

***Capacity Buildings of INSARAG Recognized National
Accreditation Process (IRNAP) in High Disaster Risk Countries***

QU Guosheng

Prof. and Director of S&T, National Earthquake Response Support Service
(NERSS), Ministry of Emergency Management (MEM)
Vice President, The International Emergency Management Society (TIEMS)
Classifier of INSARAG of UNOCHA
Expert Group Leader of Earthquake SAR of MEM
Mentor of China Search and Rescue Team (CSAR)
Expert of Firefighter and Rescue in MEM
Email: qgsh@263.net, Tel : 86-13801225593

Content

1. Concepts and New Developments of IRNAP
2. High Disaster Risk Countries and Areas in Belt and Road Initiatives
3. Future Plan of UNOCHA for IRNAP
4. IRNAP in China and Contributions for the World.
5. Cooperation of Belt and Road Initiatives

Since 2005, INSARAG has an external classification process for international USAR teams (IEC process), which establishes verifiable operational standards and is an example of how a peer evaluation mechanism can provide added value in disaster preparedness and response. Up to now, there are about 60 USAR teams from the world passed INSARAG External Certification (IEC) and INSARAG External Recertification (IER) by INSARAG of UNOCHA.

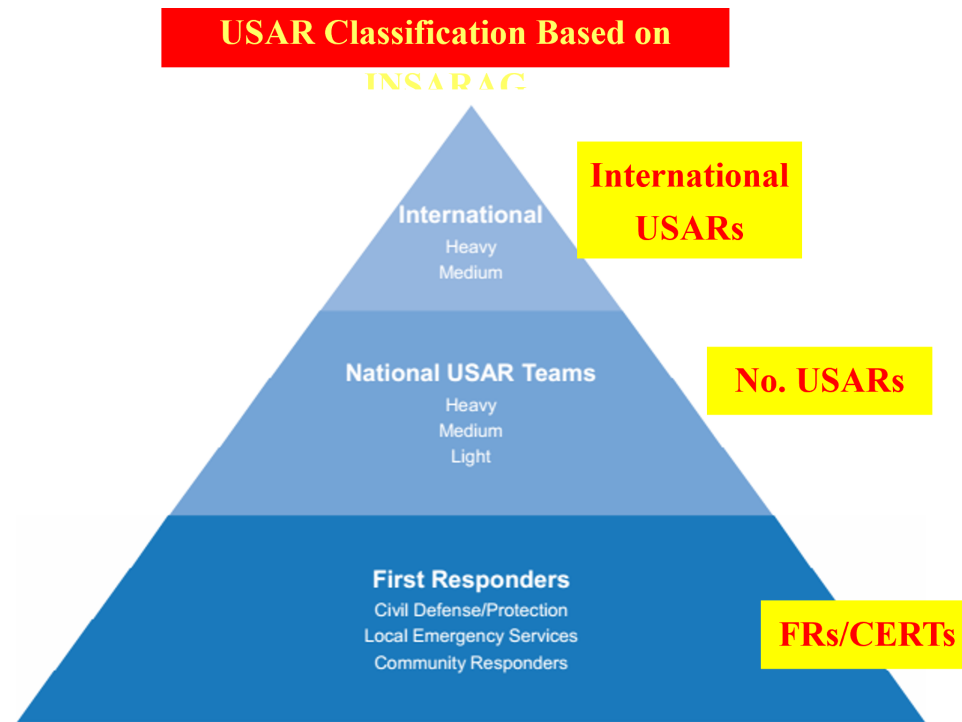
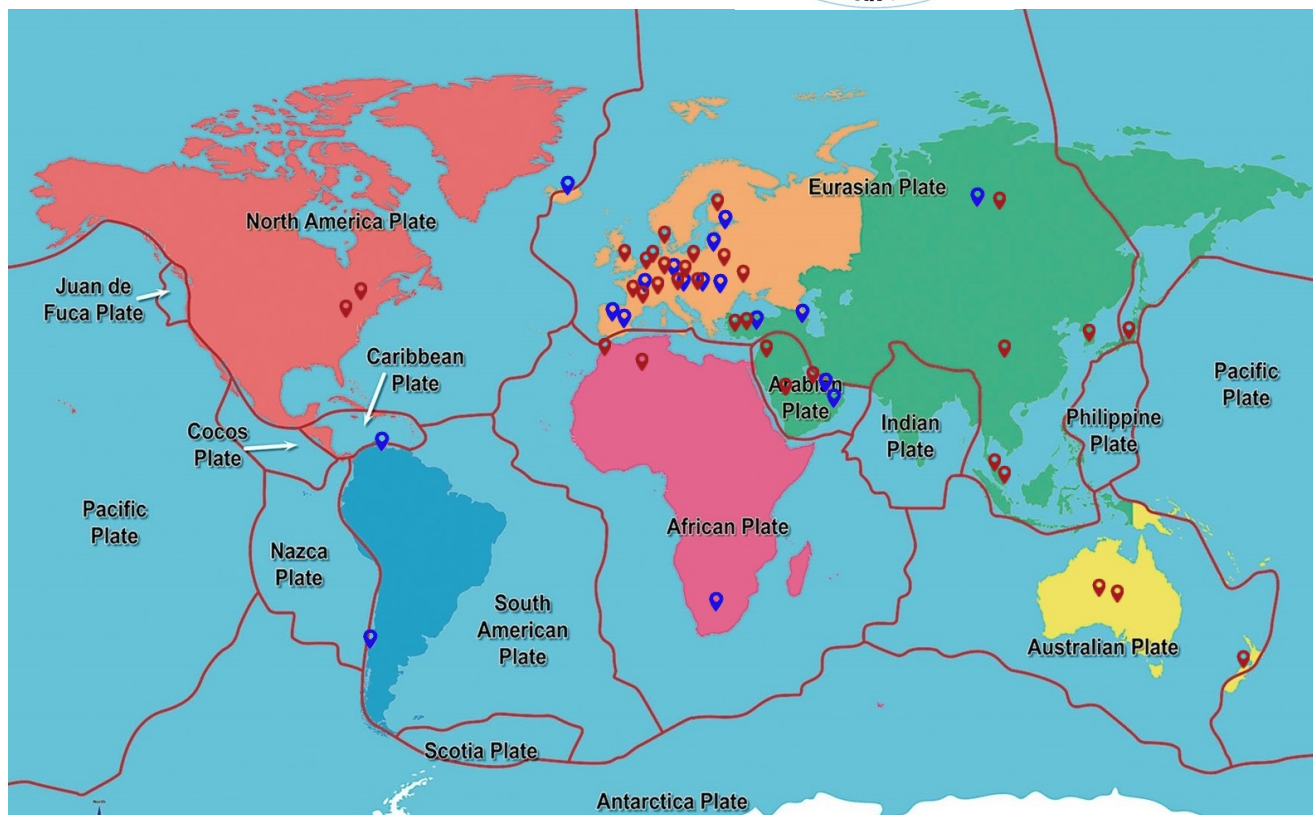


