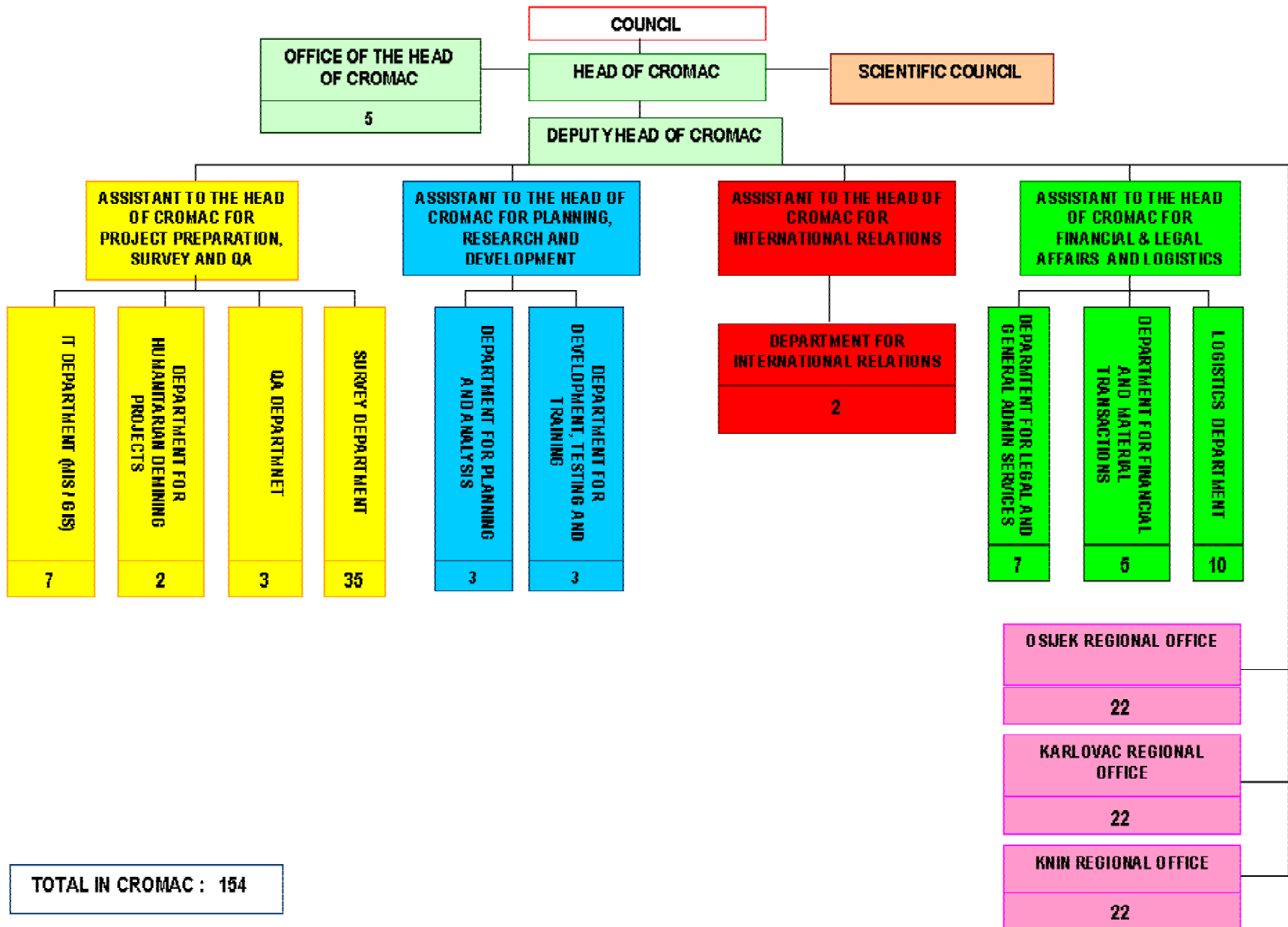


ARTIFICIAL TESTFIELD

(1000 landmines)



