

*Capacity Buildings of USARs in China*

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1. Developments of the International USAR Systems Based INSARAG
2. China's USARs Capacity-Buildings and Future Response
3. Future Developments of IRNAP and Planning in Developing Countries



# New Emergency Management in a Resilience Era Facing Health, Climate, and Energy Challenges

## 1. Developments of the International USAR Systems Based INSARAG



## USAR Classification Based on INSARAG



Figure 4: The INSARAG USAR response framework.





## Standards at ALL LEVELS for Quality Response:

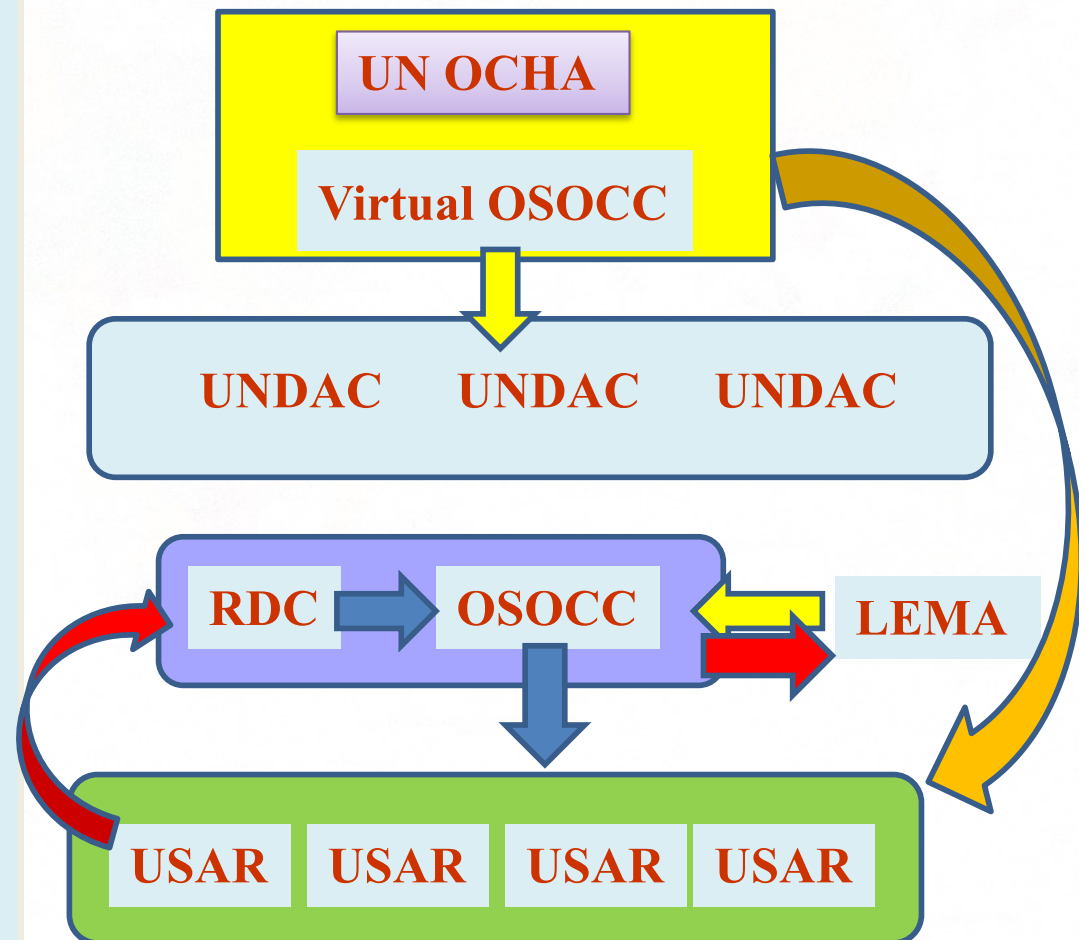


# INSARAG USAR Response Framework



## INTERNATIONAL USAR RESPONSE ENTITIES and INSARAG

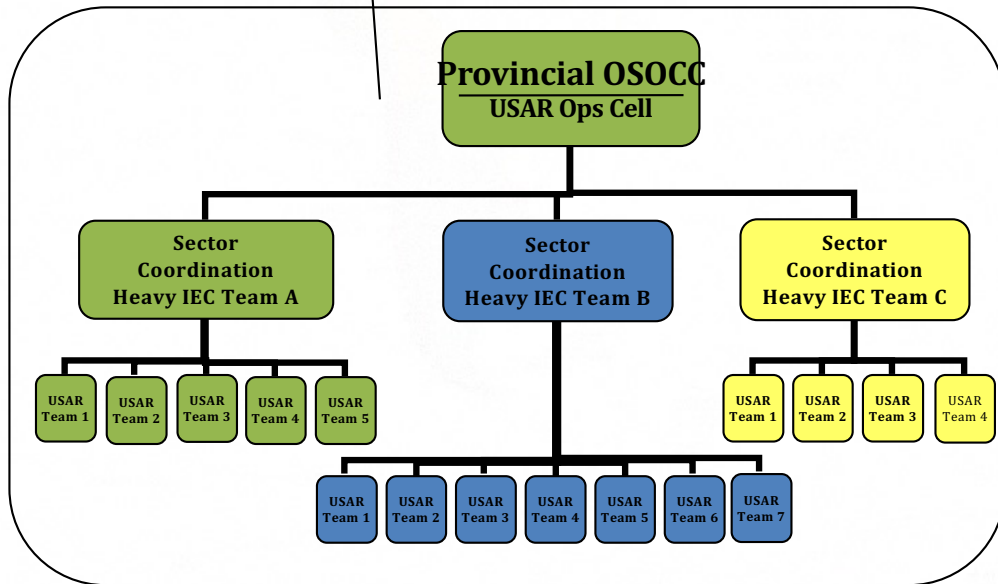
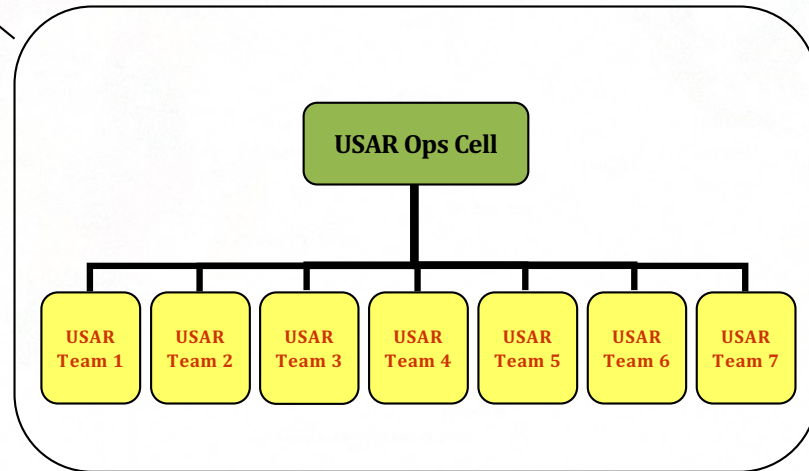
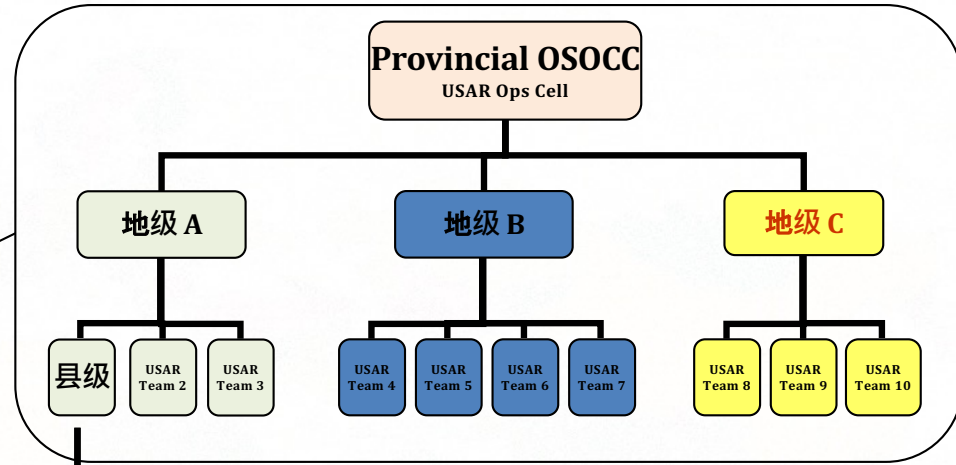
- UN OCHA (Office of Coordination for Humanitarian Affairs)
- LEMA (Local Emergency Management Authority)
- UNDAC (United Nations Disaster Assessment and Coordination)
- USAR (Urban Search and Rescue)
- OSOCC (On-Site Operations Coordination Centre)  
RDC(Reception Departure Centre )
- Virtual OSOCC



