

Lessons learned through partnership between Ministry of Defence of Bosnia and Herzegovina and Norwegian People's Aid on implementation of capacity building for Demining Battalion of Armed Forces










Norwegian People's Aid

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Why Demining battalion?

In 2009, NPA set criteria for determining of the national organization whose increase of capacity would be supported :

-  Existence of the mine action organization until fulfillment of obligations under Mine Ban Treaty.
-  Operation of chosen organization should be in accordance with the goals of the national Mine Action Strategy and the priorities set by the authorized BiH government body.
-  It must be a non-profit organization
-  Abiding by international and local mine action standards and operation in accordance with the standard operational procedures that exclude what is usually referred to as „military demining“.
-  Full monitoring by Bosnia and Herzegovina Mine Action Centre over activities on mine clearance and technical survey, including testing, certifying and other quality management measures.
-  Support in implementation of strategic goals set by the NPA strategy.
-  Guarantee that the granted assets will be used only for demining in Bosnia and Herzegovina.



State of Demining battalion resources in 2009:

1. Human resources with 10 year field experience in humanitarian demining:

- 34 manual teams with 68 team leader/deputy of team leader, 238 deminers;
- 9 mechanical teams with 9 team leaders and 18 machine operators;
- 9 MDD teams with 9 team leaders/dog handlers and 9 dog handlers;
- 6 non-technical survey teams with 6 team leaders/surveyors and 6 surveyors;
- 34 medics;
- Beside above mentioned operational resources Demining battalion has educational/training team and internal quality assurance team.

2. Basic equipment, machines and MDD's,

- 125 metal detectors,
- 6 mine clearance machines and
- 18 mine detection dogs.



- 1. Inadequate age structure:** needs to recruit and educate new professional soldiers to replace 190 deminers-soldiers that crossed the age limit of 35 year until 2011.
 - 17 teams in 2011 only!
 - Additional 75 deminers-soldiers for replacement in 2013 and 2014.
- 2. Insufficient number of demining machines:** 6 Božena 1 i 2 (2 accredited for vegetation removal, 4 inoperative); 1 Božena 5 (inoperative); 2 MH-05 (1 inoperative), Digger D-3 (inoperative)
- 3. Insufficient mine detection dogs capacity:** 50% of dogs are old
- 4. Productivity and efficiency:** The Demining battalion had human resources to even double its output. Increase in productivity was limited because of imbalance between human resources, equipment, mine clearing machines and mine detection dogs, and the lack of logistical support.



CAPACITY BUILDING FOR BiH MINISTRY OF DEFENCE/DEMINEING BATTALION

| Objectives | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|--|--|--|--|--|
| Partnership and cooperation | Coordination body MoU between MoD and NPA BiH | Coordination body MoU between MoD and NPA BiH | Coordination body MoU between MoD and NPA BiH | Coordination body MoU between MoD and NPA BiH | Coordination body MoU between MoD and NPA BiH | Coordination body MoU between MoD and NPA BiH |
| Transfer of knowledge through improvement of project management, operational planning of mine clearance and technical survey operations | <u>Workshop:</u> Procedures of MDD clearance on technical survey tasks, Level I (dog handlers and team leaders) <u>Practical exercise:</u> MDD activities on technical survey tasks on mechanical ground prepared area | <u>Workshops:</u> Procedures of MDD clearance on technical survey tasks, Level II (Site managers), Lessons learned during implementation capacity building plan” | <u>Workshop:</u> Lessons learned during implementation of capacity building plan <u>Training course:</u> MDD trainer course | <u>Workshops :</u> Evaluation of capacity building plan Relation with donors <u>Training courses:</u> Operating machine MV-4” Clearance and TS of areas contaminated with cluster munition remnants | <u>Training courses:</u> Operating machine Mini MineWolf Operating and servicing Digger D-250 machine Course for surveyors <u>Workshops:</u> Evaluation of Capacity building plan | <u>Workshops:</u> Evaluation of Capacity building plan Project management, project proposal and budgeting Strategic planning in mine action Advanced techniques in targeted technical survey |
| Increased efficiency of AFBiH Demining batallion through NPA direct operational support on their clearance task. | | Mechanical ground preparation: 414,600 m² Batteries:1,400 | Mechanical ground preparation: 245,500 m² Batteries: 3,000 | Mechanical ground preparation: 525,600 m² Batteries: 4,000 Mine tape. 1600 kg Veterinary support Food for 18 dogs Support to Dem.Battalion operation in Krupa | Mechanical ground preparation: 700,000 m² Support to Dem.Battalion in Srebrenica Region Support to Dem.Battalion in flooded areas | Mechanical ground preparation: 504,200 m² Support to Dem.Battalion in Srebrenica Region Food for 22 dogs Support of mechanical teams |
| | GPS device support | GPS device support | GPS device support | GPS device support | GPS device support | GPS device support |
| Handover of good quality equipment | Metal detectors: 15 | Metal detectors: 25 | | | | |
| Procurement new equipment and dogs | Mine detection dogs: 5 | Mine detection dogs: 2 | Mine detection dogs: 3 Metal detectors: 20 | IT equipment for non-technical survey 54 protective flak jackets, 300 visors | Mine detection dogs: 7 Metal detectors: 20+10 Locators:12 Trimmer:5; Motor saws:5 Digger D-250 mine clearance machine | |

