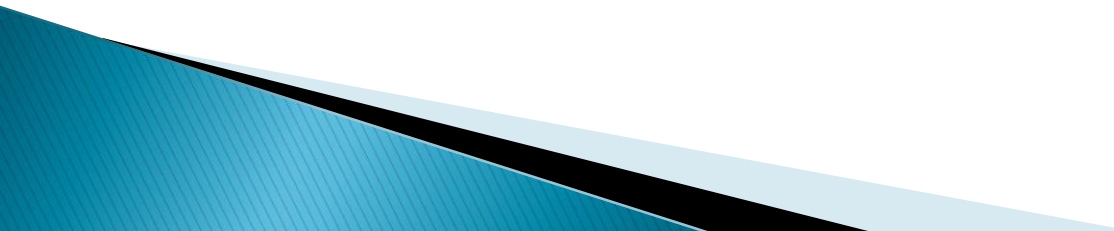


Responding to Public Fears on Transboundary Radioactive Contamination from Fukushima Daiichi Accident

Marina Mishar
Atomic Energy Licensing Board
Malaysia



Japan and Malaysian Public

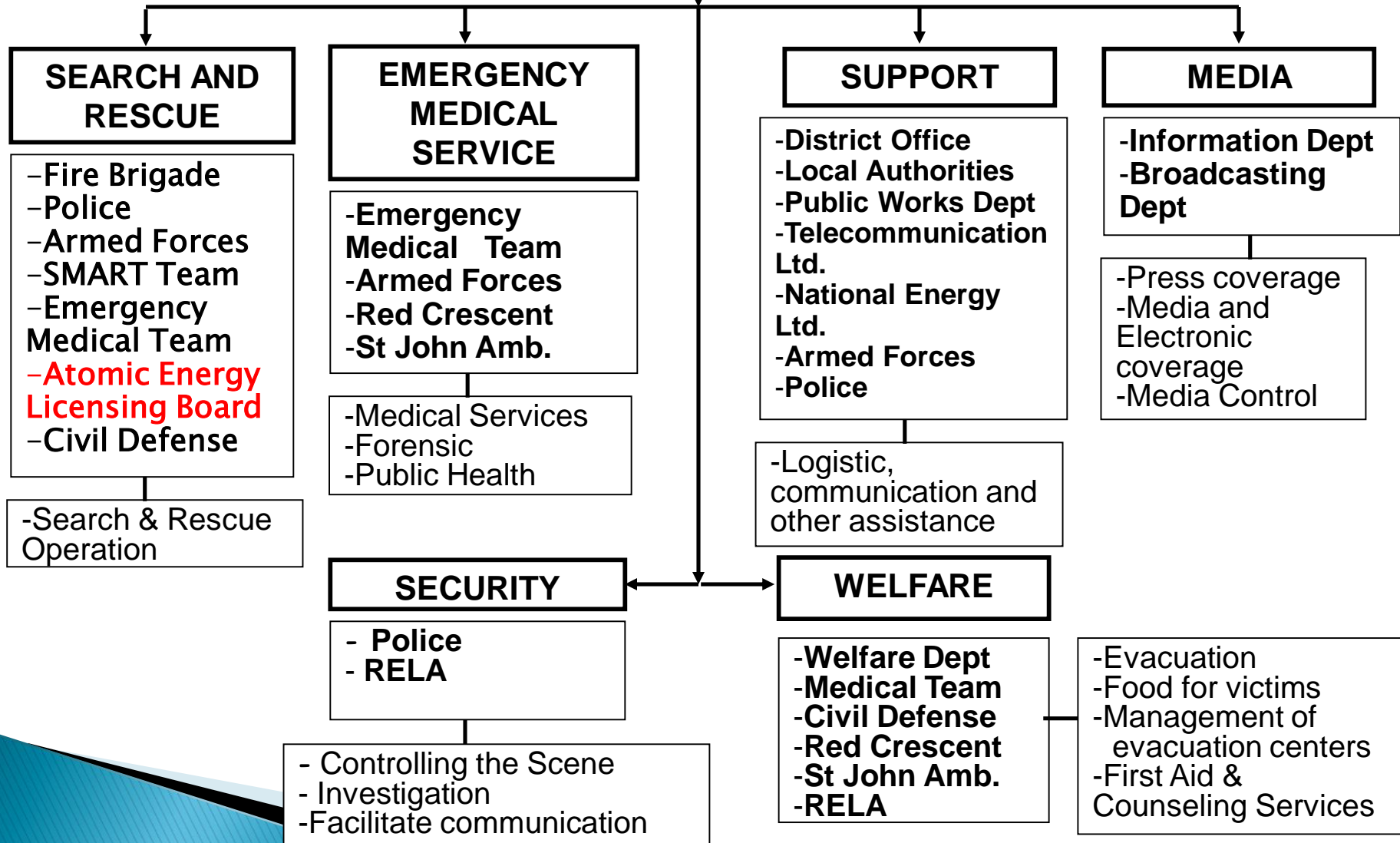
- ▶ Same region and close relation (culture, economic, education, distance)
 - ▶ Established Japanese companies in Malaysia
 - ▶ Further education program – Malaysian students
 - ▶ Japanese food products
 - ▶ Among favorite location for Malaysian tourist
- 