# New Emergency Management in a Resilience Era Facing Health, Climate, and Energy Challenges

## Models of Multi-Sub and Decentralized OSOCC for USAR

**National Level OSOCC**  
USAR Ops Cell



## 2. China's USARs Capacity-Buildings and Future Response



## USAR Classification Based on INSARAG



Figure 4: The INSARAG USAR response framework.



## 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**





**USAR have the SOP for Heavy, Medium, and Light team  
and have INSARAG External Certification (IEC)**

CISAR pass the INSARAG External Classification (IEC) of Heavy SAR Team in 14, Nov. 2009. China is 12th in the world, second in Asia.

**SOP of CISAR was established since 2009**





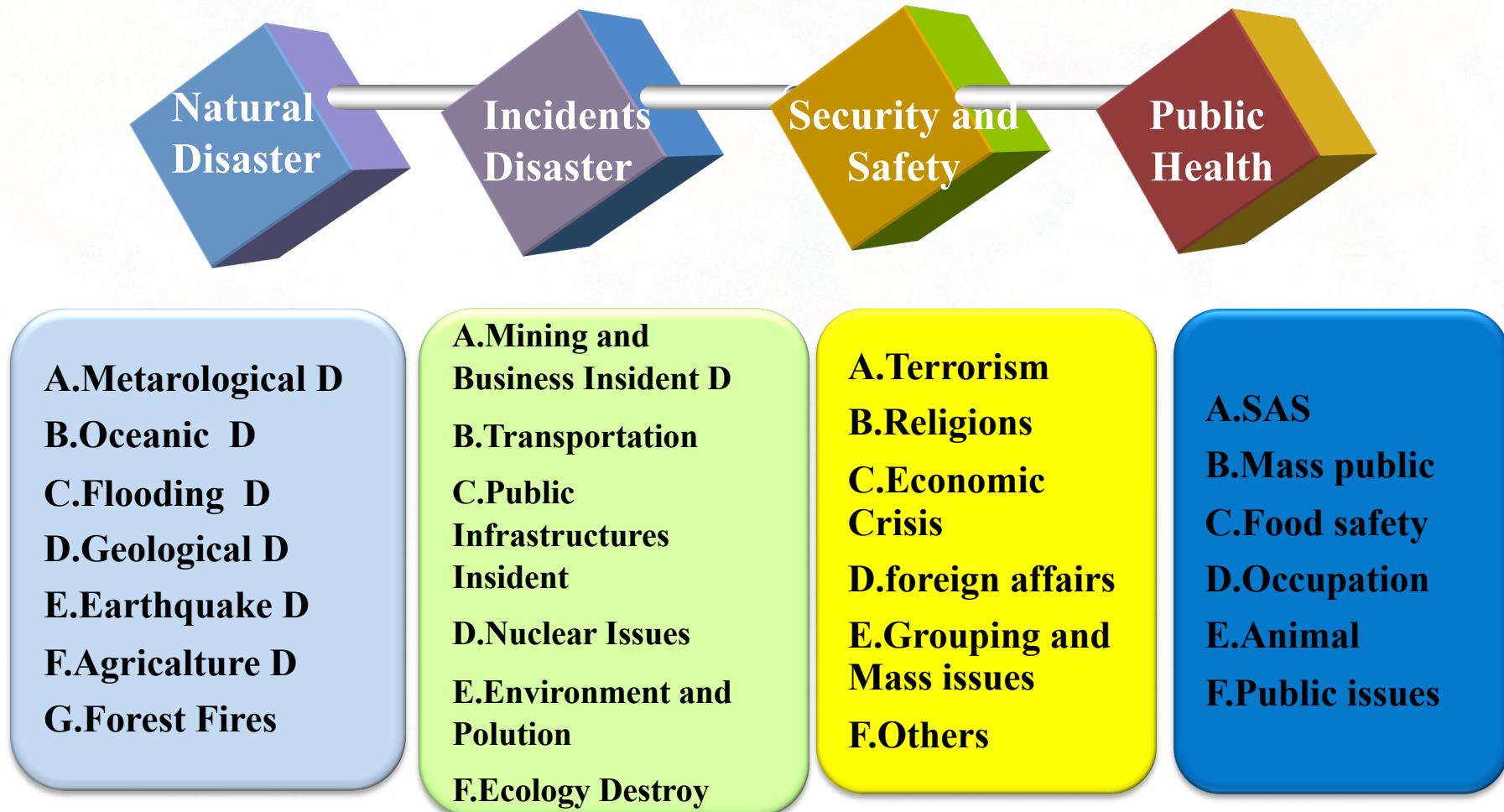
# New Emergency Management in a Resilience Era Facing Health, Climate, and Energy Challenges