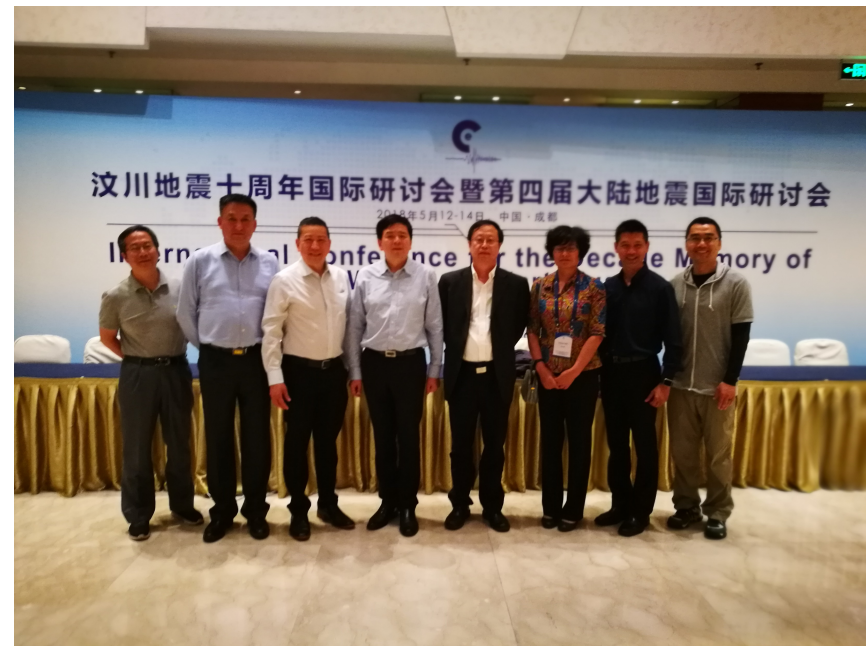
Figure 4: The INSARAG response framework



Algeria	Lithuania
Armenia	Malaysia
Australia	Morocco
Austria	New Zealand
Belarus	Oman
Belgium	Poland
Chile	Qatar
China	Romania
Colombia	Russia
Czech Republic	Saudi Arabia
Denmark	Singapore
Estonia	South Africa
Finland	Spain
France	Switzerland
Germany	The Netherlands
Hungary	Turkey
Iceland	Ukraine
Japan	United Arab Emirates
Jordan	United Kingdom
Korea	United States of America

	Asia-Pacific	AEME	Americas
Heavy	8	22	2
Medium	0	17	2
Total	8	39	4

In 2018, during the 10 years Memory Conference of Wenchuan Earthquake Disaster, INSARAG Secretariat hold workshop on National Accreditation Process (NAP) with experts of USARs of CEA and made some roadmap on developing NAP in demonstrated countries, China was one of them.





SCOPE:

1. INTRODUCTION

2. RATIONALE –UN GA 57/150

3. INSARAG STANDARDS for Quality National Response

4. DISCUSSION

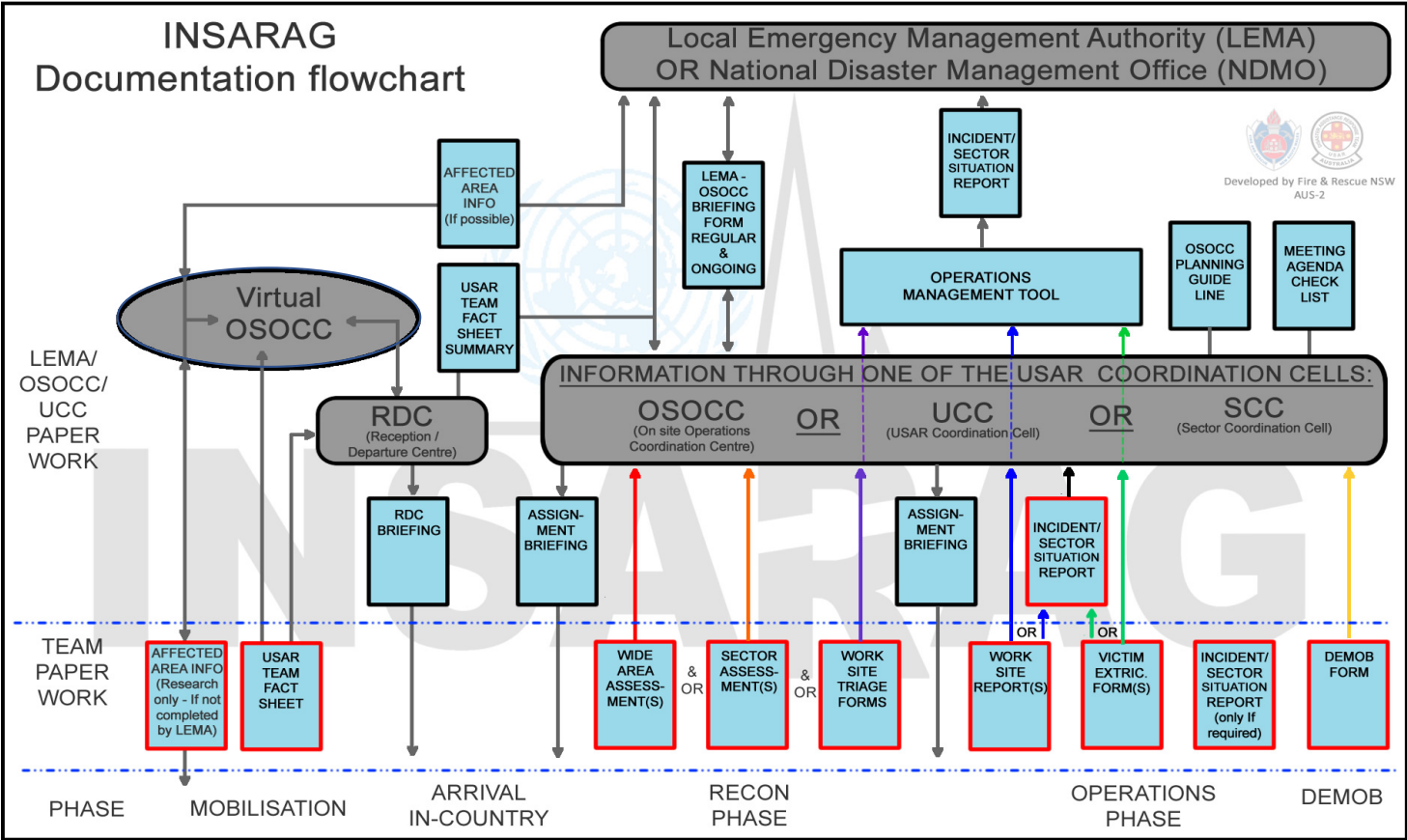
Focus on and Strengthening local actors = KEY to Effective (and *Faster* !) Disaster Response