Immediate Reactions

- ▶ Immense number of calls received
 - Atomic Energy Licensing Board (AELB)
 - Malaysian Nuclear Agency (MNA)
- ▶ Accident on Friday afternoon
 - Saturday and Sunday – public holiday
 - Non-technical staffs – security guards, receptionist
- ▶ Request for analysis and actions to be taken
 - Only verbal assurance is not adequate

NATIONAL EMERGENCY PLAN

ON SCENE COMMAND POST COMMANDER & DEPUTY COMMANDER





ATOMIC ENERGY LICENSING BOARD

National Radiological Emergency Center (NREC)

**DATA
TRANSMISSION TO
NREC in AELB HQ**



SEAPORT



AIRPORT



BORDERS



ERMS



- Public Information
- Press release

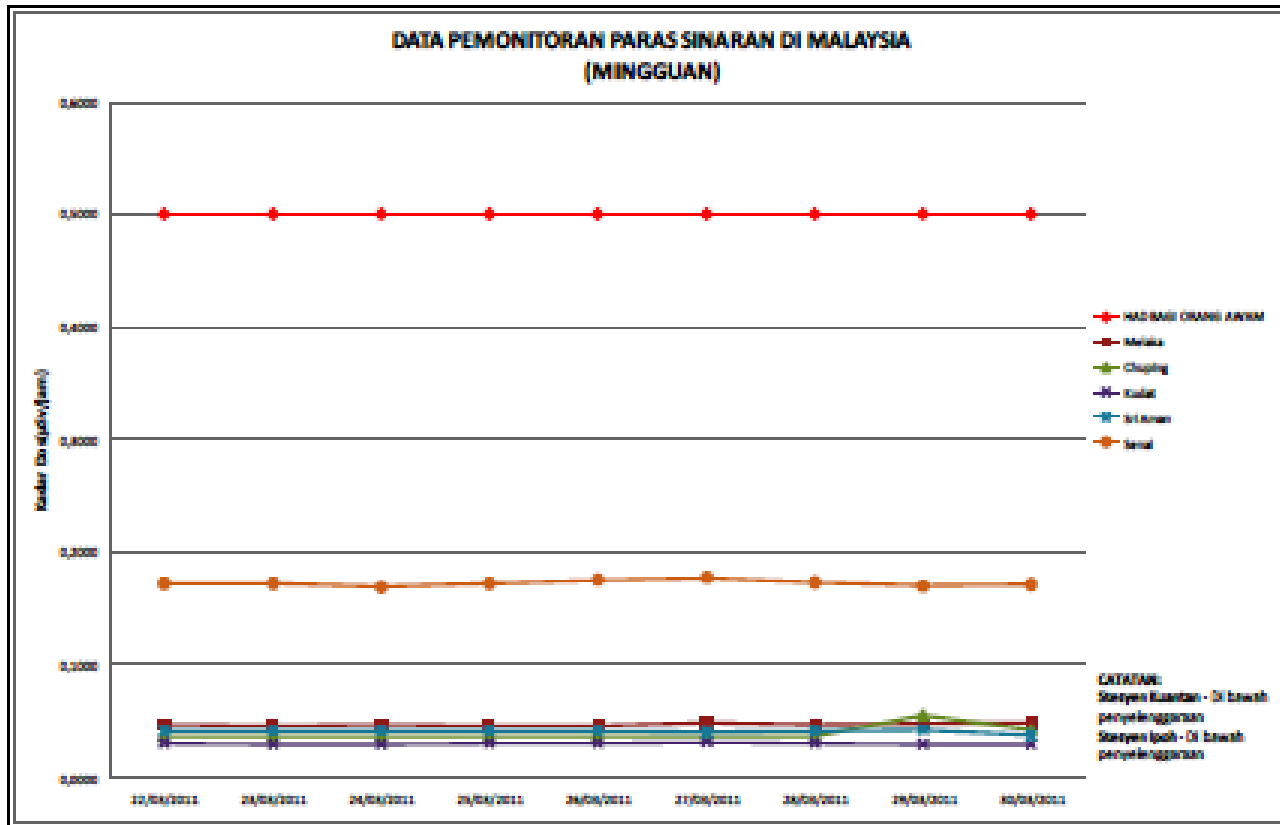


Immediate Actions Taken

- ▶ Handling queries
 - Scripted text for non-technical staffs In answering calls
 - Directives to AELB/MNA to direct queries to NREC
 - More information from official websites (AELB, MNA, MOSTI, Japan's, IAEA, MOFA)