CROATIAN MINE ACTION CENTRE ORGANIZATION CHART



REGIONAL OFFICE ORGANIZATION CHART

HEAD OF REGIONAL MINES OFFICE

OPERATIONS DEPARTMENT
17

QA DEPARTMENT
4

PROJECT PREPARATION TEAM LEADER / ADVISER

1

DATA BASE ADVISER

1

ASSOCIATE FOR PROJECT PREPARATION AND
MINE RISK EDUCATION

1

OFFICER FOR GENERAL ADMINISTRATIVE
SERVICES

1

DEMINGER / SURVEY TEAM LEADER

2

DEMINGER / SURVEYOR

9

DEMINGER MACHINE OPERATOR

2

QA SUPERVISOR / TEAM LEADER

1

QA SUPERVISOR

3

TOTAL NUMBER OF PERSONNEL IN RO : 22

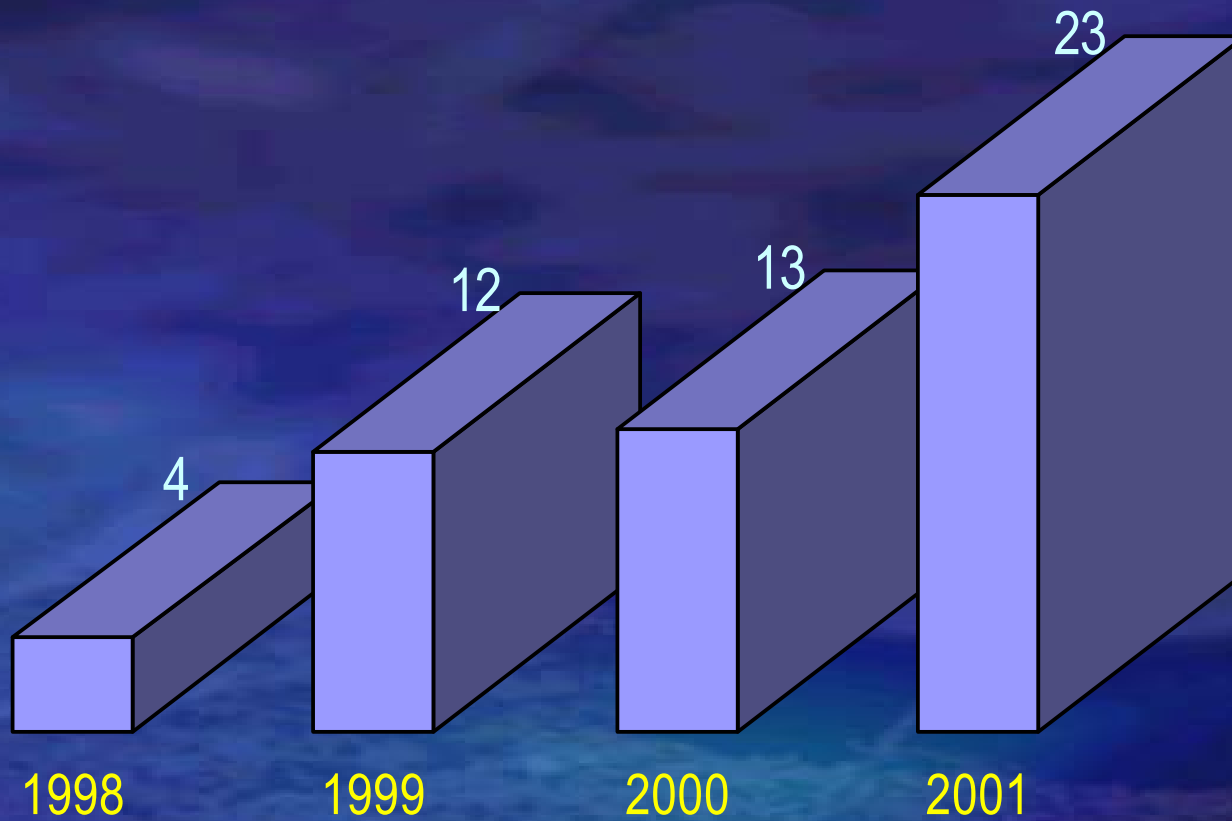
Demining forces

Technical survey activities in Croatia are conducted by licensed deminers with the assistance of demining machines and other demining equipment.

