



Australian Government

Australian Nuclear Science and Technology Organisation

# Enhancing the Global Emergency Preparedness and Response

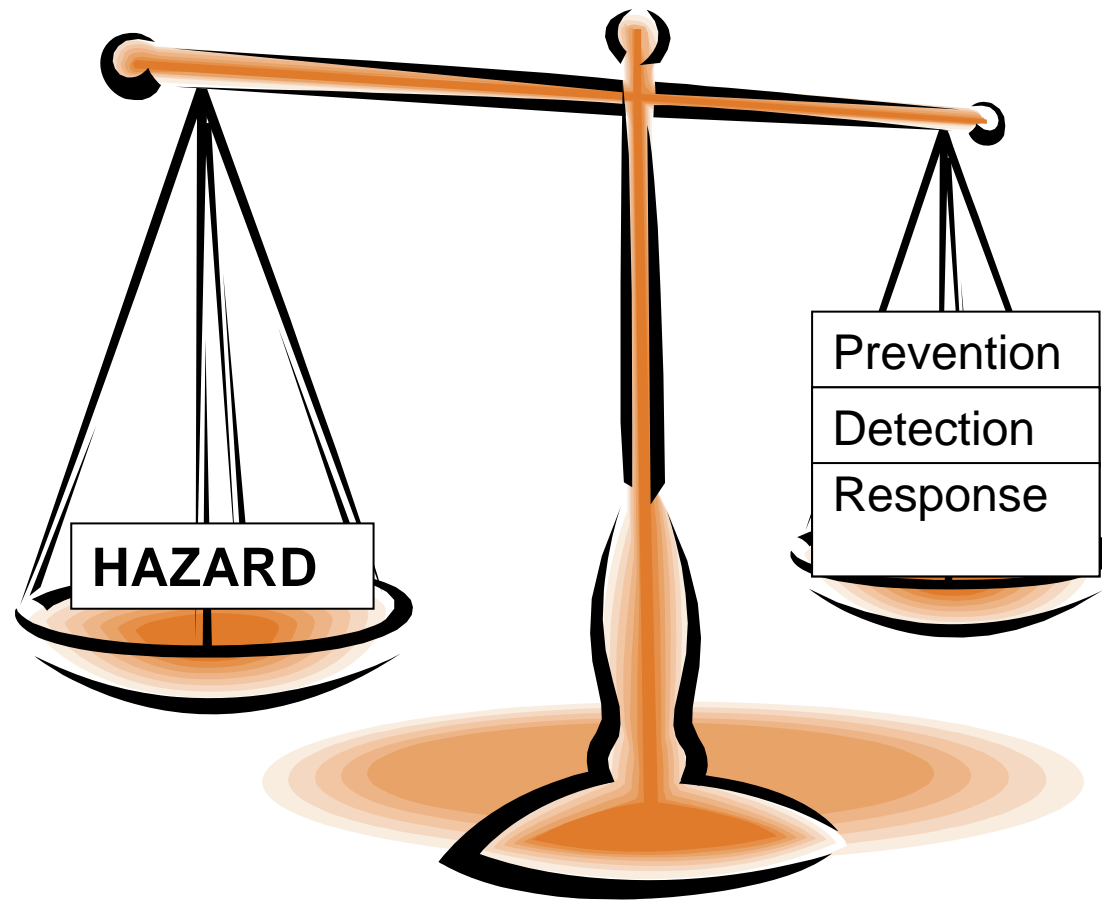
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Session 3: Global Safety and Security Regime: Building Robust Safety and Security  
Infrastructures

Global Challenges and the Development of Atomic Energy:  
The Next 25 Years

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# The hazard balance



# Outline of the presentation

- The threat environment
- The role of the IAEA
- The challenges in ensuring appropriate emergency arrangements
- Opportunities for enhancements of these arrangements
- Conclusions

# Threat environment

- Lack of political or economic stability in some countries raises concerns about control of radioactive materials
- With the current and projected demand for nuclear power, more countries will need enhanced emergency planning, preparedness and response capability to deal with the potential for a nuclear reactor accident.