- ▶ Activate NREC as call center with toll free number 24/7 – 2 shifts; resource from AELB and MNA
- ▶ Anticipated FAQ – uploaded at AELB, MNA, MOSTI website.
- ▶ Issue daily Press Release

Further Actions Taken

- ▶ Sharing of ERMS's weekly data on AELB's website

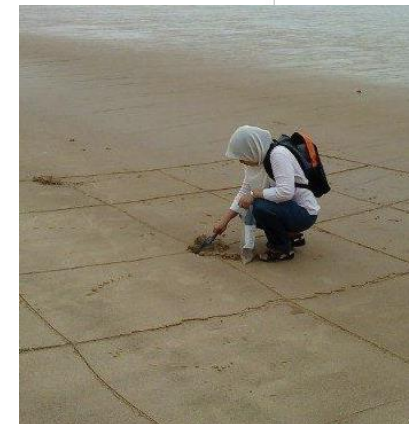


Further Actions Taken

- ▶ Offered free radioactive contamination screening
 - Offered free at NREC and Malaysian Nuclear Agency
 - Opened from 8 am to 6 pm, daily
- ▶ Issue daily Press Release – coordinated between various agencies
 - Same information and authorized press release text posted on agencies websites.
 - Additional, detailed information relevant to each agencies' responsibilities were available on each website
- ▶ Opened NREC for visits by media

Environmental Sampling : water, soil and vegetation

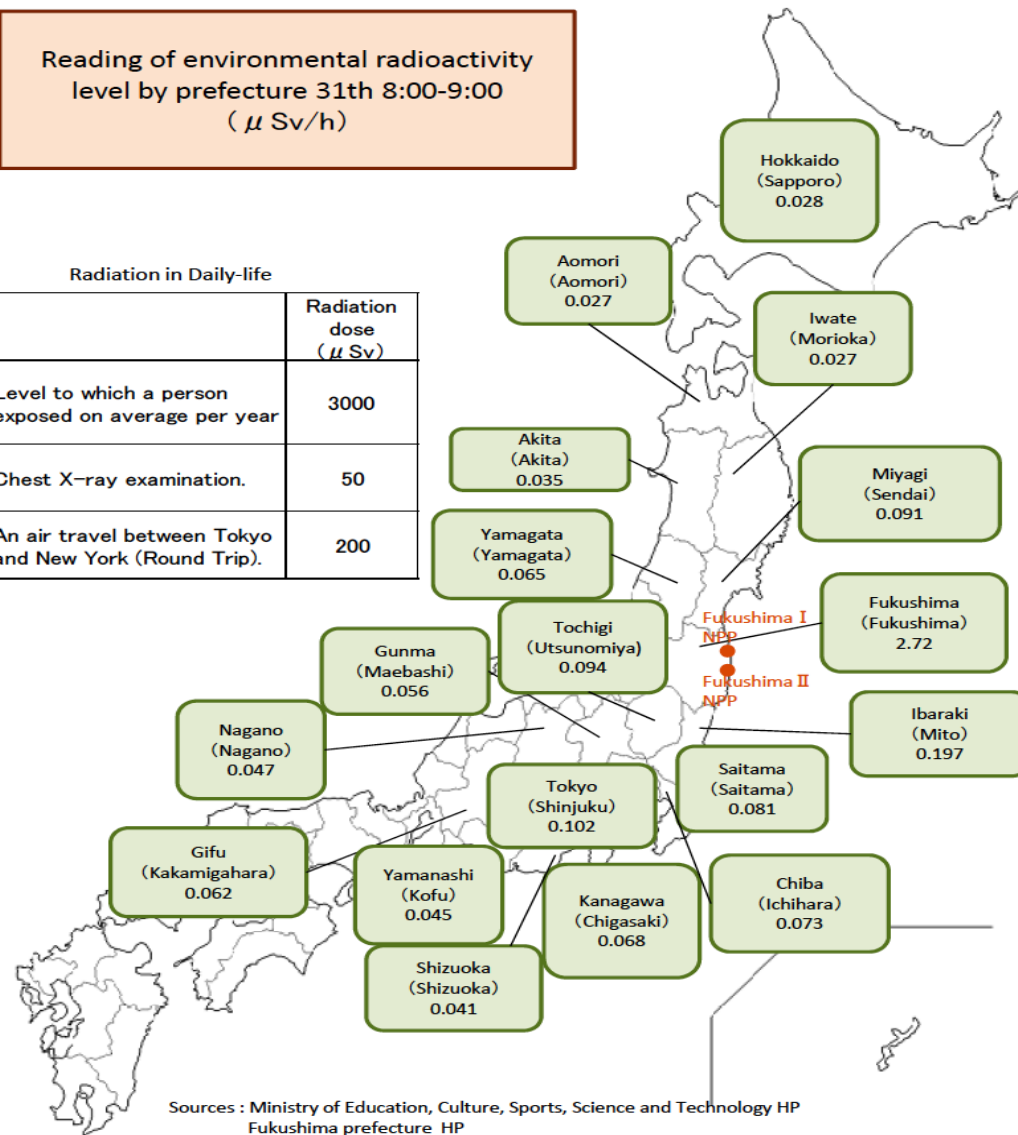
Detection of I-131 and Cs-137 contamination