Norwegian MFA, Swiss FDFA, Dutch MFA, German FFO and Digger Foundation

Evaluation capacity building activities of Demining battalion of Armed Forces of Bosnia and Herzegovina

1. Coordination Body has decided to establish of an evaluation team composed of representatives from Operational command, Demining battalion and Norwegian People's Aid (January 2015)
2. Selection of techniques and instruments for evaluation – evaluation matrix together with evaluation measures and indicators for the period 2011 -2014 (February-March 2015)
3. Data collection - evaluation team (March - June 2015)
4. Analysis of preliminary data and verification of analysis techniques applied (June 2015)
5. Presentation of the evaluation key findings and the lessons learned through cooperation Norwegian People's Aid and the Armed Forces of Bosnia and Herzegovina at the International Conference Explosive Europe in Belgrade (September 2015)
6. Evaluation report (December 2015).



Equipment, supplies and dogs given by Norwegian People's Aid to Demining Battalion on use in the period 2011-2014

- 90 metal detectors
 - 80 metal detectors type CEIA MIL-D1
 - 10 metal detectors type VMH-3 CS) including spare parts
- 12 magnetic locators type Schonstedt
- 17 mine detection dogs,
- dog food and veterinary support
- 54 protective vests
- 340 protective visors
- 8 motor saws
- 8 trimmers
- 7,400 batteries for metal detectors
- Small demining tools and marking materials
- Fuel for machines, vehicles, motor saws and trimmers

