

Summary of the Feedback

by 11th Feb.2022

Part1 : The comments of The Draft UNESCO

Guidelines on USAR at Heritage Site.

1. From **Ciro BOLOGNESE**

In my opinion, the guide "Urban Search and Rescue at Heritage Sites" is a good synthesis of "good practices" explained in the reference documents and can be a good support for training or to raise awareness of the topic, especially to those countries that do not have a specific response capacity in the context of seismic emergencies. From the point of view of the USAR teams, I think that some concepts are already established in the INSARAG guidelines and, rather, the document could give the opportunity to explain them better.

① **Page 8 - "Heritage structures and their construction may differ from the other buildings in the affected area.**

"Therefore, these structures may require a specific approach in terms of USAR skills. Heritage sites or structures may contain valuable artefacts or building parts that may cause security problems and additional measures may be required during search and rescue operations to ensure their safeguard. In some cases, heritage sites may include sacred structures, objects or specific areas for carrying out rituals that may require USAR Teams to be culturally aware and sensitive to the beliefs of the affected community."

These aspects are already considered by the INSARAG guidelines which require USAR teams to gather and analyze information before departure, as well to carry out an informative briefing.

The following contents of the guide (page 10) “Preparatory Actions for USAR Teams This section outlines the preparatory actions that international and national USAR Teams can undertake to enhance their readiness to conduct search and rescue operations at heritage sites and coordinate through LEMA with the deployed CFA (if any) and the relevant heritage agencies to ensure heritage safeguard...” could be integrated in INSARAG Guidelines.

② Page 11 - Preparatory Actions for Cultural Heritage Authorities

I suggest integrating the following actions into this section:

- ✓ define the procedures for the recovery, preparation and transport of cultural heritage
- ✓ identify safe sites for the storage of cultural heritage found during the operations and define who will be responsible for handling and surveillance
- ✓ define the procedures for the deployment of personnel and the organization of a support structure for emergency management.

③ Page 13 - “If possible, the deploying USAR Team should include at least one expert member on built heritage”

Evaluate if this skill can be integrated among those of the structural engineer

④ Page 14

“In collaboration with LEMA, prepare a roster of CFA teams and cultural heritage professionals who could be readily deployed during and immediately after search and rescue”

I think that this aspect concerns the preparedness phase

⑤ Page 17

“Cultural heritage authorities in close collaboration with LEMA, should be ready to deploy CFA to provide cultural heritage first aid once, the search and rescue is over”

I think that this aspect concerns the preparedness phase

⑥ Page 18

“The USAR Teams deployed at heritage sites should share all heritage related documentation including worksite triage forms, reports and photos with LEMA. Upon request of the host country (conveyed 1 the home country deployment support team gather and analyse information in order to conduct a pre-deployment briefing to USAR team members on: Current situation including structural characteristics, Culture, ..., Safety and security, including potential hazards, ... Special or unusual considerations - ref.9.5 IEC_R checklist through LEMA), expert USAR members on built heritage and heritage sites may give support for emergency stabilisation of structures or help provide temporary cover for exposed heritage structures. See Annex 4.

Creating Temporary Cover for Exposed Cultural Heritage and First Aid to Cultural Heritage in Times of Crisis Handbook and Toolkit. If requested, USAR Teams may assist CFA in salvaging heritage fragments and objects and relocating them on the worksite or to another safer location. For detailed information see Annex 5.

Guide to Handling Movable Cultural Heritage and Annex 6. Movement and Tracking Form for Handover of Objects Relocated to Secure Storage. For more detailed information, visit First Aid to Cultural Heritage in Times of Crisis Handbook and Tool Kit, Annex II.” and Page 21 “Beyond the rubble”

...

I think that these are the main aspects to be explained in the context of the flexible response. The guide is an awareness on the topic but I believe that a specific annex of the INSARAG guidelines is required to explain the contents.

⑦ Page 25

“Proposed Method for Marking Cultural Heritage Sites based on the INSARAG Marking System”. The activities are listed on page 21 of the guide and should be more detailed in an annex to the INSARAG guideline.

I would add to the list the possibility of controlled disassembly, also applicable in peacetime (for example before a conflict) Could we think of an asterisk or something similar?

2. From John Dumsick, P.E. (VA), FAPT, APT-RP, FMP

① **Overall excellent report for a very important need in the USAR cared.**

② **Page 4, Abbreviations.**

Recommend engaging ICOMOS International Scientific Committee on the Analysis and Restoration of Structures of Architectural Heritage, commonly known as ISCARSAH. It is an international forum of architects, engineers, scientists and educators involved in the care of building heritage. It authored the ICOMOS Charter for the Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage, known as the ISCARSAH Principles. <https://iscarsah.org/>

③ **Page 6, Section 1, first paragraph.**

“with standard procedures to be followed”. Question use of term ‘standard’. The document defines itself as a guide. Need to clarify if this proposing to be a standard procedures or guidelines.