MONITORING OF INFORMATION (IAEA ,NISA AND JAPANESE GOVERNMENT)

Reading of environmental radioactivity
level by prefecture 31th 8:00-9:00
($\mu\text{Sv/h}$)

Radiation in Daily-life	
	Radiation dose (μSv)
Level to which a person exposed on average per year	3000
Chest X-ray examination.	50
An air travel between Tokyo and New York (Round Trip).	200



Gradual Reduction of Screening Activities



13.3.11

- Screening of passenger and crew in front of aircraft door



7.4.11

- Screening of passenger and crew at exit way in airport building

11.5.11

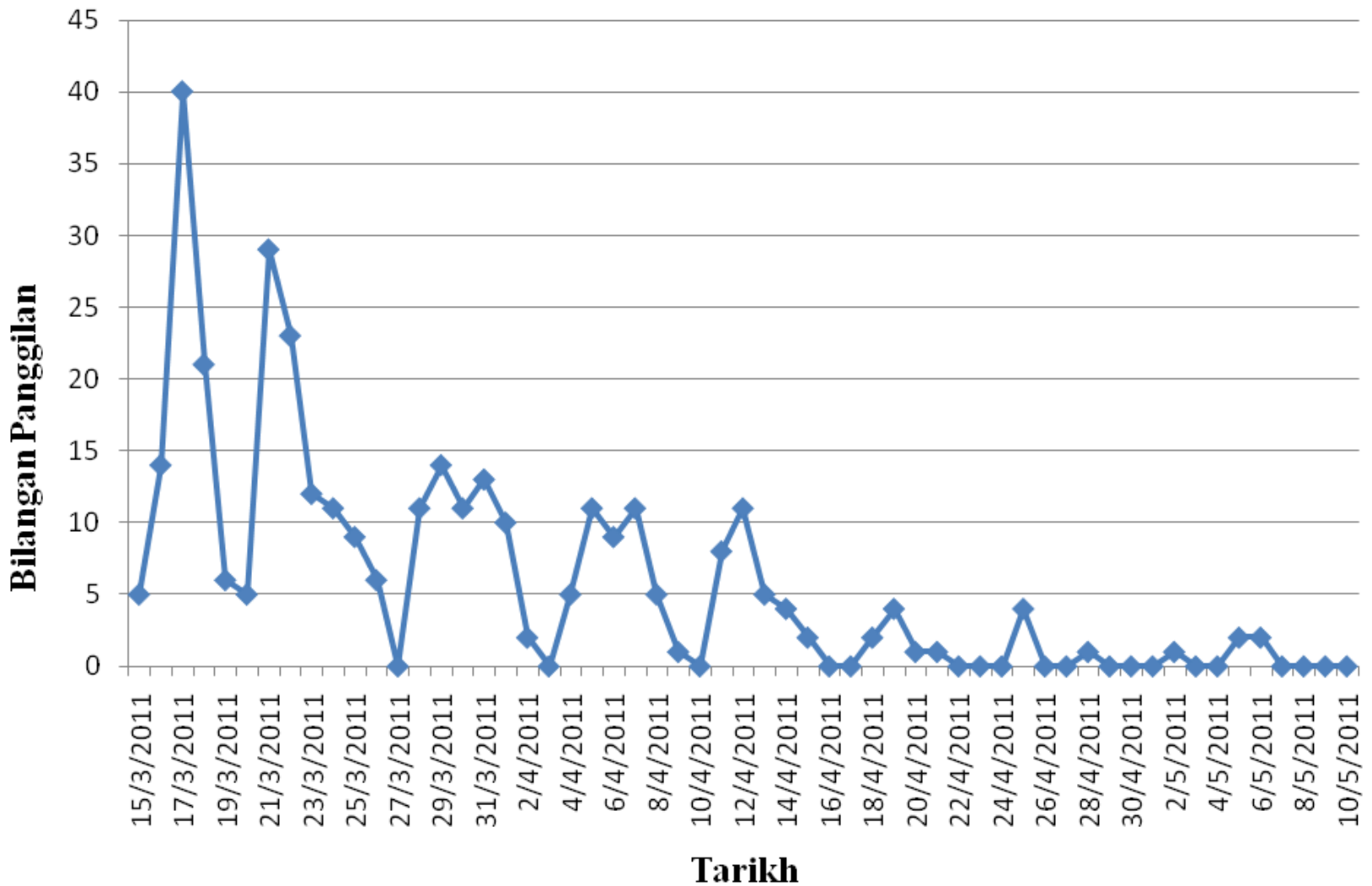
- Proposed: Screening service at NREC and Malaysian Nuclear Agency.