# Nuclear and radiological threats can arise from

- worldwide use of radioactive material
- problems with control over radioactive sources leads to the possibility of acquisition of nuclear and radiological material
- illicit trade in nuclear technology
- Illicit trafficking – 149 events in 2006, 15 involved seizure of material from illegal groups



## Nuclear and radiological threats can arise from

- clandestine nuclear programmes
- sophisticated extremist groups
- use or threatened use of radiological dispersal devices



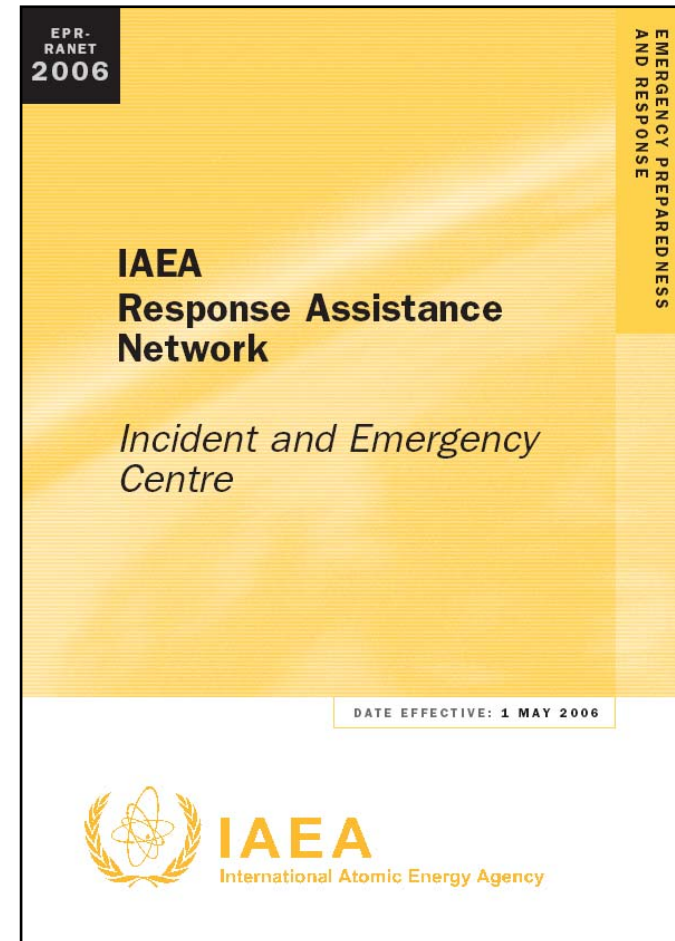
# Role of the IAEA

The IAEA works to assist countries through:

- training courses
- safety standards and guidance material
- emergency exercises
- running an incident and emergency centre (170 notifications and some 25-30 events per year)
- reviews of national systems – EPREV
- being a trusted source of information to media, governments etc

# Enhancing Mutual Assistance

- IAEA Response Assistance Network (RANET)
- Joint Radiation Emergency Plan of the International Organisations
- International Action Plan for Strengthening the International Preparedness and Response System for Nuclear and Radiological Emergencies
- IAEA Regional Projects to Strengthen Response to Radiological and Nuclear Emergencies
- National Competent Authority Consultative Group



