REPORT ON THE RESULTS OF THE LESSONS LEARNED WORKSHOP ON THE URBAN SEARCH AND RESCUE

OPERATIONS

EARTHQUAKE OF APRIL 16, 2016



Photo 1 Working Group 8 – Workshop on Lessons Learned – Montecristi Date: July 14, 2016

Venue: Ciudad Alfaro Civic Centre, Montecristi, Manabí, Ecuador

JULY 14 AND 15, 2016

<u>Note</u>: The original report is in Spanish. This English version was translated by the INSARAG Secretariat/ FCSS, OCHA-Geneva.





ABOUT THIS REPORT

This document is the result of the collection of experiences of national and international Task Forces involved in the search and rescue operations following the 7.8 earthquake of April 16, 2016, which seriously affected the provinces of Manabí and Esmeraldas. Each of the teams that participated presented the lessons learned with this adverse event as well as recommendations to improve the first response to such disasters in a more organized and coordinated manner.





Contents

| INTRODUCTION | 4 |
|--|----|
| BACKGROUND | 4 |
| OBJECTIVES GENERAL OBJECTIVE SPECIFIC OBJECTIVES | 5 |
| METHODOLOGY | 6 |
| RESULTS | |
| COORDINATION | 7 |
| INFORMATION MANAGEMENT | 8 |
| EQUIPMENT | 9 |
| TRAINING | |
| TELECOMMUNICATIONS | 9 |
| RECOMMENDATIONS | |
| COORDINATION | |
| INFORMATION MANAGEMENT | |
| EQUIPMENT | |
| TRAINING | |
| TELECOMMUNICATIONS | |
| SUMMARY | 12 |
| ACKNOWLEDGEMENTS | 13 |
| ANNEXES | 14 |
| ANNEX 1 | 15 |
| ANNEX 2 | |





INTRODUCTION

This report compiles and evaluates the performance of national and international Urban Search and Rescue (USAR) teams during the search and rescue operations undertaken after the earthquake of April 16, 2016, in Ecuador.

The main purpose of this document is to help the Government of Ecuador, and specifically the Secretary of Risk Management, to strengthen its USAR system, protocols and preparedness and response procedures. It is also meant to be disseminated as lessons learned and recommendations within national and international USAR communities.

BACKGROUND

On April 16, 2016, at 18:58 local time, Ecuador was struck by an earthquake of a magnitude of 7.8 on the Richter scale with epicentre in the Pedernales Canton, which affected the provinces of Esmeraldas, Manabí, Guayas, Santa Elena, Los Ríos and Santo Domingo, among others.

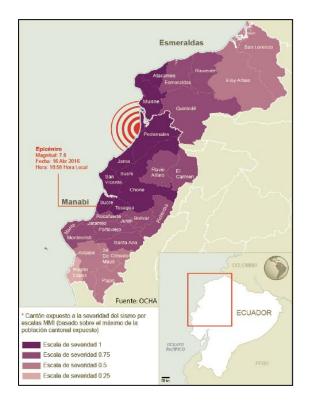


Figure 1: Map of severity and affected areas. Source: MIRA Report, May 8, 2016

The most affected provinces were Manabí and Esmeraldas, where local first response teams together with the international community providing emergency assistance had an





arduous task due to the great impact of the earthquake on the population, housing, and critical infrastructure, with temporary interruption of roads and basic services.

During the early hours of the initial intervention in the affected areas, specialized rescue teams as well as Fire Departments, Intervention and Rescue Groups from the National Police, the Rescue and Medical Emergency Unit of the Transit Commission of Ecuador, and Special Military Task Forces participated in search and rescue operations in collapsed structures.

The operations were supported by fifteen non-classified international USAR teams and two classified ones (UME - Military Emergency Unit and ERICAM - Emergency and Immediate Response of the Community of Madrid, who worked jointly together) that were however not mobilized according to their level of classification. In addition, a United Nations Disaster Assessment and Coordination (UNDAC) team provided support in the coordination of USAR response and international response actors, and in needs assessment.