Summary of Actions Taken

- ▶ **353** queries handled at NREC
- ▶ **40** individuals came for free screening at AELB/MNA
- ▶ **412** screening at airports
- ▶ **12/5/3** environmental sampling locations (Mac –Mei /Jun – Ogos/ Sept)

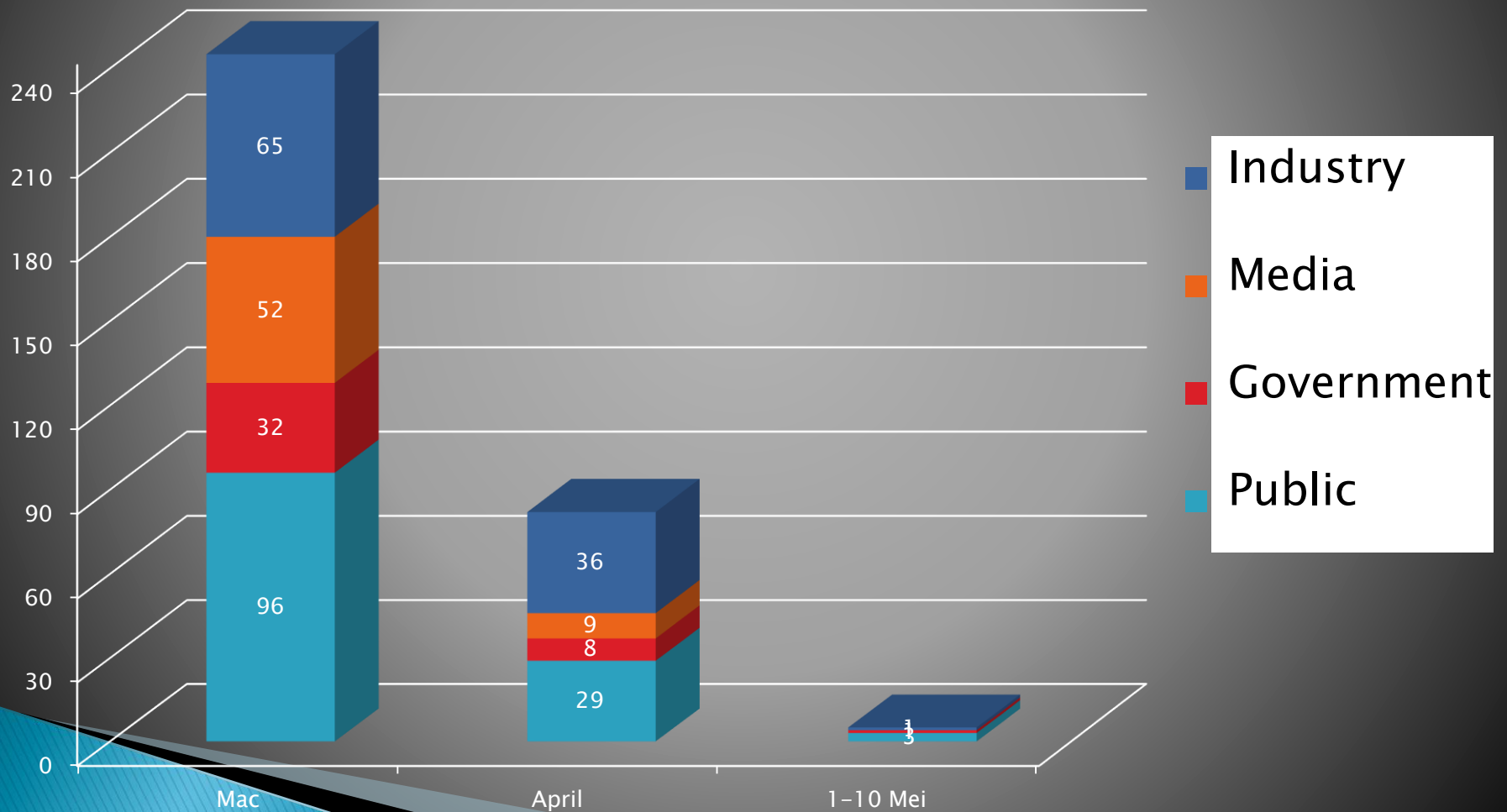
- ▶ **42 press statements**
- ▶ 9 cabinet papers
- ▶ **2** press conference including at NREC
- ▶ 4 seminars to industries