UN Resolution **57/150** adopted by the
General Assembly (75th plenary meeting 16
December 2002)

“Strengthening the **effectiveness** and
coordination of international urban
search and rescue assistance”

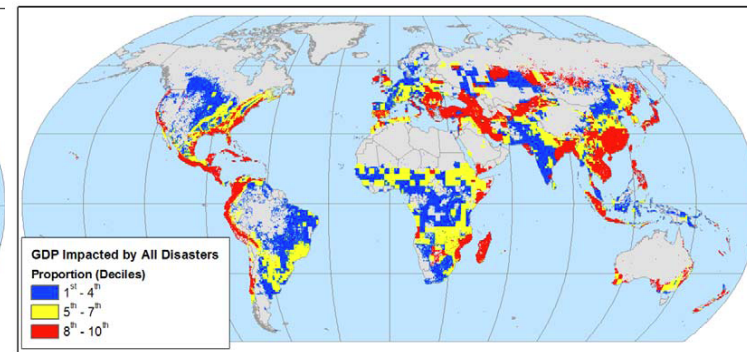
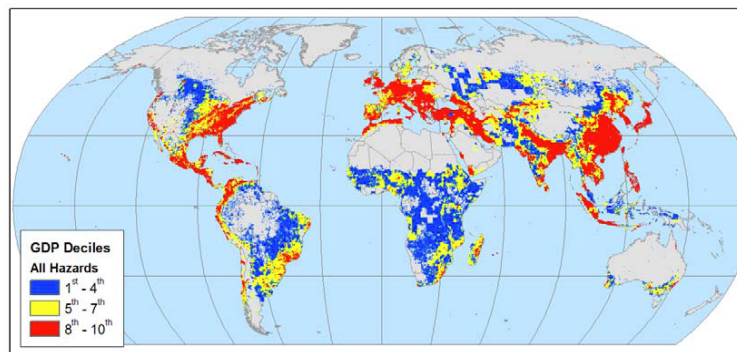
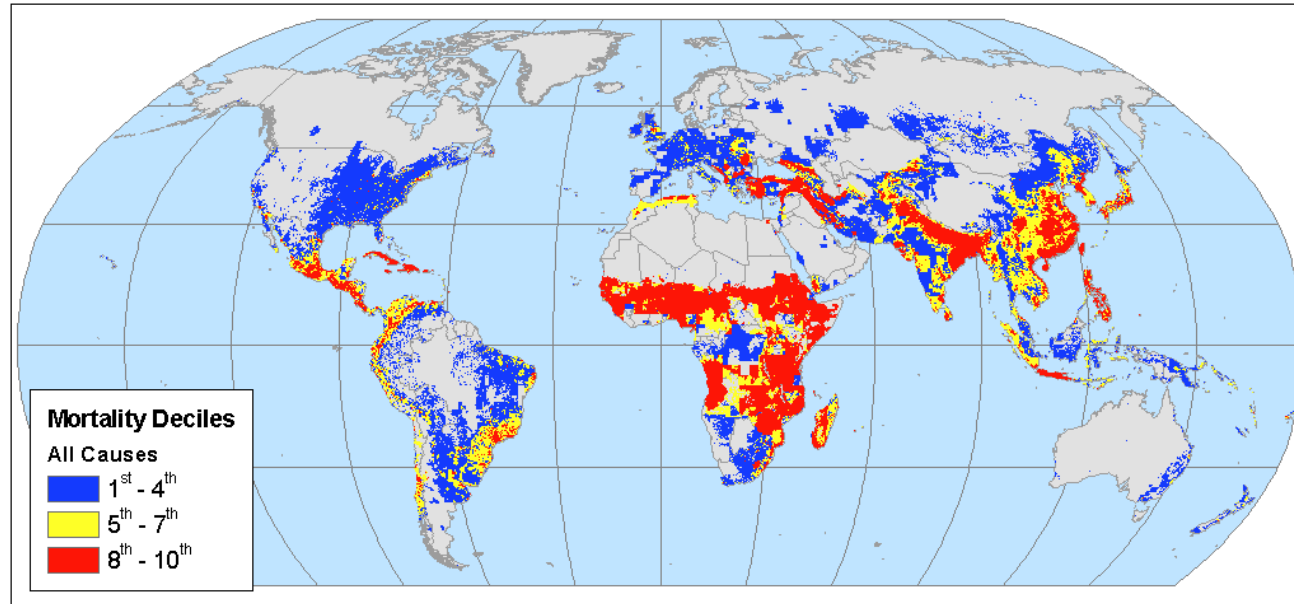
USAR COORDINATION INFORMATION MANAGEMENT