However, despite the fact that 113 people were rescued alive¹, it is necessary to analyse the performance of national search and rescue teams as well as the experience with the international USAR response, which was mobilized at the request of the Government of Ecuador in order to support emergency response actions.

For this reason it is necessary to identify response capabilities and coordination mechanisms during the stages of activation, mobilization, operations and demobilization in order to improve the performance of the same in future events, taking into account that Ecuador is a country with high seismic risk.

OBJECTIVES

GENERAL OBJECTIVE

Collect and systematize lessons learned from the operations of national and international Urban Search and Rescue (USAR) Teams that worked in the affected areas after the earthquake in Ecuador.

SPECIFIC OBJECTIVES

- 1. Assess administrative and operational aspects of the search and rescue operations undertaken by the different teams.
- 2. Obtain a report compiling lessons learned to assist national and international urban search and rescue teams.
- 3. Consolidate the recommendations made by participants that allow reviewing procedures and methodologies for the coordination of national and international response of urban search and rescue teams.

¹ Source: Report of persons rescued alive at June 10, 2016. Secretariat of Risk Management, Ecuador.





METHODOLOGY

Institutional representatives of the Fire Brigades, the National Police, the Transit Commission of Ecuador, the Armed Forces of Ecuador and international USAR teams (Chile and Colombia) - sixty-seven participants in total (see Annex 1) - were divided into eight groups balancing experience, rank, institutional representation and gender. The three topics were assigned for analysis (see Annex 2):

- Topic 1: Coordination, activation and communication with rescue teams at national and international level.
- Topic 2: Resources and capabilities of urban search and rescue teams.
 - a. Standards for resources and capabilities of urban search and rescue teams.
 - b. Organization of resources and capacities at a provincial level.
- Topic 3: Intervention of urban search and rescue teams.
 - a. Marking system
 - b. Coordination with the Unified Command Post (UCP) and allocation of worksites.
 - c. Registration and transmission of information about in situ activities. INSARAG Formats.
 - d. Demobilization of USAR teams.
 - e. Post-mission reports.

The methodology process involved a presentation of the methodology in plenary, group work and the presentation of results in plenary, and a final consolidated summary. These inputs provide the main contents of this report.

The workshop was organized by the Secretariat of Risk Management, which invited representatives of national search and rescue teams (sixty five participants) as well as representatives of two international USAR teams to contribute to the analysis of the response. The INSARAG Secretariat of the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) provided support in the design and facilitation of the workshop as well as the systematization of the lessons identified and recommendations presented in this report.

Previously, a brainstorming workshop was held at the Secretariat of Risk Management with the participation of decision makers and staff involved at a strategic level in the response of April 16. The inputs of this meeting were considered during the main workshop in Montecristi and in the final analysis.





RESULTS

The results, contributions and inputs of the workshop were analysed and divided into lessons learned and recommendations. Both are contained in five main categories, which are: Coordination, Information Management, Equipment, Training and Telecommunications, as these were identified as the key issues during the earthquake.

LESSONS LEARNED

COORDINATION

- 1. Regardless of the extent of the disaster and the limitations in terms of protocols and procedures developed, coordination was conducted integrating first response institutions (Fire Department, Police, Transit Commission and Armed Forces) so that they could work at their best performance.
- 2. From 21:30 pm (April 16) to 02:00 am (April 17) the Secretariat of Risk Management alerted search and rescue teams in the country without knowing yet the magnitude of the disaster and the geographical area affected until the morning of April 17 when a flyover was conducted over the zone of impact.
- The need to revise and update some of the written protocols and procedures for activation and operations (strategic, tactical and operational) among entities involved in urban search and rescue tasks was identified, in order to avoid duplication of work and optimize resources.
- 4. There was high collaboration of affected communities in support of search and rescue teams.
- 5. Each Fire Brigade in Ecuador has a level of administrative, financial and operational autonomy (decentralized). Since these are not governed by a central Risk Management Act; since national regulations to respond to major emergencies and disasters are not updated; and since there is no specific structure within the Secretariat of Risk Management to lead and organize Fire Brigades nationwide; this resulted in difficulties in technical and operational coordination of actions in the field.
- 6. In disasters and major emergencies with interagency response there are conflicts and confusion concerning the limit of authority of each institution, hindering coordination and field operations.
- 7. While the USAR Coordination Cell (UCC) initially established by the USAR team of Colombia and then taken by the UNDAC team as part of the On-Site Operations Coordination Centre (OSOCC) helped to coordinate and support national and international USAR teams, the level of ignorance on the INSARAG and OSOCC Guides limited timely coordination between national and international urban search and rescue teams.
- 8. While the Fire Department of Quito established a Reception/Departure Centre (RDC) since the beginning of the emergency, they lacked resources and support to organize the mobilization and distribution of the teams. Additionally, the lack of knowledge on the functioning of the RDC by national authorities present at that time hindered the