Analysis of Public Concerns



(Recorded) Calls Received By NREC

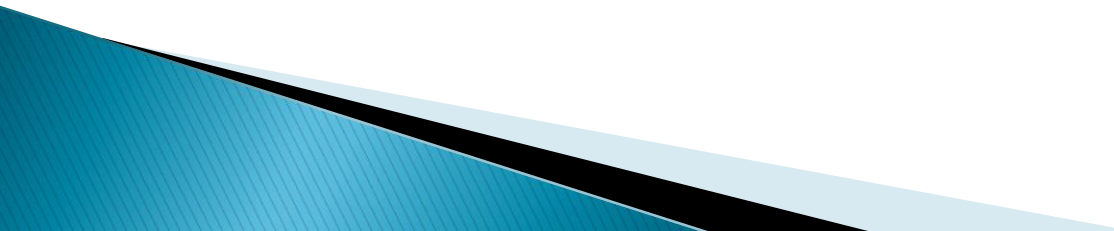
Categories of Callers



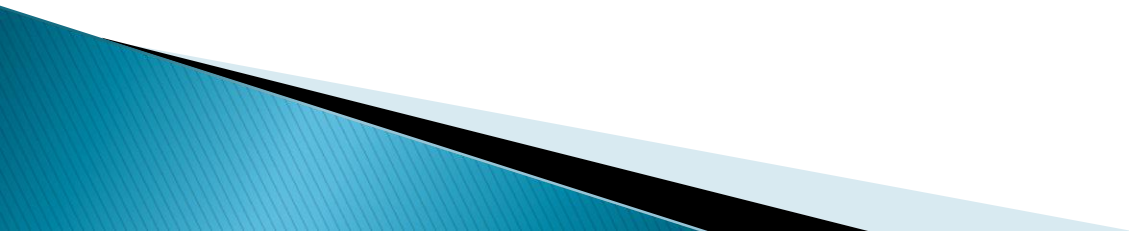
Most Asked Questions Recorded

- ▶ Situation in Japan – specifically radiation level
- ▶ Screening and monitoring carried out by AELB
- ▶ Confirmation on screening at Malaysian seaports
- ▶ Safety of food products imported from Japan
- ▶ Confirmation of screening at Malaysian airports
- ▶ Shift of concerns :
 - initial month – more calls from public (39%)
 - Second month – more calls from industry (44%)

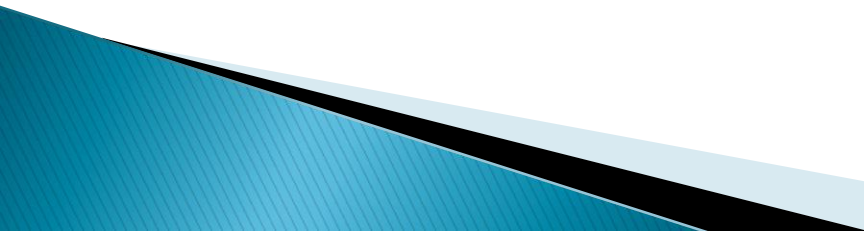
Assurance of the Public, Media, Industry