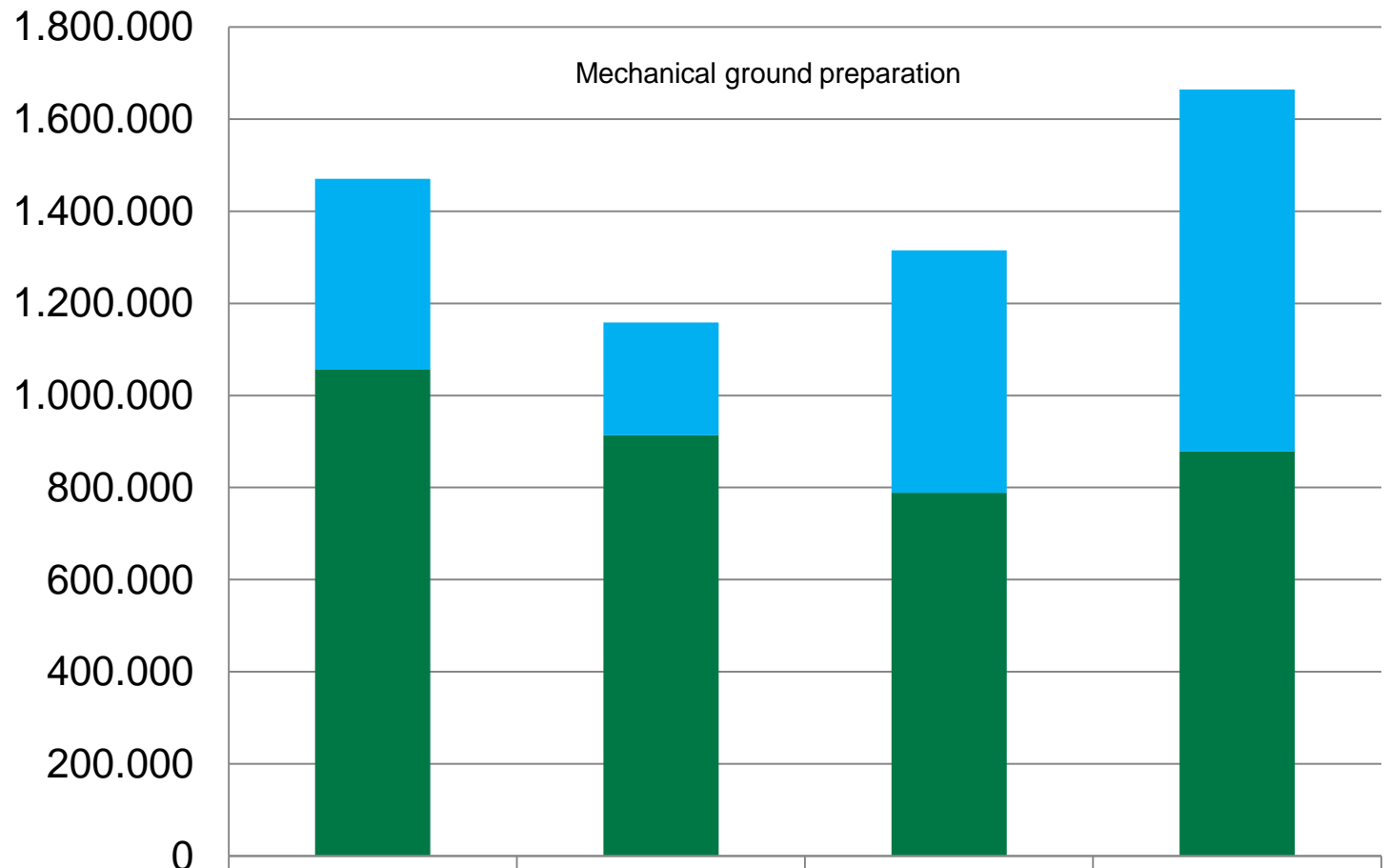


Trainings organized and performed by Norwegian People's Aid for members of Demining battalion in the period 2011-2014

- 1. Training for better planning and use of demining resources**
 - 6 workshop on increasing efficiency in application of working methods
 - 7 training courses and 2 re-training courses
 - 1 practical exercise for members of Demining battalion
- 2. Improved techniques for use of mine detection dogs. Demining Battalion successfully accredited for higher participation of dogs in clearance**
 - In 2009, the use of dogs was allowed up to 30% of the demining task
 - In 2011, the use of dogs was allowed up to 50% of the demining task
 - In 2015, the use of dogs was allowed up to 70% of the demining task
- 3. Training and equipping for activities of land release contaminated with cluster munition remnants (2013)**
- 4. In total, 63 members of Demining battalion upgraded their skills through trainings and courses organized by NPA and.**