④ **Page 7, Section 2.1, first paragraph.**

Excellent description. It may be helpful to provide simple examples. Remember who are the audience, not cultural heritage professionals.

⑤ **Page 7, Section 2.1, last paragraph.**

Believe we need to explain how USAR and cultural heritage are relatable, i.e. “cultural diplomacy, helping fellow man”, etc. Similarly, why is cultural heritage important and what happens

when cultural heritage is lost, stolen, etc. (instability in local environment, diplomatic issues)

⑥ **Page 8, Section 2.2, first sentence.**

Link to INSARAG 2020 Guidelines did not work for me.

⑦ **Page 8, Section 2.2, first bullet.**

As per comment #1 this is where ICOMOS ISCARSAH could assist, i.e. known building stock and their behavior in natural and man-made disasters. Also the Earthquake Engineering Research Institute (EERI) has a world housing index which identifies construction materials and methods in several earthquake prone regions and countries with common modes of distress and methods to improve their seismic resilience. <http://db.world-housing.net/>

⑧ **Page 8, Section 2.3.**

Could not find reference for UNESCO Rapid Response Mechanism for Culture in Emergencies to review.

⑨ **Page 8, Section 2.4.**

The ICRROM First Aid class is well known and highly regarded. Recommend providing link for reader.

⑩ **Section 2 (General).**

Recommend possibly exploring adding an ICS chart of where proposed cultural heritage entities are to engage or where cultural heritage coordinators on the individual team are located. Such as the maybe the CH team member is the structural specialist or a new position.

⑪ **Page 10, Section 3.1, First Paragraph.**

For preparedness, believe host government/LEMA needs should take lead. If international USAR teams deploy, it is likely they will need briefing documents to review prior to and or during travel.

First 72 hours are imperative for human life recovery. Possibly engage search team members for inclusion of data into GIS overlay maps prepared for USAR.

⑫ Page 13, Section 3.2.1., first bullet.

Is this person a new member required for a team or an ancillary role for an existing member? Who do they report to? What are the recommended qualifications for teams to incorporate?

⑬ Page 15, Section 3.3.1, second bullet.

Similar to comment 11.

⑭ Page 23, Annex 1.

First and second bullet, see comment #6. Maybe we outline where to find information.

⑮ Page 23, Annex 1. Second bullet.

Need to understand time of event versus cultural activities at heritage sites. Need to identify locations of high potential impact to life during rescue operations. Would be important to know, such as date/time for religious activities, museum tours, etc.

⑯ Page 23, Annex 1. Bullet 9

Define RDC if not in Glossary.

⑰ Page 24, Annex 1, Bullets 3-5

currently USA FEMA teams use Survey123 for logging information where photos and narrative descriptions are recorded. Possibly explore integration of data recording apps into team recon efforts. Currently USAR teams (at least USA FEMA) have a tremendous number of forms to fill out. Need to allow data entry to be as quick and painless as possible, especially where data transmission is a premium.

3. From John.Cawcutt

Please note the document is easy to understand and well structured so my points are relatively minor. Additionally the previous feedback has covered a number of my questions.

① Page 8, Section 2.3 (As per JD's feedback)

it would be useful to have a better understanding of the function and role of the UNESCO Rapid Response Mechanism for Culture in Emergencies. Are they operational people (engineers etc) or do they work at a higher level. Interested in how their 'mechanism' works within our system.

② Page 10, 3.1. Preparedness

Agree with JD feedback

③ Various

Regarding the recommendation for teams to include an 'expert member on built heritage' do you see this as additional training for the USAR Engineers or a separate person?

④ Page 24, Annex 1

Field Operations. The inclusion of additional procedures and forms for a specific type of situation can be problematic and it would be better to try and incorporate existing arrangements (ASR / Survey 123) for the collection of data. I understand the intent of the form however in many cases the circumstances to use it may not be clear.

4. From Veronica Piacentini

The Command and Control Chain between CH authority, CH departments and CFA is not clear. Usually, CFA should depend on CH Authority. The direct connection should be between LEMA and CH Authority and not between LEMA and CFA or LEMA and heritage professionals. I would better clarify this point since the beginning.