- ▶ Addressing concerns immediately – situation in Japan, impact to Malaysia and Malaysians
 - ▶ Need to see actions being taken – sometimes actions taken are not in line with threat level
 - ▶ Comparisons with what other countries are doing
- 

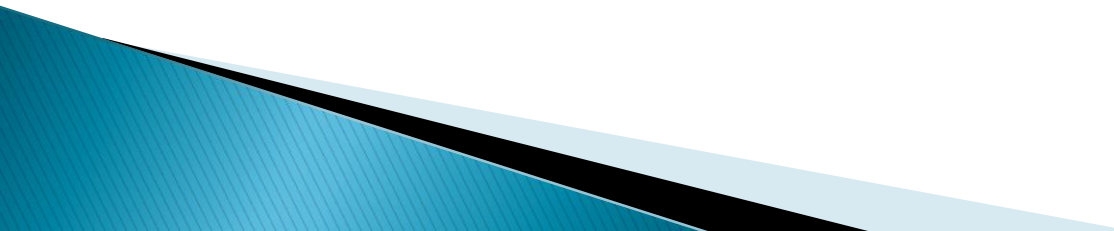
Lessons Learned and Way Forward



Lessons Learned

- ▶ Evaluation of AELB and Malaysia's radiological and nuclear emergency preparedness.
 - ▶ Good crisis management will increase public confidence towards AELB as the nuclear regulatory body and toward nuclear power program in Malaysia
 - ▶ Evaluation of the technical knowledge, skill and expertise in Malaysia i.e. AELB, MNA and other agencies
 - ▶ Evaluation of technical equipment capability and whether their specifications are able to address the required functions
- 

Methodologies of Evaluation

- ▶ Post Mortem – discussion among responders
 - ▶ Surveys to public and responders
 - ▶ Gap Analysis of NREC (Ohio Emergency Operation Center Grant Funding Mandatory Criteria – standard criteria for a Emergency Response Center
- 

Good Practices Identified

- ▶ Coordinated information release – . Consistent, factual information by various authorities, national and internationally reassured and comforted the public and industry;
- ▶ Various avenues for information dissemination ensured information can be obtained and received by all that required them;
- ▶ Close cooperation with the Japanese Embassy in Malaysia in providing latest information
- ▶ Timely actions on information dissemination including anticipated questions by the public and media inc rumor control
- ▶ Evidence of the NREC, its facilities and equipment – have the means and capability to monitor and protect its people, environment and property