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)

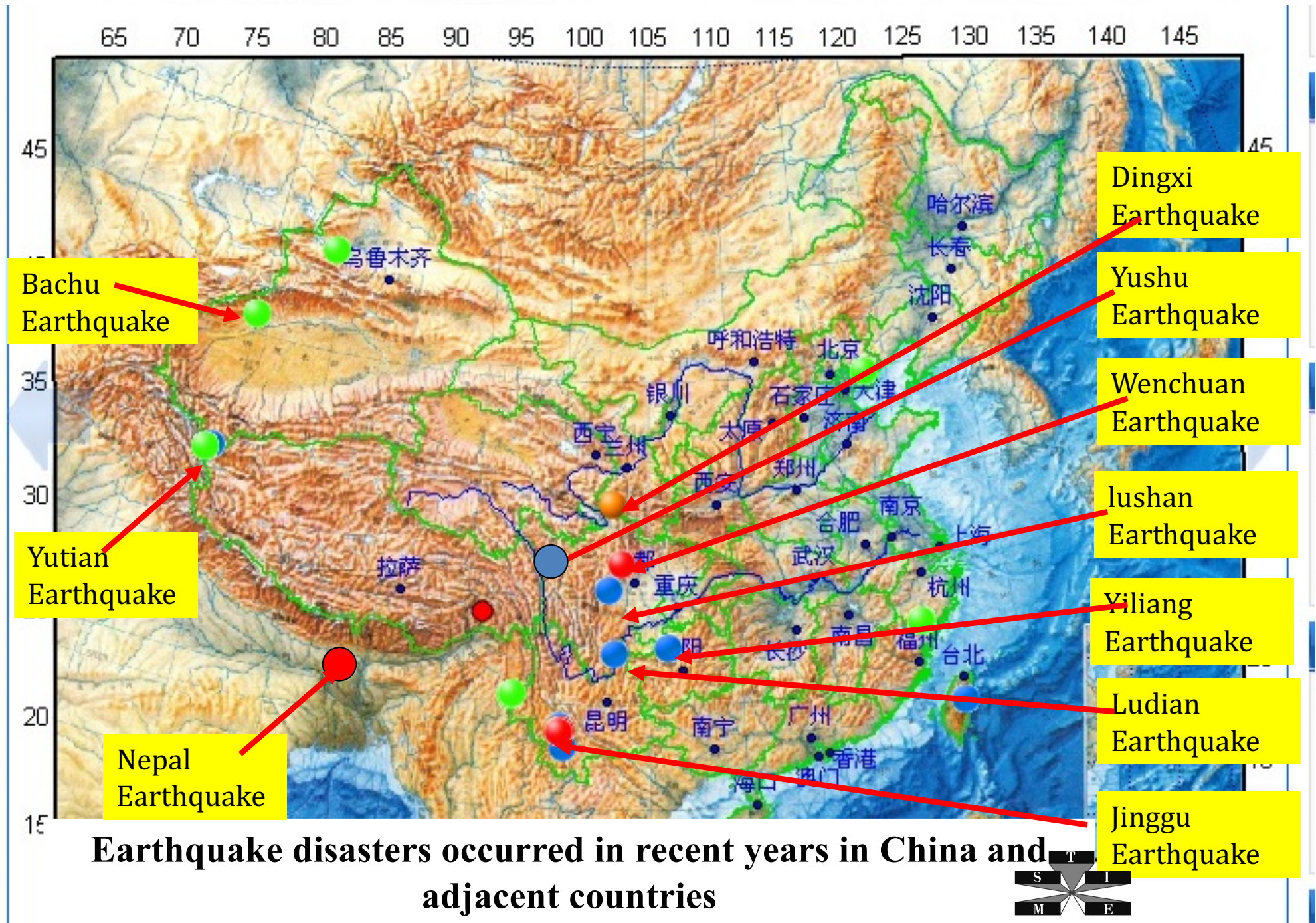


## Classification of Disasters in China





# New Emergency Management in a Resilience Era Facing Health, Climate, and Energy Challenges



## 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 objective to check the capacity in 2 different sites
- RDC and OSOCC under LEMA Commanding and Controlling Center of China

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
	Communications Specialist	Communications

Follow IEC of UNOCHA  
Secretariat of MEM





### 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 buildings of international heavy USAR,
- Capacity buildings of 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.