registration of international USAR teams for the process of orientation, allocation and coordination.

- 9. International USAR teams classified by INSARAG did not respond according to their level of classification in terms of team components and number of members.
- 10. The absence of USAR representation at the coordination platforms of the Emergency Operations Centre (MTT/EOC) resulted in the ignorance of local entities in terms of emergency management and response capabilities (Urban Search and Rescue) nationwide, which caused deficiencies in the management of these resources.
- 11. An inventory and an updated national directory of urban search and rescue capacities and resources available to each institution would have facilitated better coordination and distribution of the same.
- 12. Faced with the need for clear protocols and procedures agreed between the Secretariat of Risk Management (SGR) and the Ministry of Foreign Affairs and Human Mobility on the request of international USAR teams, in some cases the request of international USAR teams did not respond to a real need. While the SGR specifically requested the support of international USAR teams, several government entities accepted USAR teams on their own initiative, without coordinating with the SGR, hampering the reception and coordination of such teams. The late arrival of non-classified international USAR teams, and without prior request, draw excessive attention and overloaded coordination systems.
- 13. The limited knowledge on the use of the Virtual OSOCC (https://vosocc.unocha.org) by national authorities and some of the international teams limited the identification and availability of international USAR teams on standby, which led to the acceptance and arrival of teams with limited operational capabilities and self-sufficiency. This ultimately resulted in disorganized work and overloaded logistics in the affected area.
- 14. There was a lack of adequate early assessment of collapsed structures and the subsequent segmentation of the impacted zone that would have allowed a more effective distribution and use of USAR resources.
- 15. In some places, there were reports of the use of heavy machinery (backhoes) without proper technical coordination with USAR teams.

INFORMATION MANAGEMENT

- 16. There were delays in the early collection of information on the magnitude of the earthquake's impact because of the disruption of telecommunications services and the absence of a standardized method for collecting it. This resulted in a lack of knowledge on the situation and the extent of the damage by national urban search and rescue teams until 12 hours after the earthquake, generating the self-activation of some teams without appropriate coordination.
- 17. Although the OSOCC USAR Coordination Cell facilitated the coordination and information management of USAR operations, there were some difficulties with information management in work sectors and sites resulting in the lack of information and its subsequent consolidation. Because it wasn't periodically reported, there was no updated information on the rescue of people alive and recovering of bodies at the worksites. Nor was there a centralized system of physical or digital file or database.





- 18. The impediments in the dissemination of existing information on the national and international urban search and rescue (USAR) teams and their respective worksites hampered the coordination and optimization of resources.
- 19. Various marking methodologies were identified, some of them unsystematic, which sometimes confused national and international search and rescue teams because they were difficult to interpret. Some teams did not use any marking method, resulting in the duplication of work.
- 20. The end of mission reports that international teams must submit, according to the INSARAG Guidelines, in some cases have not been delivered yet, making it difficult for the Secretariat of Risk Management and the INSARAG Secretariat to systematize information on USAR operations. Also, there are still some national urban search and rescue teams that have not submitted their report to the Secretariat of Risk Management, despite the request made by that ministry.

EQUIPMENT

21. The limited national inventory of equipment and materials suitable for search and rescue caused an unequal response and intervention, caused by limited financial resources and its collection system.

