



Disaster Communications in Lao P.D.R

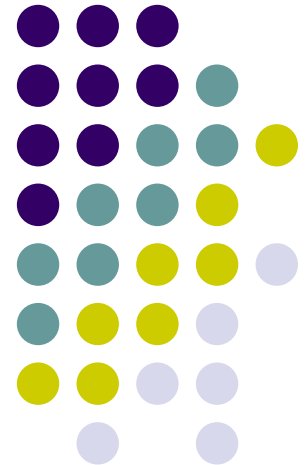
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Deputy Director, Spectrum Management Division

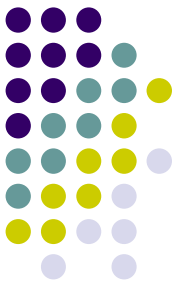
Department of Posts and Telecommunications

Ministry of Communications Transports Posts & Construction

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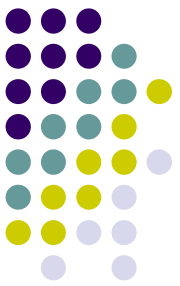


**ITU/ESCAP Disaster Communications Workshop, 12-15 December 2006
Bangkok, Thailand**



Outlines:

1. **Country profile**
2. **Disaster threats in a country**
3. **National agencies dealing with DC/DM**
 1. **Department of Posts & Telecoms**
 2. **Department of Roads**
 3. **Department of Meteorology and Hydrology**
 4. **National Disaster Management Office**
4. **Strategies and Initiatives**
5. **Challenges and areas of assistance required**

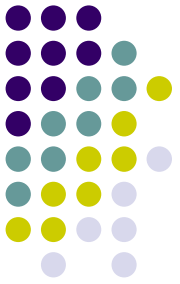


1. Country Profile

- **Name of a Country: Lao People's Democratic Republic**
- **Population: 5,6 millions (2005)**
(80% live in rural areas)
- **Area: 236,800 Km²**
- **Provinces: 17**
- **Districts: 142**
- **Rivers & Streams: 18 (including Mekong river)**
- **GDP: US\$ 350 (2005)**
- **Tele-density: 18 per 100 inhabitants (2006)**

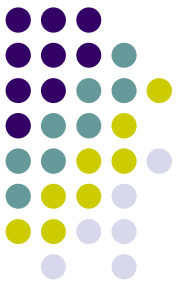


2. Disaster Threats in a country



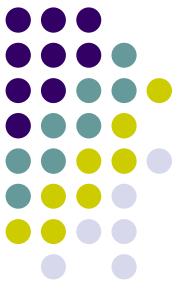
- **Main Disasters:**
 - Floods
 - Mountainous flash flood
 - Soil erosion

3. National Agencies dealing with DC/DM



1. Department of Posts & Telecoms, MCTPC – Radio Spectrum Management Division
2. Department of Roads, MCTPC - Waterway Administration Division (WAD)
3. Department of Meteorology & Hydrology – Ministry of Agriculture & Forestry
4. National Disaster Management Office (NDMO) – Ministry of Labour & Social Welfare

3.1 Department of Posts & Telecommunications



- Responsible for frequency allocations and frequency assignments to radio communication services including PPDR
- Key regulatory framework that has been taken into consideration:
 - National Table of Frequency allocations and assignments
 - Resolution 646 (WRC-03) - PPDR
 - ITU-R M.1637 (2003) – Global cross-border circulation of radiocommunication equipment in emergency & disaster relief situations
 - Frequency harmonization for PPDR (406.1-430 MHz, 440-470 MHz, 806-824/851-869 MHz, 4940-4990 MHz, 5850-5925 MHz)
- A frequency band 4940 – 4990 MHz has been endorsed for PPDR applications

3.1.1 Telecommunications infrastructure and Statistics



ETL Optical Fiber Existing & New

Statistics of Telecom Services in Lao PDR

(By the Department of Post and Telecommunication)

Updated on 23/10/2006

Name and Number of operators:

1. Enterprise's Telecommunication Lao (ETL)

As Of September 2006

[Fix telephone](#)

[Mobile Phone](#)

[Internet](#)

[Traffic](#)

[Market share](#)

2. Lao Telecommunication Company(LTC)

[Fix telephone](#)

[Mobile Phone](#)

[Internet](#)

[Traffic](#)

[Market share](#)