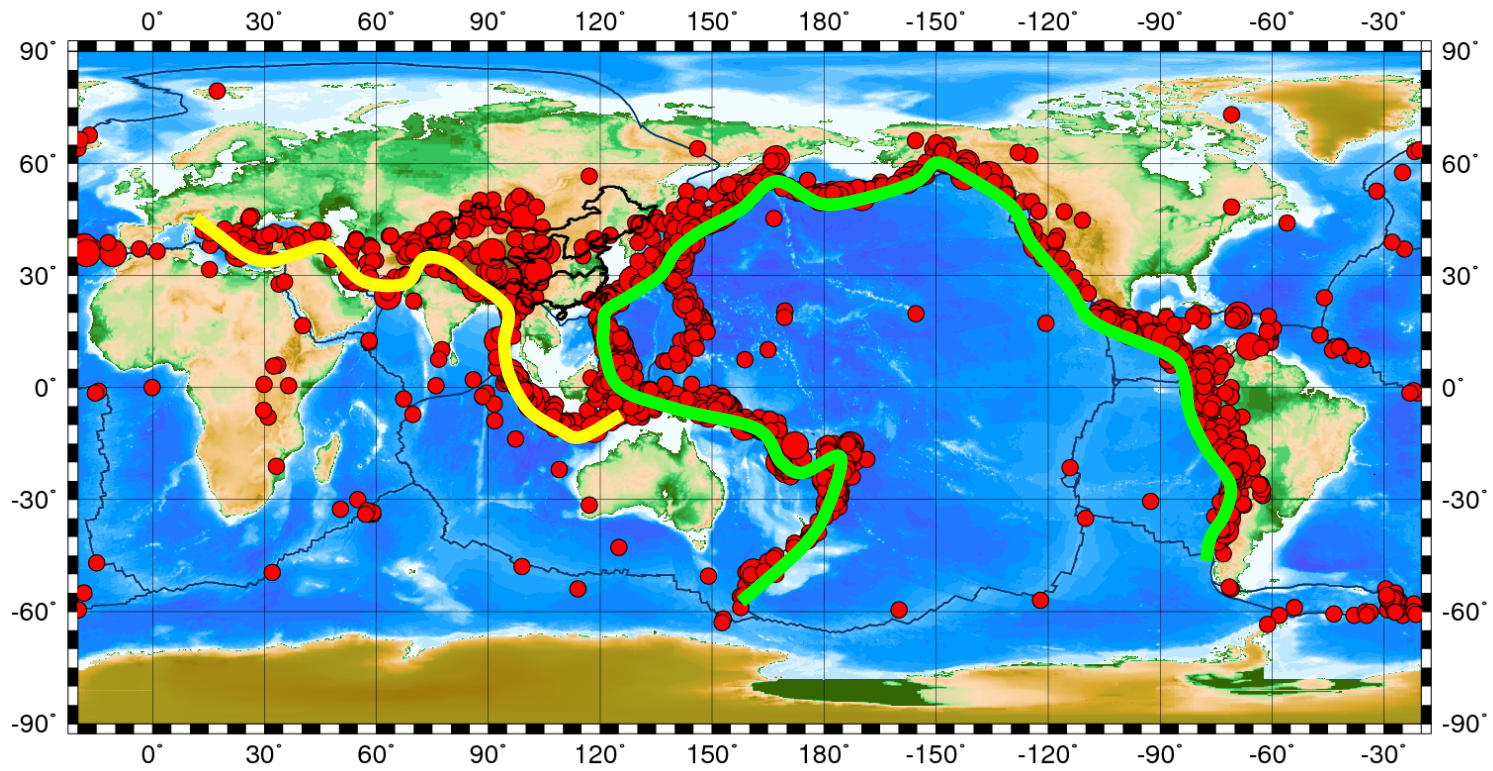
RDC display	UCC display	SCC display
Incoming USAR teams	Incoming medic teams	Incoming relief teams
Airport information	Airport facilities	Host gov't info
Current situation	Contacts & locations	Weather forecast
Safety & security	Infra-structure	Human impact
Victim handling	Resource tracking	Outstanding issues
Coord Staff info	Info source	Incident overview
Logistics available	Logistics requests	Sector overview
Reporting schedule	Briefing schedule	Meeting minutes
Basic org chart	Complex org chart	Version 1.1 August 2016

GUIDELINE	Vol 1: Policy	Vol 2A: Cap build	Vol 2B: Operations	Vol 2C: IEC/R	Vol 3: FOG	V.O manual	V.O guide (USAR)	Virtual OSOC	INSARAG.ORG	AZ World Airports	Weather	Google Maps	Planning cycle	MANUAL TO COME
------------------	---------------	-------------------	--------------------	---------------	------------	------------	------------------	---------------------	-------------	-------------------	---------	-------------	----------------	-----------------------

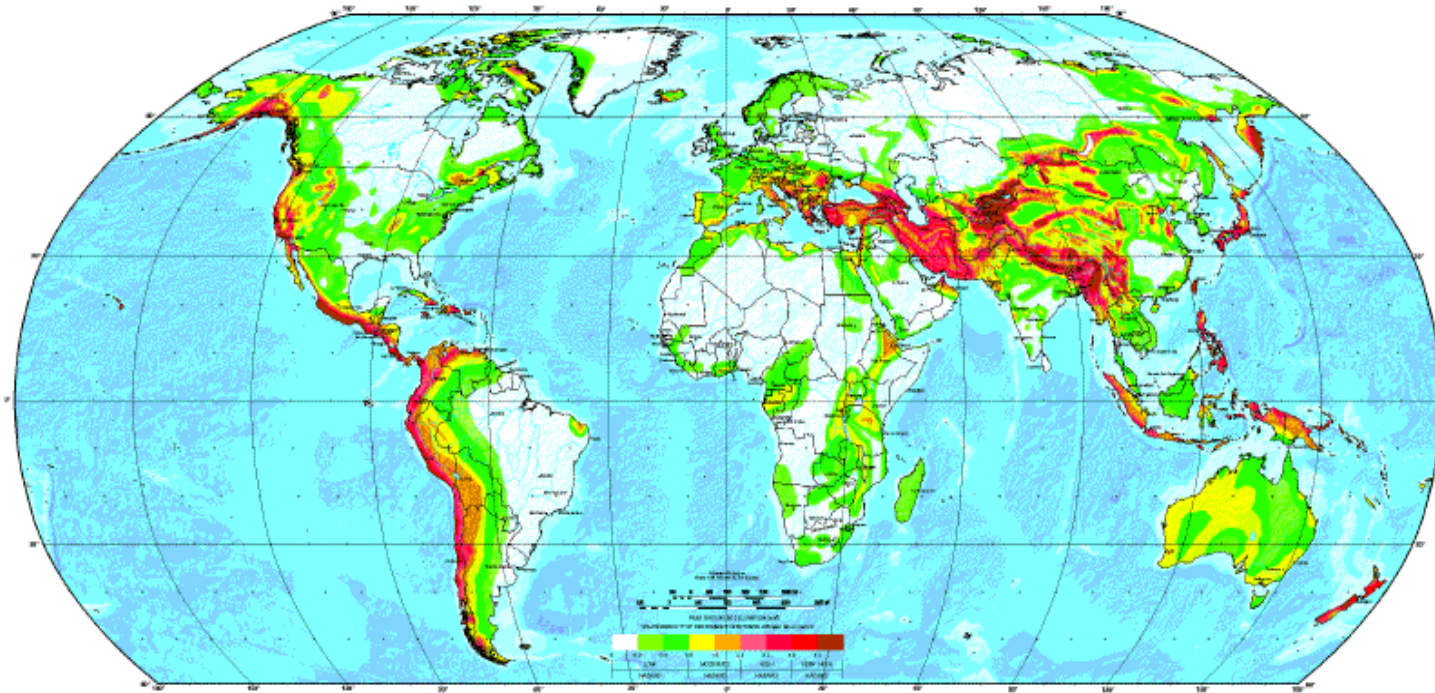
Disaster Risk Hotspots in the World



Global Seismic Belts Map



Global Seismic Risk Map



Overview all the locations of USARs in the world, most of them located in the developed countries and less risks such as the western and northern EU countries. But in the belt and road regional area, most high natural disaster countries where located surrounding India Ocean, from Tibet to middle east and north Africa region there are no more international USARs and also no more national level USARs.

The AIM :

INSARAG recommends countries **to establish a national USAR team accreditation mechanism** to allow a country to “*manage, monitor and establish the same standards officially and adhere closely to the INSARAG standards and guidance in developing its USAR national response systems*” .