TRAINING

- 22. In the absence of an accreditation process of search and rescue teams and unified training in this subject at national level, there were operational conflicts in worksites that did not allow an efficient and effective working methodology and coordination. Training in urban search and rescue developed in the country so far responds to individual initiatives and external providers, lacking compliance with national and international regulations and standards.
- 23. There are opportunities for improvement in terms of training decision makers at strategic political and operational level primarily in the area of coordination. This was identified particularly where the operation of the EOC did not have a complete institutional representation of all those response actors who had been activated.
- 24. There were difficulties in integrating telecommunications processes, resulting in communication and coordination gaps between urban search and rescue teams and in emergency operations centres (MTT/EOC).

TELECOMMUNICATIONS

25. The limitation in equipment, rules, procedures and protocols for the integration and redundancy of telecommunications systems had a negative effect on the coordination of search and rescue operations in the field.





RECOMMENDATIONS

COORDINATION

- 1. Design protocols and procedures for activation, mobilization, coordination, operations and demobilization of national and international search and rescue teams at a strategic, tactical and operational level.
- 2. Establish a more formal and strengthened level of first response and community response.
- 3. Develop a National Fire Directorate within the structure of the Secretariat of Risk Management to group the Fire Brigades under regulations and a financial and administrative development system to strengthen training, organization and planning mechanisms that contemplates the development of the USAR system in the country.
- 4. Adopt a national standardization of urban search and rescue teams based on the INSARAG Guidelines, adapting them to the country context, and design an accreditation process of national USAR teams in order to verify compliance with standards and commit teams into a coordinated effort when needed.
- 5. Broadly disseminate the contents of the INSARAG and OSOCC Guidelines in the National Decentralized Risk Management System and adopt them in practical exercises, simulations and drills.
- 6. Within the protocols and procedures, clearly define the roles, competencies and responsibilities of the institutions that are part of the National Decentralized Risk Management System, stating those that lead and those that play a supporting role in the urban search and rescue operations.
- 7. In the case a request for international USAR teams is made, national authorities are advised to establish an initial RDC and seek the support of international teams as soon as they arrive to the country. It is expected that international USAR teams provide immediate support once they arrived in the country at the RDC, and if necessary, the UCC and the provisional OSOCC in accordance with the provisions of the INSARAG Guidelines.
- 8. Encourage classified international USAR teams (medium or heavy) to strictly comply with the OSOCC and INSARAG guidelines during the phases of mobilization and demobilization, and to mobilize according to their classification.
- 9. Ensure that there is representation of national search and rescue teams in coordination platforms (MTT/EOC) at all levels of government to liaise between decision makers at strategic level and USAR teams on the field.
- 10. Develop, update and implement an inventory and directory of capacities and resources of institutions supporting and responsible for search and rescue operations. In the medium and long term, this process should be linked with the national accreditation process of urban search and rescue teams (see item 4).
- 11. Have a more efficient and effective process of preparation and participation to enable coordination and empowerment by first response actors in emergency assistance.
- 12. Coordinate the request for international USAR assistance through the proper channels and under the protocols and procedures at the Ministry of Foreign Affairs and Human





Mobility and in coordination with the Secretariat of Risk Management, implementing the recommendations of the INSARAG guidelines.

- 13. Raise awareness of the advantage and train on the use of the Virtual OSOCC among national authorities as a platform for information about and coordination of the international response.
- 14. Develop and adapt a system for rapid and early assessment of collapsed structures in order to implement a zoning system (ASR1 according to the INSARAG methodology) by responsible national authorities in order not to delay the allocation of urban search and rescue teams (national and international) upon their arrival to the affected area.
- 15. Implement a procedure for the use of heavy machinery operating jointly and under the direction of the urban search and rescue teams to safeguard the lives of potential trapped victims.