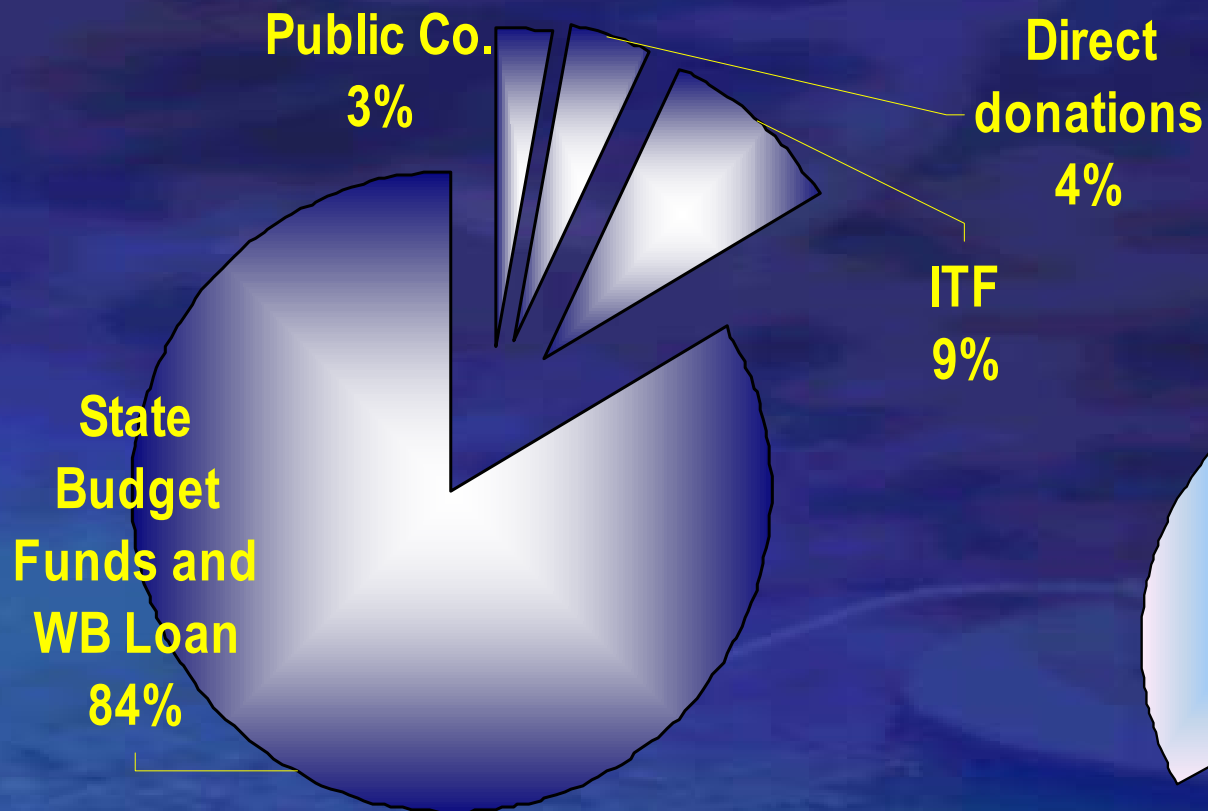
The overall demining capacity of Croatia (23 commercial demining companies) consists of:

- Deminers – approximate number 420
- Auxiliary workers – approximate number 120
- Metal detectors – approximate number 320
- Heavy demining machines – 4 machines
- Medium weight demining machines- 6 machines
- Light demining machines – 8 machines
- Vegetation cutters – 9 machines
- Mine detection dogs – approximate number 40

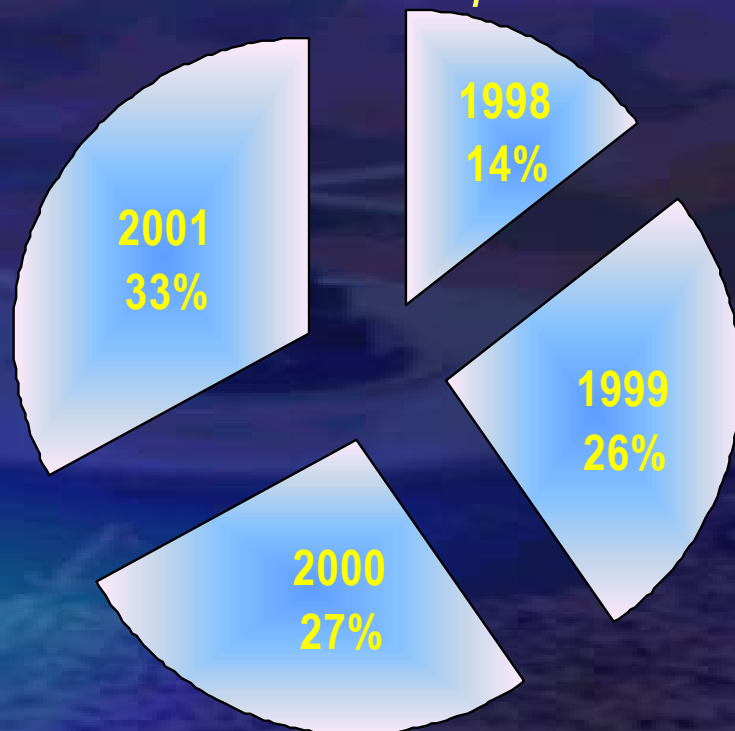
Demining Capacity review and development (number of companies)