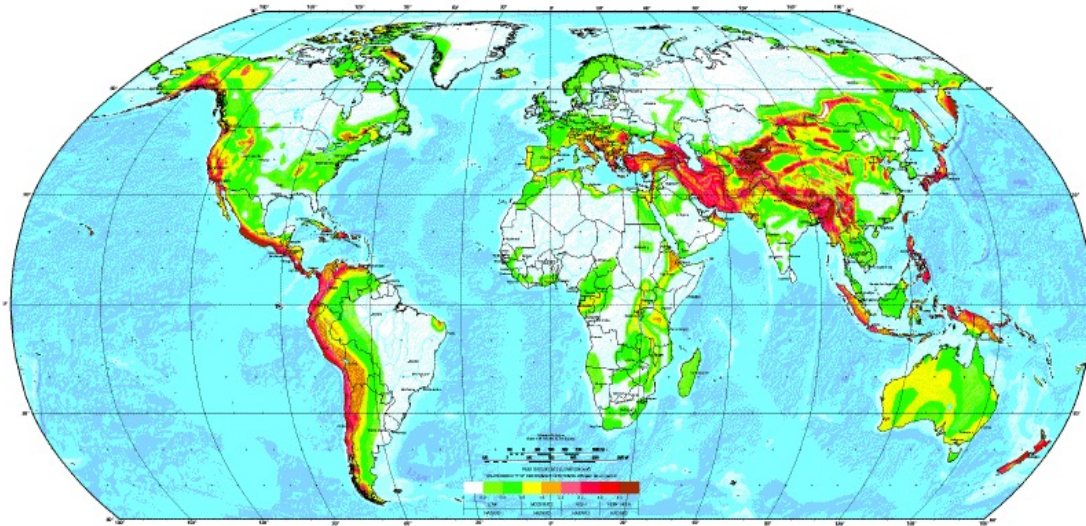


## 3. Future Developments of IRNAP and Planning in Developing Countries

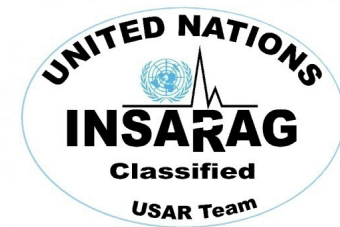
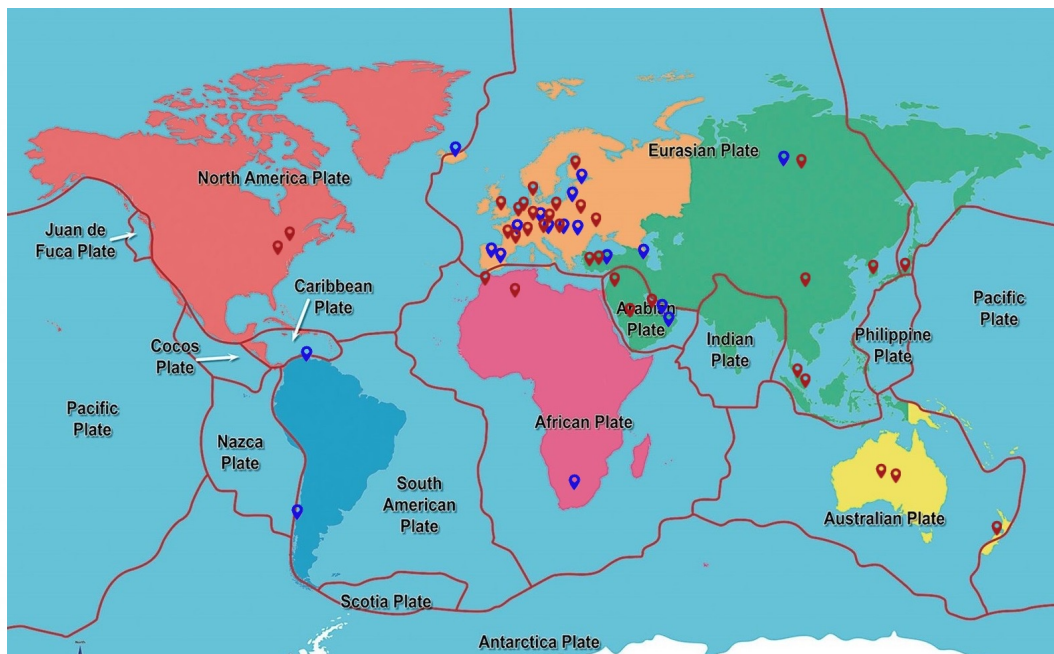


# New Emergency Management in a Resilience Era Facing Health, Climate, and Energy Challenges

## Global Seismic Risk Map



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





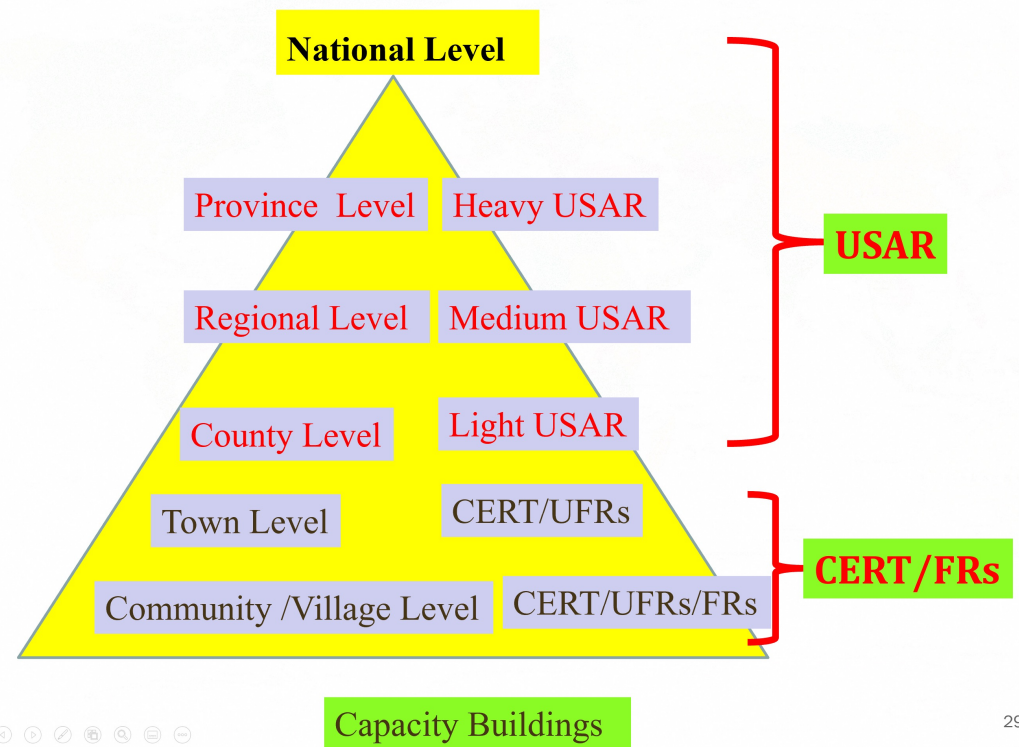
## INSARAG Recognition of NAP (IRNAP) in Developing Country

International Search and Rescue  
Advisory Group- INSARAG



Americas Region

### THE CREATION OF A NATIONAL USAR ACCREDITATION SYSTEM



## National Standard

Guideline of Capacity Buildings and Classified Certification of National Urban Search and Rescue Teams

### IRNAP Certification in China

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	Structural Engineer	Structural Assessment/Analysis
	Safety Officer	Safety/Security
Search	Technical Search Specialist	Technical Search
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	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 SAR teams.