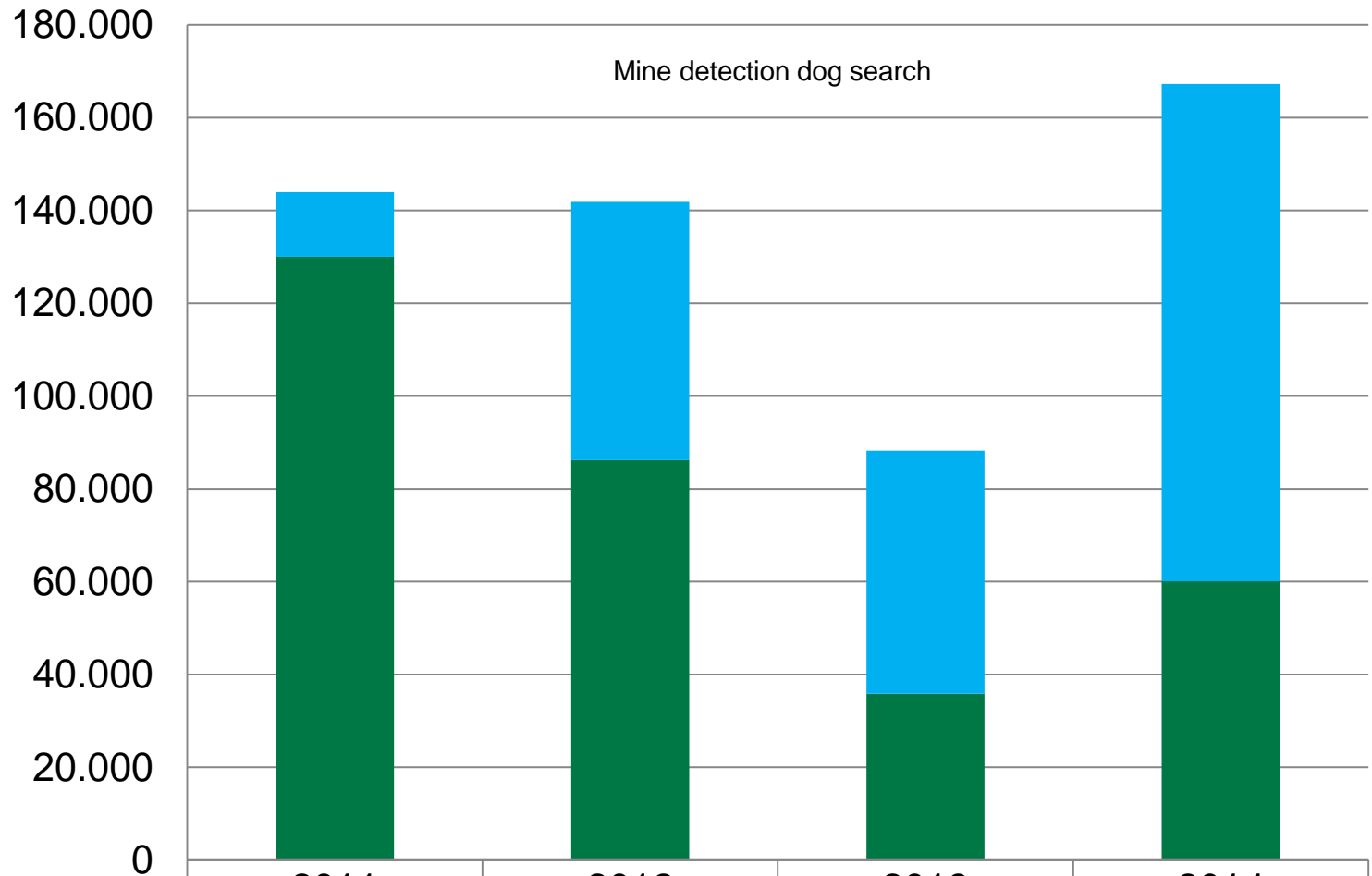
Growth of productivity of Demining Battalion per working methods



| | | | | |
|-------------------------------|-----------|---------|---------|---------|
| ■ NPA machines | 414.600 | 245.500 | 526.606 | 786.634 |
| ■ Demining battalion machines | 1.055.903 | 913.200 | 788.800 | 877.920 |