INFORMATION MANAGEMENT

- 16. It is recommended to have a standardized information system on the needs of search and rescue teams in the affected area, in order to efficiently distribute urban search and rescue teams in transit or in standby so they can develop a plan of arrival and first interventions.
- 17. It is recommended that the country develops and adopts a process of information management, including standardized formats, to facilitate the coordination of USAR response within which national teams must report regularly to the national organization responsible for the coordination of search and rescue operations in order to have an updated overview and map of the situation and be able to do follow-up. It is recommended to use the INSARAG methodology and formats.
- 18. International teams are advised to strictly comply with regular reporting from worksites according to the INSARAG Guidelines, so that at all times there is an updated overview of the situation at the OSOCC UCC to facilitate monitoring of international USAR operations supporting the national coordination structure of urban search and rescue operations.
- 19. National and international search and rescue teams are advised to be familiarized and use the marking system indicated in the INSARAG Guidelines.
- 20. National and international teams shall submit end of mission reports according to the times and recommendations of the INSARAG Guidelines.

EQUIPMENT

21. It is recommended that national USAR teams invest in an inventory of USAR equipment and materials according to a national USAR response plan.

TRAINING

22. It is recommended to develop and implement a national accreditation system for search and rescue teams in order to unify organization, administration, management, training, equipment, mobilization, operations, coordination and demobilization criteria under a competent authority and following Annex C of Manual A of Volume II of the INSARAG Guidelines.





- 23. Within the curriculum of emergency response and training of Task Force personnel, it is recommended to include training on coordination and decision-making for political-strategic, operational and tactical personnel, including knowledge of the INSARAG and OSOCC Guidelines.
- 24. It is recommended to optimize the use of existing training facilities for urban search and rescue teams, allowing access nationwide.
- 25. It is advised to include decision-making, communication and information management in the curriculum of emergency response of first response institutions, particularly of Emergency Operations Centres and urban search and rescue teams.

TELECOMMUNICATIONS

26. It is recommended to conduct a diagnosis of inter-agency telecommunications capabilities for emergencies and/or disasters.

SUMMARY

It is important to underline the dedication, devotion and tireless work of national and international search and rescue teams during the operations after the earthquake of April 16, 2016. In many cases, these operations were carried out without the adequate equipment and working long hours in difficult and dangerous conditions. Some of the national teams worked in full knowledge that their assets and families have been affected, and this deserves nothing less than recognition and admiration.

The way in which all participants of the workshop were open to discussions in a transparent and constructive manner with the aim of making progress in building capacities for preparedness and response deserves special mention.

The inputs and recommendations included in this report reflect the experiences of emergency responders on the days immediately after the earthquake.

These recommendations are presented with the aim of improving the procedures and coordination of search and rescue operations, and therewith strengthen the emergency response in future; the Secretariat of Risk Management has the mandate to generate all the protocols and procedures, as well as the national USAR team accreditation process, and this analysis will serve as an important instrument in strengthening this process.

In this context, the Operations Department [of the Secretariat of Risk Management] suggests this document to be disseminated amongst the national and international USAR community with the intention of sharing the lessons learnt in this emergency.





ACKNOWLEDGEMENTS

The Secretariat of Risk Management would like to extend its deepest gratitude to the following entities and individuals for their contribution and inputs to this workshop:

- 1. OCHA Office for the Coordination of Humanitarian Affairs
- 2. INSARAG Americas Regional Group and its Regional Chairmanship Group
- 3. Mr. Juan A. Campos, Consultant, INSARAG Secretariat, OCHA, Geneva.
- 4. Mr. Joseph A. Bishop, Consultant, INSARAG Secretariat, OCHA, Geneva.
- 5. Mr. Sebastián Mocarquer, Team Leader USAR, Bomberos de Chile
- 6. Ms. Silvia Ballén, National Unit for Disaster Risk Management, Colombia.
- 7. Mr. José Antonio Perdomo, Unidad Nacional para la Gestión del Riesgo de Desastres, Colombia.
- 8. Mr. César Navas, Coordinating Minister for Security
- 9. Mr. Xavier Santos, Governor of the Manabí Province
- 10. Representatives of the Fire Department, National Police, Transit Commission and Armed Forces of Ecuador.
- 11. Representatives of the Autonomous Governments in the province of Manabí.
- 12. Ms. Tatiana Idrovo, President of the Ciudad Alfaro Civic Centre
- 13. Support staff at the Ciudad Alfaro Conference Centre, Montecristi, Ecuador.
- 14. Representatives of the Ministry of Foreign Affairs and Human Mobility of Ecuador Coordination department 4
- 15. Support staff from the Secretariat of Risk Management