# INSARAG Recognition of NAP (IRNAP) along Road and Belt Initiatives

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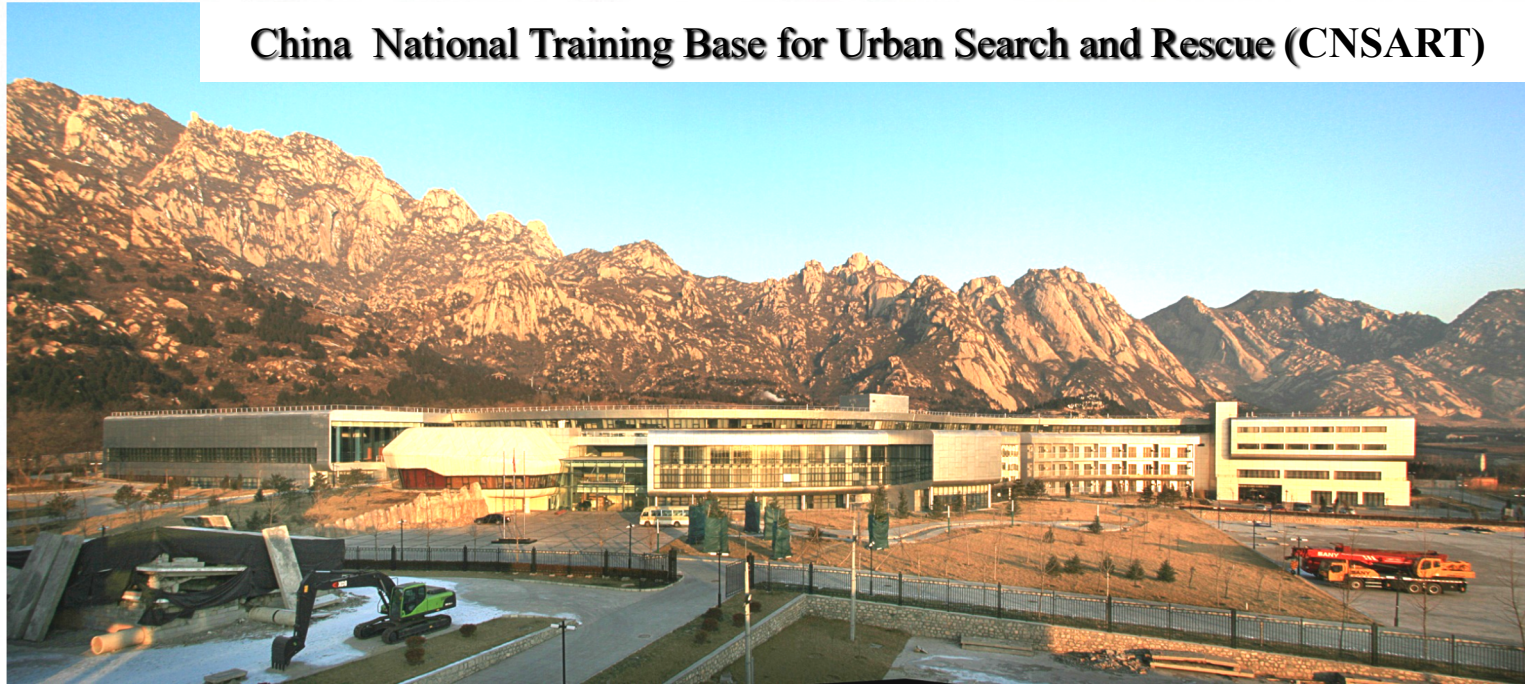
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# New Emergency Management in a Resilience Era Facing Health, Climate, and Energy Challenges

## 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 !