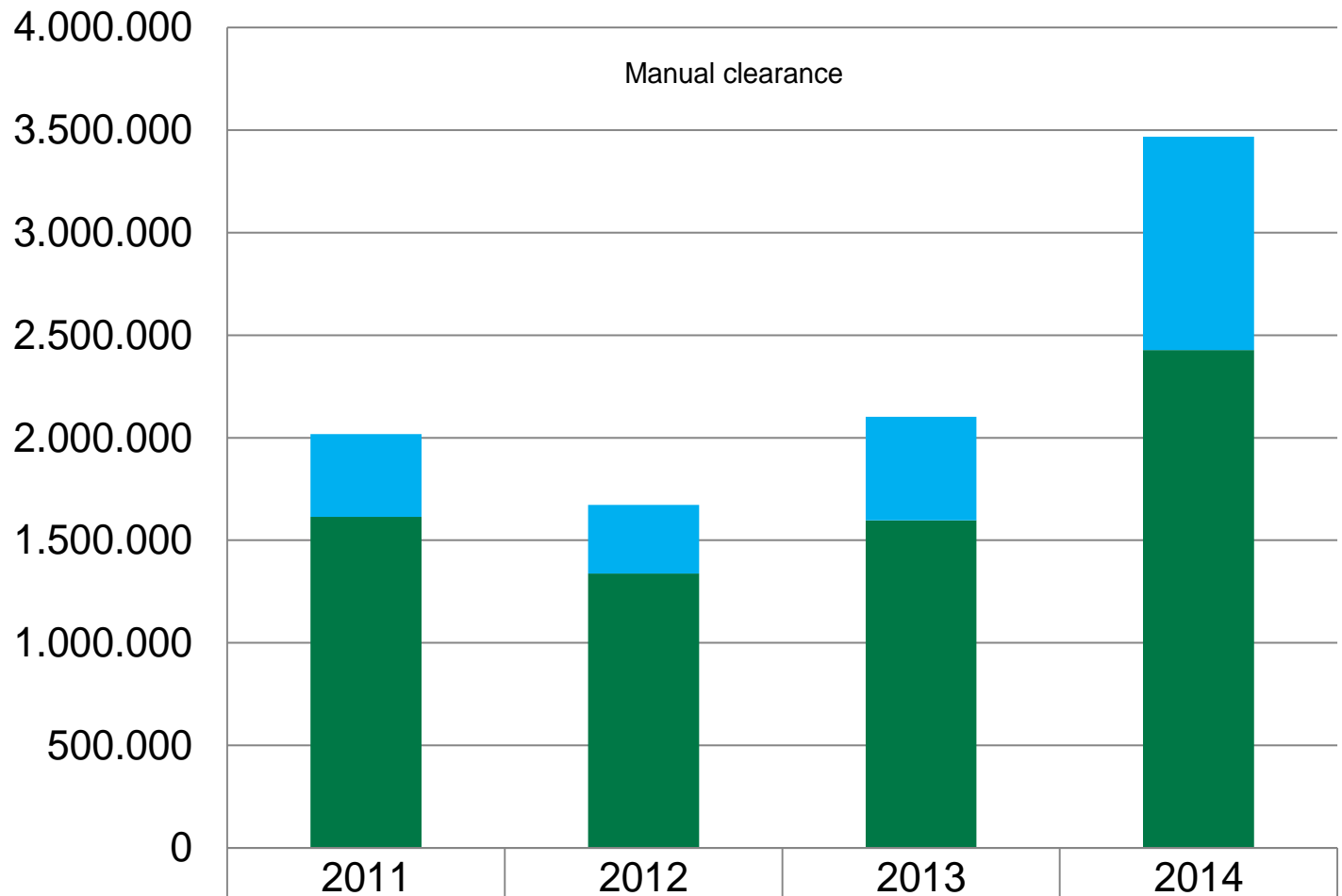
Growth of productivity of Demining Battalion per working methods



| | | | | |
|---------------------------|---------|--------|--------|---------|
| ■ MDDs provided by NPA | 13.942 | 55.593 | 52.352 | 107.130 |
| ■ Demining battalion MDDs | 130.012 | 86.217 | 35.867 | 60.103 |



Growth of productivity of Demining Battalion per working methods



| | | | | |
|----------------------------------|-----------|-----------|-----------|-----------|
| ■ Detectors provided by NPA | 403.517 | 334.522 | 504.452 | 1.040.289 |
| ■ Demining battalion's detectors | 1.614.068 | 1.338.088 | 1.597.435 | 2.427.341 |



Quality of land release by Demining battalion

A total of 896 mines and 434 ERW were found on Demining battalion technical survey and clearance tasks in the period 2011-2014.

| Year | Mines and ERW found | | |
|------------------|---------------------|--------------|---------------------------------|
| | Demining battalion | | Total in Bosnia and Herzegovina |
| 2011 | 180 | 2.4% | 7,551 |
| 2012 | 96 | 5.9% | 1,615 |
| 2013 | 379 | 13.8% | 2,741 |
| 2014 | 675 | 15.4% | 4,378 |
| 2011-2014 | 1,330 | 8.2% | 16,285 |