ANNEXES

Annex 1 List of Participants

Annex 2 Workshop's Program





ANNEX 1

| Ne | DROVING | | |
|----------|------------|--------------------------|---|
| No. 1 | PROVINCE | FIRE BRIGADES USAR Chile | NAME OF OFFICER Sr. Sebastián Morcarquer |
| 2 | | SAR Colombia | Sr. Juan Perdomo |
| 3 | Azuay | Girón | Bombero (B) Luis Alberto Panamá Flores |
| 4 | Azuay | Cuenca | Sub. Oficial Jackson Fernández |
| 5 | Azuay | Cuenca | Sub. Thte (B) Jorge Guerrón Reinoso |
| 6 | Cañar | Azogues | Cabo Cristian Ávila Peralta |
| 7 | Chimborazo | Riobamba | The. (B) Mario Samaniego Rosas |
| 8 | El Oro | Machala | Crnl. (B). Ab. José Vicente Barreto Romero |
| 9 | El Oro | Machala | Cap. (B). Bernardo Xavier Serrano Coello |
| 10 | Esmeraldas | Esmeraldas | Sargento (B) Gilmar Palomini Colorado |
| 11 | Guayas | Guayaquil | Thte. (B) César León |
| 12 | Guayas | Guayaquil | Sub. Tnte. Washington Velasco. |
| 13 | Guayas | Juján | Capitan Ronald Mariscal Silva |
| 14 | Guayas | Durán | Cap. Rodolfo Edelink Vanegas Aspiazu |
| 15 | Guayas | Guayaquil | Carlos Julio La Mota Dávila |
| 16 | Imbabura | Cotacachi | Sub Thte.(B) Xavier Orlando García Narváez |
| 17 | Imbabura | Otavalo | The (B) Carlos Roberto López Moreta |
| 18 | Imbabura | Ibarra | The (B) Santiago David Coba Coral |
| 19 | Imbabura | Ibarra | Subt. (B) Vásquez Castro Pablo Esteban |
| 20 | Loja | Loja | Sub Oficial Guillermo Antonio Landi Herrera |
| 21 | Manabí | Pajan | Teniente Coronel Abg. Carlos Moran Vera |
| 22 | Manabí | Santa Ana | Sub.Tnte.(B) Santiago Moran Mendoza |
| 23 | Manabí | Flavio Alfaro | Teniente (B) Alcidiades Vidal Arteaga Mendoza |
| 24 | Manabí | Sucre/Bahía de Caráquez | Tnte. Crnel. Ing. José Ricardo Ordoñez Uscocovich |
| 25 | Manabí | 24 de Mayo | Capitán (B) Geovanny Sornoza Guerrero |
| 26 | Manabí | Bolívar -Calceta | Tnte. Crnel. (B) Giorge Mariano Cevallos |
| 27 | Manabí | Jaramijo | Tnte. Crnel. (B) Washington Mero Castro |
| 28 | Manabí | Junín | Bombero Oscar Santana Guerrero |
| 29 | Manabí | Manta | Sub-Oficial (B) Fabricio Acosta Trejo |
| 30 | Manabí | Olmedo | Bombero (B) Ulbio Omar Macías Aguayo |
| 31 | Manabí | Portoviejo | Mayor William Mera Zambrano |
| 32 | Manabí | Chone | Cap. David Gonzalo Rodríguez Alcívar |
| 33 | Manabí | San Vicente | Mayor (B) Jorge Luis Cagua Zambrano |
| 34 | Manabí | Montecristi | Cap. Juan Carlos León Vera |
| 35 | Manabí | Puerto López | Cabo David Rogelio Mero Sánchez |
| 36 | Manabí | Jama | María Dolores Ramírez Ceballos |
| 37 | Manabí | Pichincha | Bombero Jessenia Cecibel Moreira Barsuto |
| 38 | Manabí | Tosagua | Sub. Tnte. (B) Juan Manuel Velásquez |