① Page 11, 3.1.2 Preparatory Actions for LEMA

- In cooperation with local heritage **departments**, prepare a map indicating the geolocations of all significant heritage places; including archaeological sites, museums, libraries, archives, religious sites and public monuments. This data should be periodically updated.
- Develop a routine for joint emergency simulations with local USAR Teams, **CFA and heritage professionals** at sites to improve readiness.
- In cooperation with local heritage **departments and CFA**, develop and periodically update a list of supplies (pp. 67, 93) needed for cultural heritage first aid.
- For heritage places that are located in risk-prone regions, develop coordination mechanisms with **local CFA Teams and relevant heritage departments** or management agencies; and seek their assistance during USAR operations should the need arise.

I would change “departments” with “Authority”. The CH departments should depend on the CH Authority and I would not mention here CFA and Heritage professionals. The CFA team, if activated, should be appointed and act on behalf of CH Authority.

I would add the following 2 points:

NDMA or LEMA, together with CHA, should define and include procedures for managing safeguarding CH activities within the support structure for emergency amangement

NDMA or LEMA should obtain infos related to the location and characteristics of safe sites for storage of CH, if any, or should help CHA in providing them.

② Page 12, 3.1.3 Preparatory Actions for Cultural Heritage

Authorities

Organise information briefs on important cultural heritage sites in each risk-prone

country for USAR Teams. This information should include local cultural or religious beliefs and special measures to be followed at heritage sites e.g., working in sacred spaces.

I would add “organize, together with LEMA...”

③ Page 13, 3.2.1 Recommendations for USAR Teams

Pre-deployment considerations

Information shared by heritage authorities on the Virtual On-Site Operations Coordination Centre (VOSOCC) should be examined and considered, when creating an operation plan. Additionally, USAR Teams should include **responsible heritage authorities**,....

I would say “Cultural Heritage professionals”

④ Page 13, 3.2.2 Recommendations for LEMA

- Appoint a person, who acts as a coordinator for cultural heritage first aid and may be contacted by international USAR teams.

I would add “.....through the USAR Coordination Cell”

⑤ Page 14, 3.2.3 Recommendations for Cultural Heritage

Authorities

- In collaboration with LEMA, prepare a roster of CFA teams and cultural heritage professionals who could be readily deployed during and immediately after search and rescue.

I would move this point in the preparedness phase and replace it with the following:

“Assist LEMA in providing more CH professionals if the available roster of CFA is not enough”

⑥ Page 16, 3.3.2 Procedure for LEMA

- LEMA should provide necessary supplies such as caution tapes, barriers etc for securing the site **once search and rescue is over.**

I would say “according to the findings of the search and rescue operations”

⑦ Page 17, 3.3.2 Procedure for CHA

- Cultural heritage authorities and **CFA** must be organised to receive relevant information regarding cultural heritage concerns and provide necessary feedback using both online platforms and/or by being present at the location of UCC.

I would not mention here CFA.

- The designated person in the USAR Team should transmit the damage and risk information for cultural heritage collected at the worksite to the designated contact person at the UCC. This information will help to plan cultural heritage first aid in Beyond the Rubble phase.

Not clear the Command and Control Chain. USAR Team should dialogues with UCC, while CHA appointed person should dialogue with CHA

⑧ Page 18, 3.4.2 For LEMA

In the demobilisation phase, LEMA should be prepared to collect all worksite triage forms and reports including photos that document the pre-operation status of the affected heritage sites in the operation area. This information must be shared **with the relevant cultural heritage authorities and CFA Teams** to implement safety and security measures at the affected sites and plan subsequent cultural heritage first aid operations.

I would say only “with CHA”

⑨ Page 19, 3.4.3 For Cultural Heritage Authorities

- Through reports and documentation provided by LEMA, they should make arrangements for procuring necessary supplies for structural stabilisation as well as emergency salvage and evacuation at the affected sites. In the demobilisation phase, **cultural heritage authorities should also plan for providing psychosocial first aid to communities** directly associated with the affected heritage sites. Refer to First Aid to Cultural Heritage in Times of Crisis Handbook and Toolkit., for additional information.