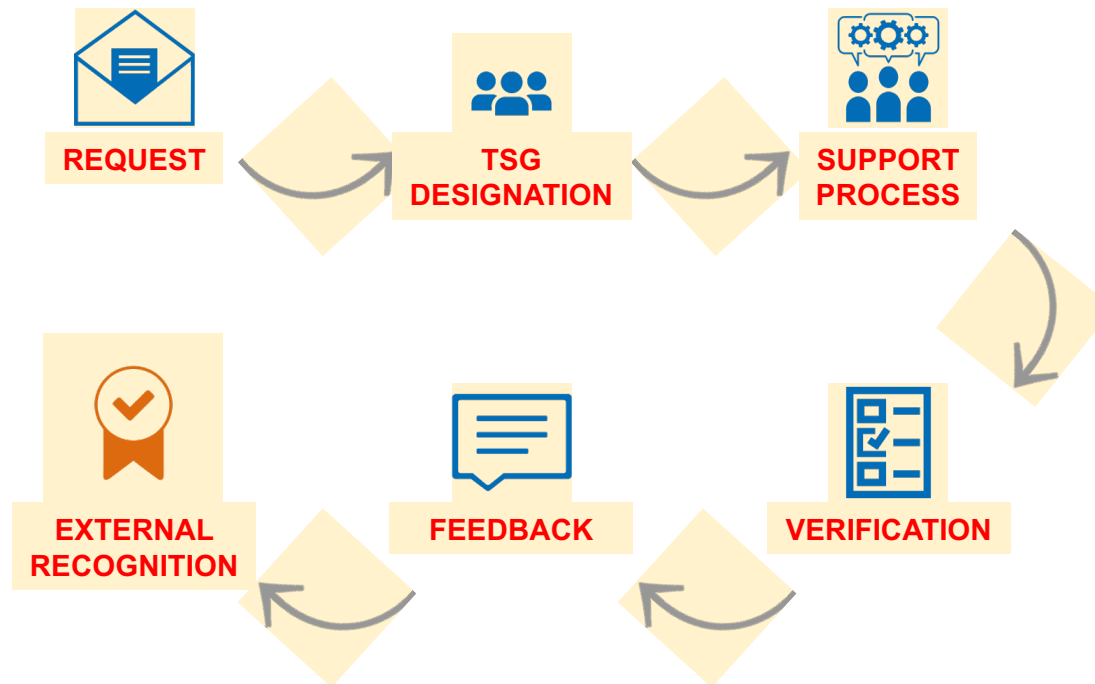


INSARAG mechanism for NAPs

CRITERIA

- Voluntary
- Supported by a Technical Support Group
(TSG) –Peer Review, Defined Process
- Country commitment
- INSARAG methodology
- Funded by requesting country

The recognition process



Since 2015, the INSARAG Guidelines explicitly encourage countries to establish national accreditation processes that are developed, adapted and framed in the country's own reality and recommends using the national INSARAG Guidelines and standards as reference.

So it is necessary for the high risks region and countries of natural disasters need to have the capacity buildings of INSARAG Recognized National Accreditation Process (IRNAP) to establish one platform to response the huge disasters.

4.4. IRNAP Process Criteria

INSARAG's recognition must comply with the criteria indicated below:

- **Voluntary:** Above all, this process must be absolutely voluntary and interested countries must make a formal request to obtain support and recognition.
- **Supported by a team of regional specialists:** A group of experts who support and recognize the country's efforts, such as compliance with the INSARAG methodology and minimum standards.
- **Countries' commitment:** The countries that obtained recognition through the Technical Group must also commit to provide experts for the Regional Roster.
- **Commitment to the INSARAG methodology:** The requesting country must show its willingness to work according to the INSARAG methodology.
- **Financed by the requesting country:** The requesting country must cover the costs related to the Technical Support and Recognition Group (except observers), but this may be done through different modalities, including bilateral agreements and donor support, among others.

4.5. IRNAP Process Levels

The support and recognition process has a series of key stages, including determining the level of the country. The work methodology and the completion of the stages will depend on the level of progress of the national USAR process and more specifically on the national USAR accreditation process.

Progress can be characterized in three levels:

- **Design level:** A country that requests support to meet the standards without yet having any existing process.
- **Advanced level:** A country that declares it partially complies with the methodology's standards and requests support for its full development.
- **Consolidated level:** A country that declares it complies with all of the methodology's standards and requests support for verification.

Hence, the terms of reference for the Technical Support Group will be established according to the identified level, and the duration of the process will vary according to this.

4.6. Initiation of the Support Process

4.6.2. Designation of the Technical Support Group (TSG)

When the INSARAG Secretariat receives a request from a country for recognition or support in the design or revision of its national USAR accreditation process, it will send the request to experts within the Regional Roster who will respond with their availability to support the national accreditation process.

Once the deadline for responding to the request has passed, the Secretariat compiles information on the available experts, downloads their profiles and shares this information with the requesting country. The requesting country will select at least one expert from the region within two weeks, with the option of adding/accepting other thematic experts and observers as part of the TSG.

The country communicates its selection to the Secretariat, which in turn informs the entire TSG roster through a message sent via the virtual OSOCC. The Secretariat will share with the selected TSG the contact information of the pertinent people from the requesting country so that they can get in touch and agree on the work modalities. See Figure 3.