| Nie | PROVINCE | | |
|-----|------------------|------------------|--|
| No. | | FIRE BRIGADES | |
| 39 | Manabí | Pedernales | Tcrnel.(B) Milton Canchingre Arteaga |
| 40 | Morona Santiago | Macas | Crnel. (B) Carlos Villa Rodríguez |
| 41 | Pichincha | Pedro Moncayo | Cabo (B) Juan Diego Puga Romero |
| 42 | Pichincha | Machachi | Capitán (B) José Javier Velásquez Herrera |
| 43 | Pichincha | Quito | Cap. Henry Silva |
| 44 | Pichincha | Quito | Tnte. Pablo Andino (pablofireandino@gmail.com) |
| 45 | Tungurahua | Ambato | Sbtnt. Edgar Fabián Sánchez Solis |
| 46 | CO2 | CO2 | Crnl. De E.M. Edwin Ocampo Vivanco |
| 47 | CO4 | CO4 | Tnte. Crnel. Fabricio Napoleón Varela Guerrón |
| 48 | Guayaquil | CTE | Capt. Carlos Cevallos Guingla. |
| 49 | Guayaquil | CTE | Tnte. David Cevallos Guingla. |
| 50 | Policía Nacional | GOE - Esmeraldas | Mayor Santiago Gavilánez Pérez |
| 51 | Policía Nacional | GOE- Quito | Capitán Jimmy Fabricio Arciniega Espinoza |
| 52 | Manabí | Flavio Alfaro | Tnte. Crnel. (B) Eurie Vera Vélez |
| 53 | Policía Nacional | Zona 1 | Cabo Primero Jaxon Porozo Mosquera |
| 54 | Policía Nacional | Zona 9 | Franciso José Armijos |
| 55 | Manabí | Jaramijo | Cabo Luis Burgos Mantuano |
| 56 | Azuay | Cuenca | Sub Ofic. Marcelo Abril Beltrán |
| 57 | Manabí | Tosagua | Sub. Tnte. (B) Ernesto Alberto Flores Vásquez |
| 58 | Tungurahua | Ambato | Cabo César Marcelo Páliz Naranjo |
| 59 | El Oro | Portovelo | Tnte. Crnel. Eduardo Ramiro Camacho Gálvez |
| 60 | Policía Nacional | GIR | Cap. Christian Suárez Garzón |
| 61 | Manabí | Cancillería | Lcda. Diana Elizabeth Macías López |
| 62 | Manabí | Rocafuerte | Sub.Tnte. (B) Klever Augusto Palacios Chunga |
| 63 | Morona Santiago | Macas | Tnte. Juan Sosa Rojas |
| 64 | Manabí | Calceta | Tnte. (B)Iván Sabando Álava |
| 65 | Zona 4 | Cancilleria | Lcda. Virginia Vargas Solórzano |
| 66 | Chimborazo | Riobamba | Cabo. Raul Samaniego |
| 67 | Manabí | Jipijapa | Mayor Jimmy Soto Santana |





ANNEX 2

WORKSHOP ON LESSONS LEARNED - AGENDA

ASSESSMENT OF SEARCH AND RESCUE OPERATIONS A16 EARTHQUAKE

Venue: Ciudad Alfaro Civic Centre

<u>July 14, 2016</u>

| Time | Activity |
|---------------------|--|
| 08:30 am – 09:00 am | Registration of Participants |
| 09:00 am – 10:00 am | Opening of the event. Welcome Speech |
| | Opening and welcome by authorities |
| 10:00 am – 10:30 am | Coffee Break |
| 10:30 am – 11:10 am | National Decentralized Risk Management System (SNDGR) and Accreditation Process for National Task ForcesBrief description of the SNDGR's operation in Ecuador. Roles and responsibilities according to the manual of the Risk Management Committee. Regulatory basis for the operation of the Secretariat of Risk Management and emergency response actors. Additionally, there will be a summary of the work of the Secretariat of Risk Management on the National Accreditation Process for National Task Forces.Objective: To briefly explain the system, rules, roles and responsibilities regarding preparedness and response actions during an adverse event; and additionally inform participants about what the Secretariat of Risk Management is working on regarding the process of National Accreditation and the stage or phase |
| | of Risk Management is working on regarding the process of National Accreditation and the stage or phase in which the process currently is. |