Items for Improvements

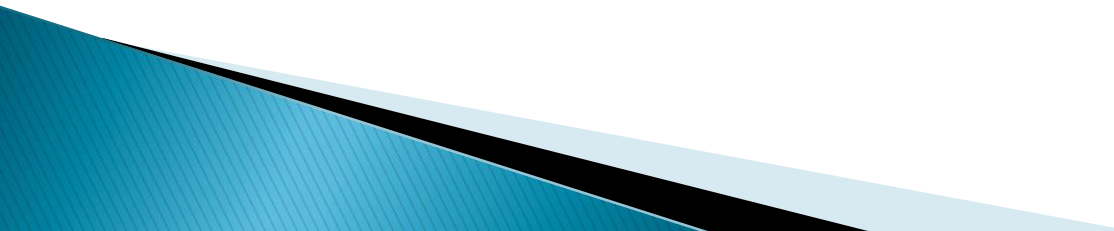
Pemonitoran & Persampelan		Project Completed By:												Responsibility	
Divang															
○ ○ ○ ○ ○	b) Menetapkan Prosedur Kerja	●	●	○	○	○	○	○	○						SPKS
○ ○	c) Menetapkan Pelan Tindakan Radiologi 5 Peranan MN	●	○	○	○	○	○	○	○						SPKS
○ ○ ○ ○ ○	d) Persijilan Sistem Kualiti												○ → 2013	SPKS	
	2. Peningkatan Keupayaan Bilik Operasi Rawatan														
○ ○	a) Susunan Semula Bilik Operasi	●	●											SPKS	
○ ○	b) Petugas Sepenuh Masa Waktu Pejabat	●												SPKSIDT	
○ ○	c) Melengkapkan Sistem Teleconferencing			●	○	○	○	○	○					ICT	
○ ○	d) Pembelian Kemudahan: Mesin Desak, Komputer dll			●	○	○	○	○	○					ICT	
○ ○	e) Sistem Wireless - ditetapkan													SPKS	
	3. Pembangunan Keupayaan Petugas Keemasan														
○ ○ ○ ○ ○	a) Pembangunan Kompetensi Asas	○	○	○	○	○	○	○	○	○	○	○	○	DKS	
○ ○ ○ ○ ○	b) Mengenalpasti jenis latihan diperlukan	●	●	○	○	○	○	○	○					SPKS	
○ ○ ○ ○ ○	c) Pembangunan Kit Maklumat Asas Petugas Bilik Operasi									○	○	○	○	SPKS	
○ ○ ○ ○ ○	d) Pelaksanaan Latihan: Klinik Peralihan/Latihan (Mak-C)	●			○	○	○	○						SPKS	
○ ○ ○ ○ ○	e) Tamilat "Code of Conduct" Petugas Keemasan									○	○	○	○	SPKS	
○ ○ ○ ○ ○	f) Klusma Penambahan Petugas dan Agensi Sokongan														
	Agensi: Makleat Malaysia									○	○	○	○	SPKS	
	Universiti (UKMUSMUTMUNS)									○	○	○	○	SPKS	
○ ○ ○ ○ ○	g) Analisa Keupayaan Petugas Bilik Rawatan dll									○	○	○	○		
	4. Peningkatan Keupayaan Peralatan Teknikal														
○ ○ ○ ○ ○	a) Menaktakan ERMS - Perisian	●	○	○	○	○	○	○	○					SPKS	
○ ○ ○ ○ ○	b) Menaktakan RPN - Peralihan Perisian Prosedur TD	●	○	○	○	○	○	○	○	○	○	○	○	SPKS	
○ ○ ○ ○ ○	c) Pembelian Mobile Lab	●	●	○	○	○	○	○	○					SPKS	
○ ○ ○ ○ ○	d) Syor Pembelian RPN/ERMS Tambahan (2013-2014)									○	○	○	○	SPKS	
○ ○ ○ ○ ○	e) Melengkapkan Casuarina	●	●	○	○	○	○	○	○					SPKS/SakTel	
○ ○ ○ ○ ○	f) Klusma Areal Dengan Agensi Sokongan									○	○	○	○	DKS/SPKS	
○ ○ ○ ○ ○	g) Klusma KDRP/Port Authority PTP									○	○	○	○	DKS/SPKS	
	5. Makanan Asam/Mejika														
○ ○ ○ ○ ○	a) Laman Web Kecemasan Khas	●	●	○	○	○	○	○	○					SPKS	
○ ○ ○ ○ ○	b) Laman Web PDRM/Manajemen	●	●	○	○	○	○	○	○					SPKS	

Berdasarkan komen semasa PM

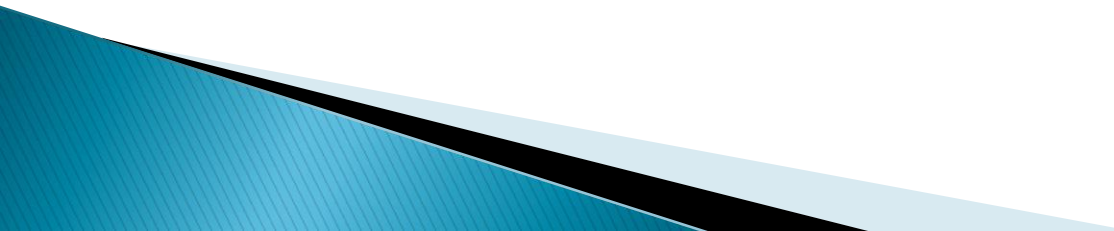
Analisis Tugas: Pelan Pembn Kompetensi

Proposal Rolling Plan

Pertinent Areas For Improvements

- ▶ Handling media queries
 - ▶ Preparation of report especially on what happened at the nuclear power plants
 - ▶ Knowledge and capabilities of responders
 - ▶ Technological equipment performance
- 

Conclusions

- ▶ No radiological impact to Malaysia detection so far
 - ▶ A valuable experience in handling public queries and carrying out screening, monitoring and sampling activities during emergency
 - ▶ Lessons learned and improvements area identified will assist in enhancing Malaysia's capability in ERP
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TERIMA KASIH

Thank you.