Summary: Timeline for the formation of a TSG in support of a country

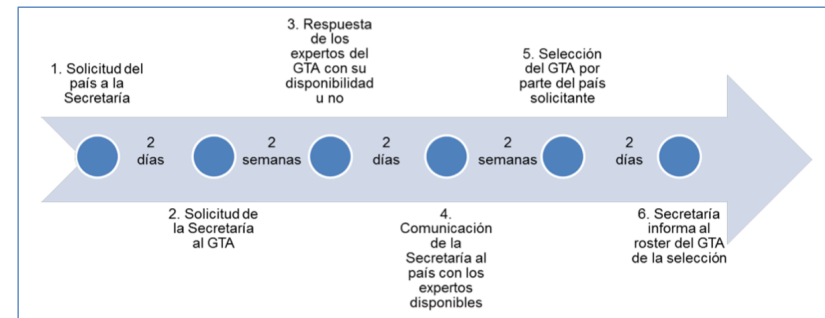


Figure 3 Timeline for the formation of a TSG in support of a country

IESRP FLOWCHART

STEP	REMARKS																		
<p>1</p> <p>REQUEST</p> <p>Interested country presents a formal request to the INSARAG Secretariat. The request is accompanied by:</p> <ul style="list-style-type: none"> Self-evaluation of current achievement of INSARAG national standards A declaration of commitment to comply with INSARAG methodology and guidelines; fund the IESRP process; implement TSG recommendations; and maintain communication with TSG 	<p>Signed by the highest national disaster management authority, send to INSARAG Secretariat/OCHA Geneva, with copy to the INSARAG policy focal point, INSARAG Regional Chairmanship Group and UN Resident Coordinator in the country.</p>																		
<p>2</p> <p>DESIGNATION OF THE TSG</p> <ol style="list-style-type: none"> INSARAG Secretariat sends a request to the regional Technical Support Group (TSG) roster TSG experts respond with their availability within two weeks INSARAG Secretariat informs requesting country of available experts Requesting country has two weeks to select the TSG INSARAG Secretariat informs the TSG roster of the selection 	<p>Regional TSG roster has two categories of experts:</p> <ol style="list-style-type: none"> Members: comply with all the established criteria Observers: considerable experience but may lack a specific aspect <p>Requesting country selects at least 3 experts from 3 different countries of the region with the option to add/accept observers as part of the TSG.</p>																		
<p>3</p> <p>THE SUPPORT PROCESS</p> <p>TSG advises the country in the implementation of the criteria and steps for the national USAR team accreditation process during an agreed duration and verifies the achievement of the INSARAG guidelines and methodology</p> <table border="1"> <thead> <tr> <th>Key steps in the support process</th> <th>Max. time</th> </tr> </thead> <tbody> <tr> <td>3a. Review and achieve consensus on self-assessment</td> <td>90 days</td> </tr> <tr> <td>3b. Adaptation and agreement of the TSG ToR, and elaboration and agreement of a work plan of the support</td> <td>30 days</td> </tr> <tr> <td>3c. Requesting country presents progress reports on the implementation of the national USAR accreditation process</td> <td>30-180 days</td> </tr> <tr> <td>3d. Review of the progress reports by the TSG and presenting observations</td> <td></td> </tr> <tr> <td>3e. Joint analysis of the progress by the TSG and requesting country</td> <td>30 days¹</td> </tr> <tr> <td>3f. Final verification visit</td> <td>3 days</td> </tr> <tr> <td>3g. Presentation of the final report to the requesting country and the INSARAG Secretariat</td> <td>15 days</td> </tr> <tr> <td>3h. Drafting of the debrief report by the TSG with the view of improving the IESRP process.</td> <td>15 days</td> </tr> </tbody> </table>	Key steps in the support process	Max. time	3a. Review and achieve consensus on self-assessment	90 days	3b. Adaptation and agreement of the TSG ToR, and elaboration and agreement of a work plan of the support	30 days	3c. Requesting country presents progress reports on the implementation of the national USAR accreditation process	30-180 days	3d. Review of the progress reports by the TSG and presenting observations		3e. Joint analysis of the progress by the TSG and requesting country	30 days ¹	3f. Final verification visit	3 days	3g. Presentation of the final report to the requesting country and the INSARAG Secretariat	15 days	3h. Drafting of the debrief report by the TSG with the view of improving the IESRP process.	15 days	<p>Modalities</p> <p>The TSG working modalities and methodology will be agreed on by the TSG and the requesting country, and will depend on the level of progress of the requested country in establishing a national accreditation process.</p> <p>Verification/evaluation methodology</p> <p>Progress on steps and criteria will be in accordance with the following color coding:</p> <ul style="list-style-type: none"> GREEN or "Y" (Yes): fully meets/exceeds the minimum standards YELLOW or "M" (Meets): meets but additional improvement recommended. ORANGE or "RT" (Requires time): does not meet as it depends on conditions which impede meeting of the standard. RED or "NY" (Not Yet): Does not meet minimum conditions <p>This color coding will be used for self-assessment, progress reports and the final report.</p>
Key steps in the support process	Max. time																		
3a. Review and achieve consensus on self-assessment	90 days																		
3b. Adaptation and agreement of the TSG ToR, and elaboration and agreement of a work plan of the support	30 days																		
3c. Requesting country presents progress reports on the implementation of the national USAR accreditation process	30-180 days																		
3d. Review of the progress reports by the TSG and presenting observations																			
3e. Joint analysis of the progress by the TSG and requesting country	30 days ¹																		
3f. Final verification visit	3 days																		
3g. Presentation of the final report to the requesting country and the INSARAG Secretariat	15 days																		
3h. Drafting of the debrief report by the TSG with the view of improving the IESRP process.	15 days																		
<p>4</p> <p>RECOGNITION</p> <p>the receipt of the final report from the TSG, the INSARAG Secretariat issues a recognition in the form of a certificate to the national emergency management authorities in charge of the national USAR accreditation process.</p>	<p>It is desirable for the INSARAG community to provide some kind of recognition to the national authorities which have demonstrated that they have incorporated and implemented the INSARAG methodology within their own national standards and processes. It is a way for the INSARAG community to promote national capacity strengthening processes and a way to</p>																		

Capacity Buildings of USARs in China

USARs and Professional Teams in China

Two Stages to develop USARs in China:

1. First Stage: Since 2001, CISAR was founded, and then 24 provincial teams were established.

2. Second Stage: After Wenchuan Earthquake, USARs developed rapidly in China:

1) Provincial USARs team: total 86 teams .

2) Working safety teams: more than 100. teams for coal mine.

3) Armed Police teams: 32 teams for chemical and explosion.

4) Fire fighter USARs teams: 33 teams in each province.

5) Fire fighter teams: 4600 in county levels gov.

6) Volunteer teams: more than 100 in whole country.

In China, professional teams are near 5000.

IEC Certification in China

In Dec. 2016, Working Guideline for IEC in domestic of China have been issued to provincial earthquake administrations. We called CESARAG Guideline.

**Capacity Standards of USAR
Classification in China**

**Criteria and Check-lists for
USAR Certification in China**

**National Accreditation Process (NAP) by
UNOCHA INSARAG Secretariat
A pilot project of UNOCHA for National
level USARs**

IRNAP Certification in China

The time length of certification is about 30 hours with a scenario earthquake over Ms 7.5.

Simulating whole of the operational process:

- Emergency response, on-time decision-making, preparedness, mobilization, operation, demobilization.
- Management, Search, Rescue, Medical Care, Logistic Supports
- 5-8 SAR scenario debris objectives
- RDC and OSOCC under LEMA

**Follow IEC of
UNOCHA
Secretariat of
MEM**

There are 17 identified roles based on the five components of USAR teams:

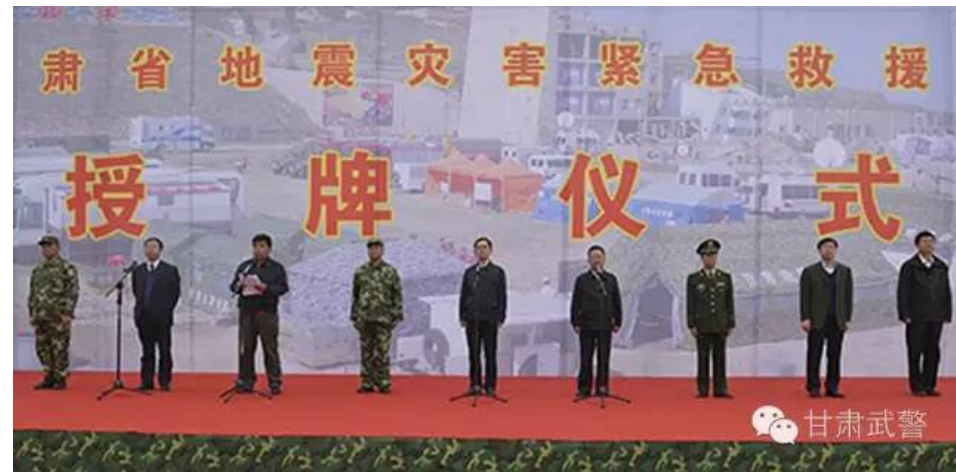
USAR Component	Role	Function
Management	Team Leader	Command
	Deputy Team Leader/Operations Officer	Coordination/Operational Control
	Planning Officer	Planning
	Liaison Officer/Deputy Liaison Officer	Liaison/Media/Reporting/RDC/OSOCC/UCC
	Structural Engineer	Structural Assessment/Analysis
	Safety Officer	Safety/Security
Search	Technical Search Specialist	Technical Search
	Search Dog Handler	Dog Search
	Hazmat (hazardous materials)	Hazmat Assessment
Rescue	Rescue Team Officer	Breaking/breaching/cutting/shoring/tactical rope
	Rescuer	Breaking/breaching/cutting/shoring/tactical rope
	Heavy Rigging Specialist	Lifting/Moving
Medical	Medical Team Manager (medical doctor)	Team Care (personnel/search dogs)
	Paramedic/Nurse	Patient Care
Logistics	Logistics Team Manager	BoO Management
	Logistics Specialist	Food and water supply/base camp operations/transport capacity/fuel supply
	Communications Specialist	Communications

Table 3: Seventeen identified roles based on the five components of USAR teams.

The first Heavy USAR team passed NAP in 16, Oct. 2016 in China

In the end of 2015, expert of USARs from China Earthquake Administration (CEA) supposed that national level USARs of China need to certificate under the INSARAG, and then experts of USARs of China Earthquake Administration guided the provincial USARs to passed heavy USARs certification and issued national level standard of USARs in 2016.

In 2017, the INSARAG Steering Group approved the INSARAG External Support and Recognition proposal (PAREI) for national accreditation processes, and encouraged Regional Groups to put it into practice and report on its implementation at the annual meetings of the Steering Group.



It is possible to transfer Chinese experience of capacity buildings of international and national level USARs to whole of the world to response the catastrophes.

12 15



5. Cooperation of Belt and Road Initiatives

MEM Focus On

After the foundation of new ministry, a lot of changes and achievements were built up: more focus on:

- The emergency preparedness,
- Capacity building of international heavy USAR
- 7 kinds of international rescue teams,
- 4 kinds of domestic rescue teams (water, mountains, USARs and aviation search and rescue,
- Some important S&T plan on emergency management (preparedness, response, rescue and recovery),
- Assessment of disaster risks,
- Rescue coordination and NGO's rescue teams in China,
- Disaster risk monitoring and early warning,
- Urban and forest (wild) fire fighter strengthen program,
- National Accreditation Process (NAP) and USARs certification
- Opened cooperation for international scale.

MEM Focus On

Several Big projects were set up

- The disaster risk survey and hazard identification project,
- The regional rescue commanding centers project,
- Natural disaster monitoring and early warning system and broadcast project which will make a great role to China emergency management development in the future;
- Modernization Project of Equipment Manufacture for Disaster Preparedness and Rescue

As well as some disaster mitigation and prevention projects in China.

Stakeholders and responsibilities, response phase of MEM

Type of disaster	MEM		Function	Responsible Organisation
	Y	N		
Structure Fire	✓		Firefighting Treatment of injured/affected	Fire Rescue Bureau
Wildfire	✓		Firefighting Preparedness	Forest Fire Rescue Bureau Forestry Commission
Emergency Medical	✓		Treatment of injured/affected	Ministry of Public Health
Floods	✓		Preparedness Pumping of properties/Rescue Rescue	Ministry of Emergency Management Fire Rescue Bureau of MEM Ministry of Water Resources
Landslides	✓		Preparedness Properties/Rescue Life Rescue	Ministry of Emergency Management Fire Rescue Bureau of MEM Ministry of Natural Resources
Drought	✓		Improving supplies/Rationing	Ministry of Emergency Management Ministry of Water Resources
Earthquake and Volcanoes	✓		Assessment of losses, Life SAR, Life lines recovery Infrastructure protection Recovery and Relief	USAR teams of MEM Fire Rescue Bureau of MEM Forest Fire Rescue Bureau of MEM Local governments China Earthquake Administration under MEM
Storms and Hurricanes	✓		Scene safety Rescue of trapped Treatment of injured/affected Infrastructure protection Infrastructure repair & recovery	Ministry of Emergency Management Fire Rescue Bureau of MEM Forest Fire Rescue Bureau of MEM Local governments China Meteorological Bureau
Epidemics		✓	Inoculation/vaccination Treatment of affected population	Ministry of Public Health Local Governments
Vehicle Accidents	✓		Scene safety/Investigation Rescue of trapped Treatment of injured/affected Recovery and infrastructure repair	Police Fire Rescue Bureau of MEM Ministry of Public Health Highways Agency
Locust invasion	✓		Monitoring Response	Ministry of Natural Resources Ministry of Emergency Management
Tsunamis	✓		Monitoring	Ministry of Natural Resources

Stakeholders and responsibilities, response phase

Function	Technical coordination	Co-responsible
Warning	Each ministry of natural disaster monitoring and MEM	Other institutions including MEM, private sector and Chinese Red Cross.
Emergency plans	MEM	Other institutions including ministries of natural disaster, private sector and Chinese Red Cross
Coordination	MEM	Other institutions including ministries of natural disaster, private sector and Chinese Red Cross
Damage assessment	MEM	Other institutions including ministries of natural disaster, private sector and Chinese Red Cross
Security	Secretary of Government; MEM	Other institutions including ministries of natural disaster,
Search and rescue	MEM	Military and Chinese Red Cross
Strategic services	MEM	Other institutions including ministries of natural disaster, private sector and Chinese Red Cross
Health services	Ministry of Public Health	Other institutions including private sector and Chinese Red Cross
Supply	MEM	Other institutions including ministries of natural disaster, private sector and Chinese Red Cross
Social communication	MEM	Other institutions including private sector and mass media.

The MEM in China is the main ministry that operates civil protection, and responders come from a number of organisations, as illustrated in the following table.