| 11:10 am – 12:00 pm | Situation Report of the 16A Earthquake, Manabí - Esmeraldas |
|---------------------|---|
| | <u>Objective:</u> Explain in general terms what happened on April 16, 2016; magnitude, time, affected areas, damage and needs, national response, international appeal, coordination, among other issues, providing a context of the emergency for the workshop, highlighting the importance of the same. |
| 12:00 pm – 13:00 pm | INSARAG Basic Information |
| | Brief overview of INSARAG, mandate, structure, methodology, INSARAG Guidelines 2015, strengthening of national capacities, USAR operations, among others. <u>Objective</u> : To familiarize participants with the INSARAG methodology and operation. What are INSARAG and USAR? What is the structure of an USAR team? What types of teams exist and what are their main roles and responsibilities? What are the levels of evaluation? How do the national and international systems work together? What are the channels and mechanisms for coordination and activation? What does the INSARAG marking mean? What is the OSOCC and how does it work? |
| 13:00 pm – 14:00 pm | Lunch |
| 14:00 pm – 14:30 pm | Creation of Thematic Groups |
| | Explanation of the dynamics of the Thematic Groups during the workshop and on the formation of the 5 working groups. <u>Objective:</u> Explain to participants how Thematic Groups will be formed, how they will work, how much time they will have for each of the activities, and the final products expected from each of them. A speaker and a note taker will be designated within each of these groups. |
| 14:30 pm – 15:30 pm | Joint work with Thematic Groups Development of Point 1: Coordination, activation and communication with rescue teams at national and international level. <u>Objective:</u> To collect the experiences of Task Forces representatives regarding Point 1; each group will identify the key points of the identified subtopics according to the matrix provided in the workshop. |
| 15:30 pm – 16:00 pm | Coffee Break |
| 16:00 pm – 17:30 pm | Continuation of the work of the Thematic Groups – Development of Point 1 |
| 17:30 pm – 17:40 pm | End of day |





<u>July 15, 2016</u>

| 08:00 am - 10:00 am | Joint work with Thematic Groups | |
|---------------------|---|--|
| | Development of Point 2: Resources and capabilities of search and rescue teams | |
| | 2. Resources and capabilities of search and rescue teams | |
| | a. Standards for resources and capabilities of Task Forces (L y M) | |
| | Drganization of resources and capacities at the provincial level in case Mixed Task Forces have been formed. | |
| | <u>Objective:</u> Collect the experiences of representatives of Task Forces regarding Point 2; each group will identify the key points of the subtopics identified according to the matrix provided in the workshop. | |
| 10:00 am – 10:30 am | Coffee Break | |
| 10:30 am – 13:00 pm | Joint work with Thematic Groups | |
| | Development of Point 3: Intervention of search and rescue teams | |
| | 3. Intervention of the search and rescue teams | |
| | a. Marking system | |
| | b. Coordination with the UCP and allocation of work sites | |
| | Registration and transmission of information about in situ activities – INSARAG Formats Demobilization of teams | |
| | e. Post-Mission reports with results to the governing body | |
| | <u>Objective</u> : Collect the experiences of representatives of Task Forces regarding Point 3; each group will identify the key points of the subtopics identified according to the matrix provided in the workshop. | |





| 13:00 pm – 14:00 pm | Lunch |
|---------------------|---|
| 14:00 pm – 15:30 pm | Presentation of results on the three main topics of the workshop |
| | <u>Objective</u> : After the groups have worked on the three main topics, they must make a Power Point presentation in plenary. Each group will have 15 minutes to present the results of their work. |
| 15:30 pm – 15:45 pm | Coffee Break |
| 15:45 pm – 16:10 pm | Presentation of the results of the working groups |
| | <u>Objective</u> : Instructors will present in plenary a synthesis of the results obtained by the groups, so that all participants know the different findings identified by each of them. |
| 16:10 pm – 16:30 pm | Workshop closure and hand-out of certificates |