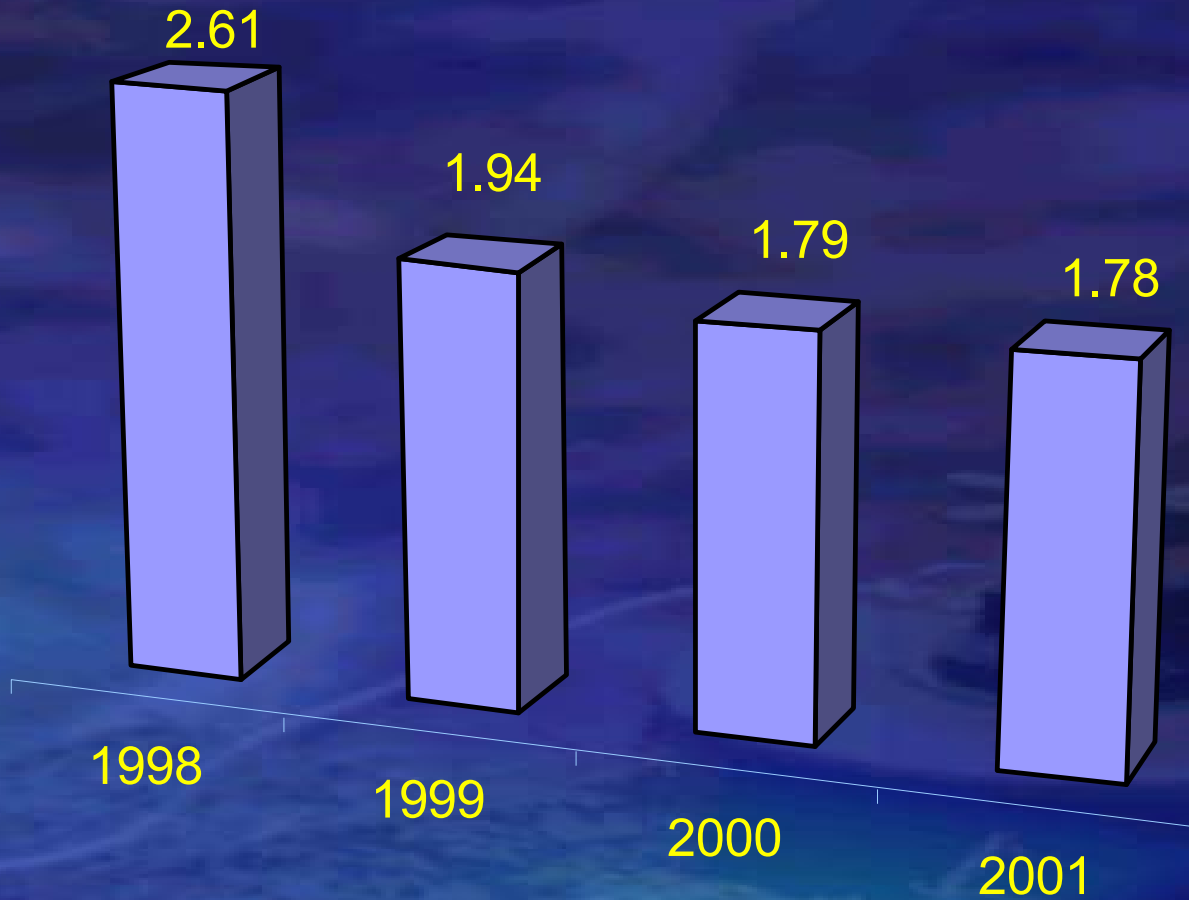
Financing of demining activities in the Republic of Croatia



Review of the spent funds



The average annual demining price (in Euros per m²)



SCIENCE AND MINE ACTION

Current International science projects

ARC

The European Commission is financing the ARC project (Airborne Minefield Area Reduction). The project started on 2 January 2001 with the anticipated duration of 30 months, and it has involved 6 partners from European Commission and CROMAC.