Staff	Total	Paid	Volunteer	Role Definition in China	Comments
Emergency Managers	huge	huge	280 teams	Main roles	Estimated at 5% of all firefighters
Despatchers – Control Staff	huge	huge	0		Estimated at 2.5% of all firefighters
Senior Officers - FRS	huge	huge	huge		Estimated at 1% of all firefighters
Firefighters - Structural	175,000	175,000	0	All firefighters 2019	Total under central government
Firefighters - Wildland	25,000	25,000	0	All firefighters 2019	Total under central government
Emergency Medical	huge	huge	huge	Ministry of Public Health Red Cross,999/120, CDC of China	Ministry of Public Health Red Cross,999/120, CDC of China
Administrative Personnel	huge	huge	huge	MEM	Gov.
Maritime Rescue - Frontline	huge	huge	huge	Ministry of Transportation	Professional coastguard helicopter crews Maritime Rescue teams
TOTAL					

Coordination and Supervision Mechanisms of MEM

Effective emergency response in China rests on guiding principles that determine the coordination and supervision arrangements for all phases of Civil Protection, specifically **Preparedness, Response, Emergency Operation Activities, Relocation and Recovery.**

Preparedness Coordination

A key part of the structure of civil protection preparedness within China is the establishment of Local Resilience and CERT (Community Emergency Response Teams).

The purpose of Local Resilience is to ensure responders:

- Develop a Community Risk Register that lists significant risk sites for the area.
 - Undertake a systematic, planned and coordinated approach in relation to:
 - Risk
 - Planning for emergencies
 - Planning for business continuity management
 - Publishing information about risk assessments and plans
 - Arrangements to warn and inform the public
 - Support the preparation of multi-agency plans and other documents, including protocols and agreements and the co-ordination of multi-agency exercises and other training events.
- Different levels of government in China have also made a strong contribution to local resilience and community preparedness to improve the capacity of local resilience.

Coordination and Supervision Mechanisms of MEM

Response, Operation, Relocation and Recovery Coordination

There are four broad types (or levels) of emergency, which are likely to require direct central government engagement to provide resources beyond those needed by emergencies that can be managed locally. These are:

Level 1–National Response (Catastrophic Emergency): this is an emergency that has an exceptionally high and potentially widespread impact and requires immediate central government direction and support. Normally, when disaster issues cross more than two provinces, and the death toll is over 300 (natural disasters), or over 30 (work safety disasters), national level response will be engaged by the MEM.

Level 2 –Regional/Provincial Response (Serious Emergency): this is an emergency, which has, or threatens, a wide and/or prolonged impact requiring sustained provincial government coordination and support. Normally, cross more than two regions, and the death toll is between 50-299 (natural disasters), or less than 30 but larger than 10 (work safety disasters) by the Bureau of Emergency Management of the province. BEM

Level 3–City/Regional Response (Significant Emergency); this is an emergency, which has, or threatens, requiring sustained regional government coordination and support. Normally, across more than two counties, and death toll is between 20-49 (natural disasters), or less than 10 but larger than 3 (work safety disasters) by the BEM.

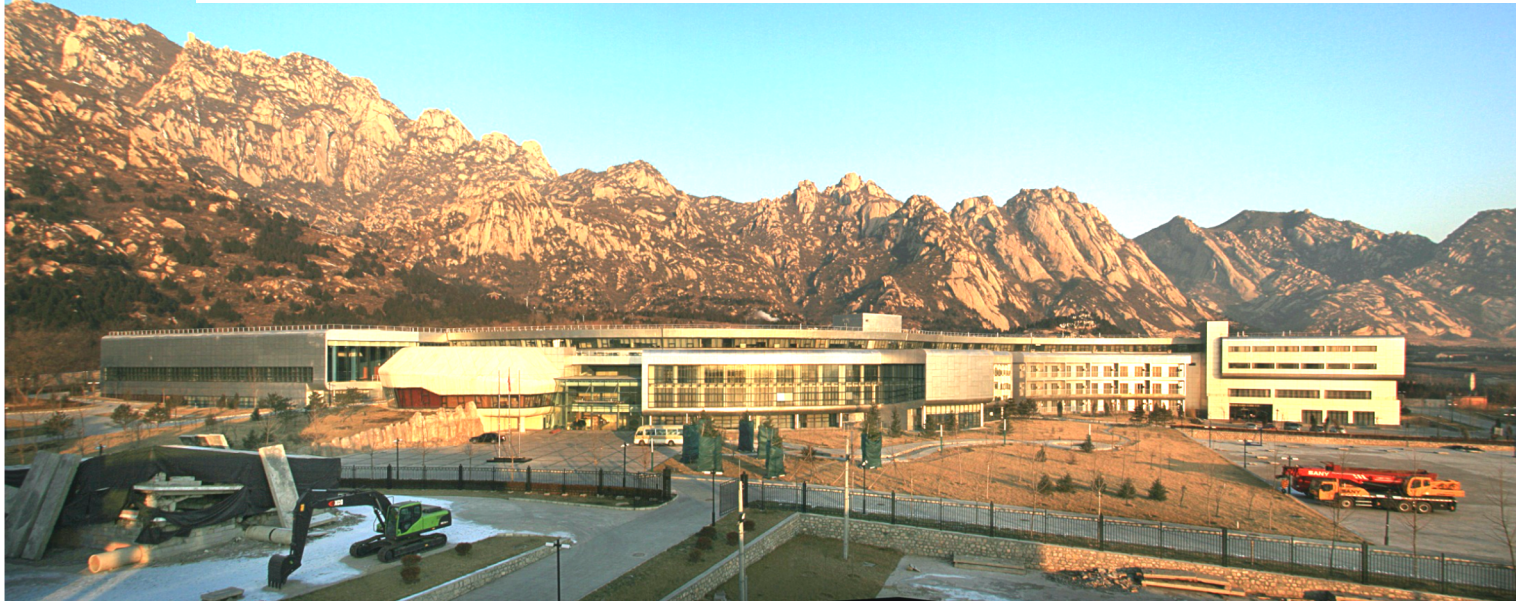
Level 4–County Response (Significant Emergency); is an emergency, which has, or threatens, requiring sustained county government coordination and support. Normally, cross more than two counties, and the death toll is between 0-19 (natural disasters), or less than 3 (work safety disasters) by the Office of Emergency Management of the county.

It is possible to transfer Chinese experience of capacity buildings of international and national level USARs to whole of the world to response the catastrophes.

国家地震灾害紧急救援队救援行动分布图 (2001-2015)
 CISAR GLOBAL PRESENCE (2001-2015)



China National Training Base for Urban Search and Rescue (CNSART)



- 1) Training for CISAR or CNSAR annually**
- 2) Training for Provincial Teams**
- 3) Training for Emergency Managers**
- 4) Training for First Responders**
- 5) Training for residents volunteer**
- 6) Exchange for International Scale**

Thanks a lot !