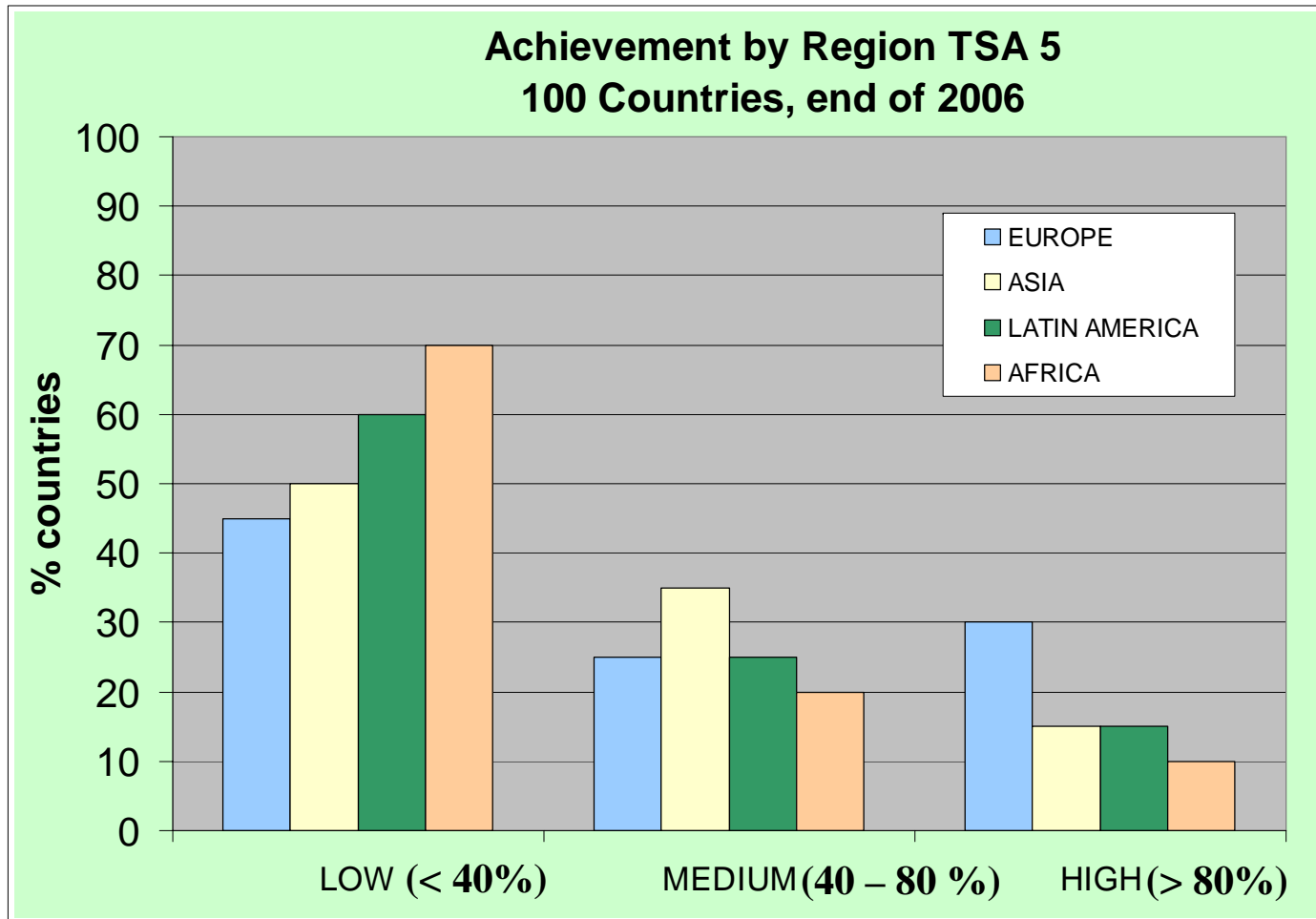


# IAEA has taken lead in international collaboration

- Early Notification Convention - 100 MSs
- Mutual Assistance Convention – 98 MSs
- Coordination between International Organisations
- Information gathering and dissemination



# But more needs to be done



# Beyond the conventions

- There is a need to:
  - Ensure greater MS commitment to GS-R-2, as the fundamental safety standard in this area
  - Increase the status of ENATOM to ensure wider implementation, currently as a guidance document it does not have high status
  - Close the gap in the Conventions, by agreeing reasonable thresholds for notifications with respect to radiological incidents accidental or malicious acts.
  - Consolidate emergency planning arrangements.

# Capacity Building - in country

- Full ability to respond to nuclear and radiological emergencies in their country
- Bi-lateral, regional or international collaboration – RANET?
- Resources and effective training



# Capacity Building - in country

- **Emergency responders must be able to make accurate radiation measurement in field conditions.**
- **Countries need to adopt and put into their planning agreed international reference levels.**
- **First responders such as fire fighters, police and ambulance personnel must be trained to a level that they can act immediately without having to wait for advice from radiation experts**
- **Each country needs to have access to trained, up-to-date, radiological assessors to advise first responders and reconfirm initial findings .**

# Communication

- There must be robust communication channels that go beyond emergency personnel and technical experts.
- Appropriate education should be provided to all levels of society prior to an event.
- Steps should be taken to increase the ability of national decision-makers, civil defence personnel and communicators to place nuclear and radiological threats in context.
- More focus on the non-technical facets of emergency response, especially decision-making by politicians and communication to the media and the public.



# Enhancing the International Action Plan



## Where to from here?

# Conclusion

- With the evolving threat, emergency planning remains a key component of response to incidents and accidents
- Currently there are enhancements needed in the implementation of these arrangements and also lack of integration of mechanisms and documents that cover the arrangements
- Opportunities exist to make better use of the resources made available by the Agency and to enhance the capability in Member States
- All Member States need to consider their commitment to, and support of, emergency arrangements, both nationally and regionally