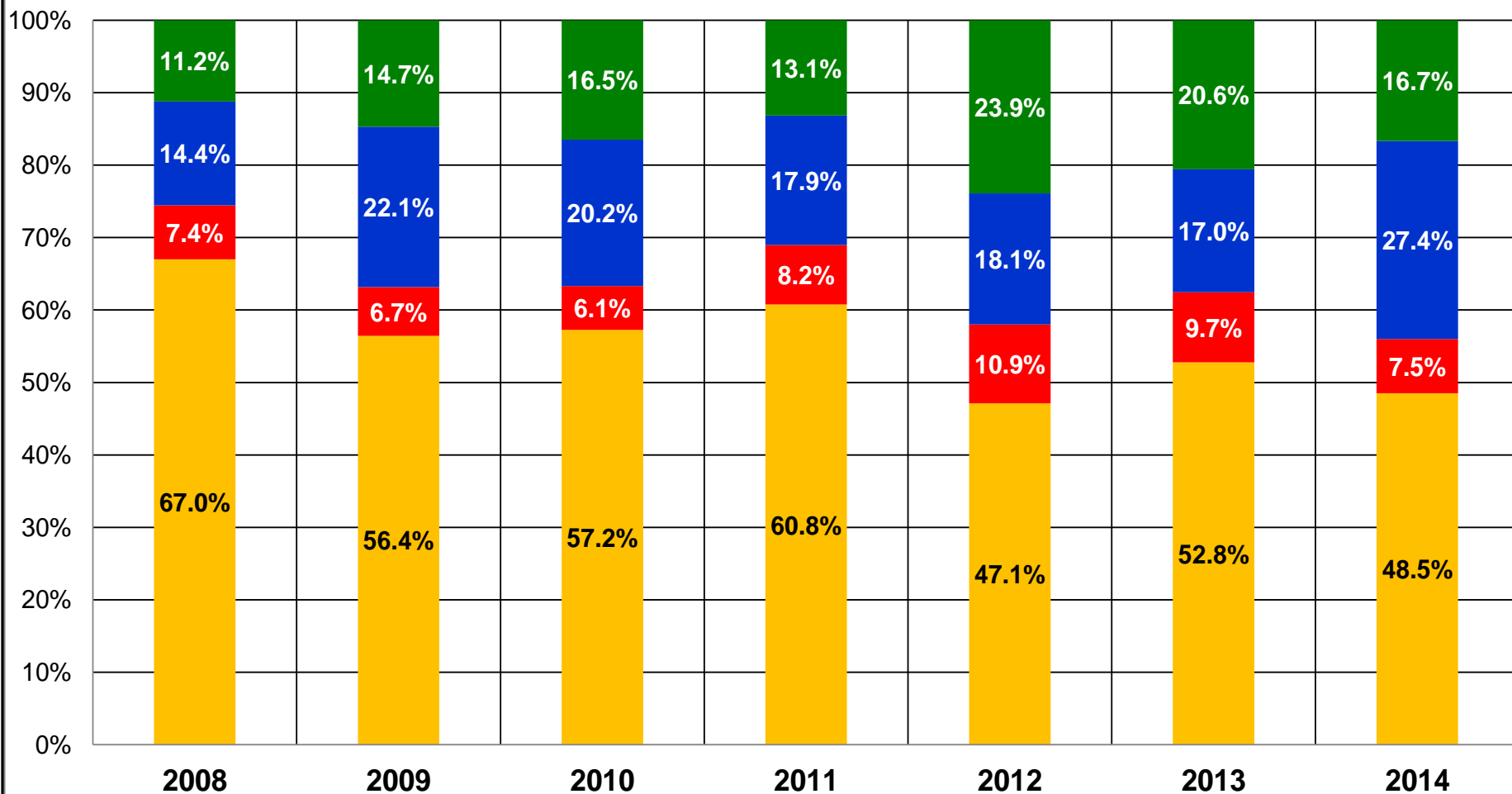
| Year | Average number of found mines on demining tasks per ha | |
|------|--|---------------------------------|
| | Demining battalion | Total in Bosnia and Herzegovina |
| 2011 | 8.55 | 7.04 |
| 2012 | 18.37 | 7.50 |
| 2013 | 31.26 | 9.52 |
| 2014 | 21.47 | 10.99 |







The comparison with other operators in B&H 2008 - 2014

Annual contribution of demining operators in Bosnia and Herzegovina

- NPA
- Demining batallion BHAF
- Civil Protections teams
- Other NGOs and commercial companies



-  NPA has provided 17 mine detection dogs and organized workshops and other trainings for members of the Demining Battalion which had positive impact on demining battalion productivity and efficiency.
-  Demining Battalion applied the procedures of work with dogs on technical survey and clearance tasks which are compatible with work of NPA. Demining Battalion needs a larger number of dogs, balanced with other demining resources
-  Demining battalion is stable and the biggest demining operator in Bosnia and Herzegovina. NPA has been able to compensate temporary reduction of staff and imbalance between the human resources, machines and dogs.
-  With available human and material resources, with adequate logistical support, Demining Battalion can achieve an annual productivity of 5 km² on technical survey and clearance tasks.



GLOBAL TRAINING CENTRE FOR MINE AND EXPLOSIVE DETECTION DOGS SARAJEVO



Humanitarian Disarmament Bosnia and Herzegovina
www.npa-bosnia.org; www.facebook.com/npa.bosnia

Global Training Centre
for Mine and Explosive Detection Dogs Sarajevo
www.npa-gtc.org; www.facebook.com/npa.gtc



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