SCIENCE AND MINE ACTION

SMART

The European Commission is financing the SMART project (Space and Airborne Mined Area Reduction Tools). The project consortium consists of CROMAC and several distinguished European research centers. The project started on 2 May 2001 with the anticipated duration of 36 months



SCIENCE AND MINE ACTION

MEDDS – Nomadics

The MEDDS-Nomadics project (Trace chemical mine detection data collection) is financed by the American Army, which is implemented by its organizations NVESD and CECOM. The companies involved in this project are Mechem, JAR, Nomadics, SAD, NVESD and CROMAC.

BIOSENS

The European Commission's project BIOSENS IST-2000-25438 is researching the possibilities of using the biological sensors in discovery of mines or explosives. One of the organisation that is in the consortium, SRSA (Swedish Rescue Services Agency) approached CROMAC regarding their need of a special testing polygon for vapour sensors, i.e. biosensors.

Dog breeding

PHD (Dog in humanitarian action) is a non-profit organization, established at the end of the year 2000 that has organized and carried out the dog training according to the CROMAC Rules and Regulations. The second generation of dogs is currently finishing their training program. The members of the Scientific Council (prof.dr.sc.M.Bauer) and PHD are involved in the development of the organization and the Rules and Regulations on dog breeding in Croatia.

PELAN

The proposal for the improvement and implementation of the PELAN machine (developed in USA by professor Vourvopoulos, University of Western Kentucky) was prepared at the end of December. The proposal was prepared based on the invitation from IAEA, and then sent to IAEA through the Ministry of Commerce together with its recommendation.

BULRUSH

Technical verification of the sonar system with the consortium EC IST BULRUSH and the preparation of the operative research and evaluation in Kopacki rit with the Canadian support.

Demining machines

Samson

MV - 2



Hydrema 910



SKANJACK


Mine detection dogs



Approximate number: 40 dogs

County mine plans

BENEFITS FOR CROATIA

- § *Detailed information about the mine and UXO problem*
 - § *Better planning*
 - § *Better and more precise priorities*
 - § *Better cooperation with the donors*
 - § *Easier to connect the mine action process to the reconstruction process*
 - § *Risk reduction for the population*
 - § *Improved medical services for mine victims*
 - § *Save time and money*
- 

THE MAIN OBJECTIVE OF THE PROJECT: **County Mine Action Plan**

Develop new County Mine Action Plans for Croatia with special attention to the socio-economic impact of the mine problem.

Transfer the experiences from the pilot project (Sisacko-Moslovacka County) to the rest of the counties.

The priorities from the County Mine Action Plans for 2002 will form the foundation for CROMAC's National Mine Action Plan for 2003

WHAT IS MINE ACTION?

1. LAW, RULES AND REGULATIONS

- § National Law
- § International obligations
- § International Mine Action Standards

2. ORGANIZATION OF INSTITUTIONS

3. SURVEY

- § National survey Level 1 - general marking with boards
- § Impact survey Socio-economic
- § Technical survey Level 2 - including area reduction

4. MARKING

- § Fencing

5. MINE AWARENESS AND MINE INFORMATION

- § Mine Awareness shall follow survey and marking
- § Mine Information is a tool to bring the content of Mine Action Plans to the population

6. MINE CLEARANCE Level 3 Survey

7. VICTIM ASSISTANCE

8. POST MINE ACTION IMPACT Level 4 survey

- § Including environmental

9. BAN LAND MINES - production, use, buying, selling, crossing of borders, stockpiling, and destruction of existing stocks.

The Government has delegated this work to the Ministry of Defense.

OUR GOALS

- Mine clearance of the Croatian territory by 2010 continuously developing and improving the demining system
- Summary all our knowledge and experience and establishment of a scientific institution that will be able to provide help to all countries in the region and wider
- Creation of conditions for development of demining companies, to enable them to be competitive in the foreign markets

Mine clearance of the Croatian territory by 2010 will only be accomplished by developing and full functioning of all mine action components, with particular emphasis to:

- Development of the survey process with a purpose of identification of actually mined areas, that will result in more accurate preparation of the humanitarian demining projects
- Development of methodology and technology of survey activities with a purpose of area reduction as a part of the process of cancellation of clear areas (reduction of mine suspected areas)
- Development of faster, safer and more efficient demining as a part of the mine clearance process, and based on technologically improved detection methods and assisted by demining machines
- Development of marking and fencing activities of mined and mine suspected areas, to prevent mine casualties
- Development of a comprehensive and more sophisticated Quality Assurance procedure
- Development and implementation of mine risk education programmes to prevent mine casualties in mine contaminated areas



HRVATSKI CENTAR ZA RAZMINIRANJE

THANK YOU!