CHA does not have this expertise and capacity

Part2: Q&A

I. What can USAR Teams do (BtR) on site to preserve a cultural heritage?

“It depends on the type and the impact of the disaster or emergency. In short term, the teams can extinguish fires appropriately; can use shoring and stabilization tools and equipment for fortification of the parts or the whole structure.” **Ahmet TURUNÇ**

“The activities are listed on page 21 of the guide and should be more detailed in an annex to the INSARAG guideline. I would add to the list the possibility of controlled disassembly, also applicable in peacetime (for example before a conflict)” , **Ciro BOLOGNESE**

- Dependent of mission type.USAR teams are being asked to perform more mission packages than traditional rescue, to include recovery and humanitarian assistance.
- Documentation.Photograph, locate (GPS and or Total Stations), manpower and ability to walk on rubble to assist.
- If still a rescue operation, can secure the site 24 hours per day
- If recover 12-hour shifts (daytime only), so securing of site has a lapse
- Assist with law enforcement investigations. **John Dumsick, P.E.**

II. What can our WG do to facilitating the USAR Teams in every stage preparedness, mobilisation, action....) of the INSARAG Guideline?

“Firstly, our group can present the nature of the cultural sites to the USAR teams, as mentioned in the Field Guidelines for USAR at Heritage Sites. Then trainings can be organized for example a training about the policies of the countries about cultural heritage.

For the preparedness, we can suggest a form (depending on the suggestion that mentioned in the Field Guidelines for USAR at Heritage Sites) to teams for consideration on which preparedness, tools, equipment and expert can be effective at the site.

For mobilization, we can suggest special equipment, which are essential for response so they can plan how to transport these equipment. In addition, we can warn the USAR teams if there a need to have special permission for transporting the teams and other logistic tools which concerns the response for cultural heritage. Maybe the Planning Officers can be trained specially.

Additionally we can facilitate the efforts for teams in deploying. For example where the team that assigned for response to cultural heritage site should deploy (choosing the area, distance) and how the planning should have been made for sheltering, nutrition, sanitation etc. ” **Ahmet TURUNÇ**

“ We could identify the specific points of the INSARAG guidelines in which to insert references or clarifications regarding cultural heritage” , **Ciro BOLOGNESE**

- Preparedness (create networking channels, develop training materials)
- Mobilization (identification of contacts in host country, obtain research and mapping from LEMA, coordination with all USAR teams)
- Operation (develop methods of collaboration during search, stabilization, and debris removal efforts with local cultural heritage entities, engagement of local CH a necessity)
- Demobilization (transfer of documents, ownership of material to others)
- Post Mission (train, lessons learned, research) **John Dumsick,**

III. The Operation (Search, Rescue, training, signage) Element in the preservation action of the cultural heritage on site and the potential contradiction between the cultural heritage preserving and the life saving ?

“Lifesaving is a priority for USAR teams in all kind of response operations. In the other hand preserving cultural heritage is essential because these kind of sites are representing quite important, unique and irreplaceable background of humankind. Yet even if the lifesaving is still much important, the main objective must be being more knowledgeable and careful.” **Ahmet TURUNÇ**

“ Some aspects are related to common sense (for example, avoiding apply the marking on a work of art). I believe that ethical principles and cultural awareness training are already enough to avoid contradictions.” **Ciro BOLOGNESE**

- Search. Operate in small teams in given sector. CH personnel (local or on team) assist USAR on site once sites for rescue are identified. USAR identify looting, fires, hazards during rapid assessment for CH info.
- Rescue. Have local CH contact. Cooperate/collaborate. CH need to understand life safety is paramount and lots of competing interests.
- Training. How to identify and handle. How to log and care. Such as how to set up rapid cultural heritage conservation activities. **John Dumsick**

IV. What tools and technologies could applied to the post-trauma quick response of cultural heritage for the Flexible Response Working Group?

“ In addition to the tools are using at USAR operations, Geo radars, endoscopic cameras, wreckage imaging systems and

seismic acoustic search devices can be applied.” **Ahmet TURUNÇ**

“ The reference documents listed in the guide cover various tools and technologies. INSARAG could be proposed to evaluate them individually to define a standard on each specific topic outlined on page 21 of the guide. Could we think of an asterisk or something similar? ” **Ciro BOLOGNESE**

- Templates for Survey123 or QuickCapture
- Need to be careful for additional materials to include cache deployed. Very heavy and affects speed of deployment.
John Dumsick

V. What are the risks of the flexible response of the cultural heritage?

“ Lack of attention or secondary disaster/dangers can cause unwanted consequences for the people who are working in the site or for the cultural heritage itself.

Because of emergencies like pandemics, theft, or accidents that may occur while carrying and stacking can affect response operations.” **Ahmet TURUNÇ**

“In my opinion, the main risks are related to the safety of rescuers due to the aftershocks and the consequences on damaged buildings during the cultural assets recovering phase. The structural engineer at this stage has a key role.” **Ciro BOLOGNESE**

- Lack of knowledge currently internal to international USAR teams
- Possible lack of sensitivity to host nation cultural ideals. **John Dumsick,**