3 Lao Asia Telecom State Enterprise (LAT)

[Fix telephone](#)

[Mobile Phone](#)

[Market share](#)

[Traffic](#)

4. MilliCom Lao Limited Company (MLL)

[Mobile Phone](#)

[Market share](#)

[Traffic](#)

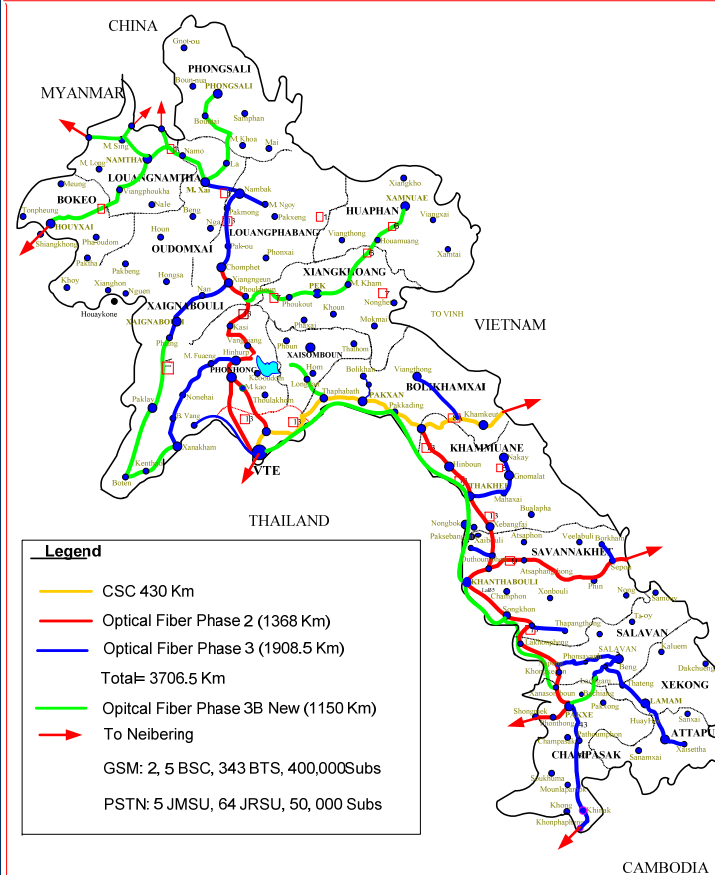
[Internet](#) N.A

Summary the total capacity lines and total subscriber lines in used

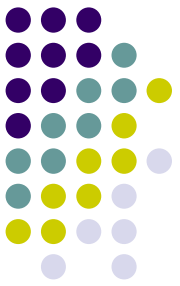
Categories	Capacity lines	Using Lines
Fix Lines	145,857	91,235
Mobile	1,401,419	901,637
CDMA /WLL	50,000	17,862
Total	1,597,276	1,010,734

Internet	Capacity Lines	Using Lines
- Dial up	40,800	3,716
- ADSL	1,038	512
- IP Star	100	49
- Lease Line	64kbps-2Mbps	33
- HIL	50	24

Tele density per 100 Inhabitants : 18
 Digital Switching: 100 %
 Digital Transmission : 100%

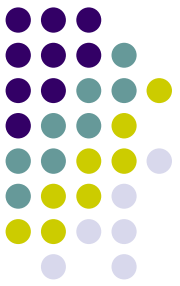


3.1.2 Telecommunications infrastructure & Statistics (Cont'd)



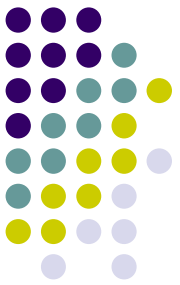
- Fibre optic networks are expanding and covering 15 provinces
- Mobile Telephony has been increasing rapidly
- More than 90% of districts have access to telecommunication services nation-wide
- Telephone density reaches 18% in 2006

3.2. Waterway Administration Division (WAD)



- There are 53 hydrologic and 18 rainfall stations under WAD's responsibility
- WAD collects data from provinces by radio-transceiver, telephone, fax, email, telemetry system
- WAD disseminates data to DMH and MRC by means of telephone, fax, email, telemetry system
- The flood forecasts of the Mekong mainstream station are updated every day during flood season (<http://ffw.mrcmekong.org/overview.htm>)
- WAD distributes forecast data updated by MRC to provincial offices and relevant agencies

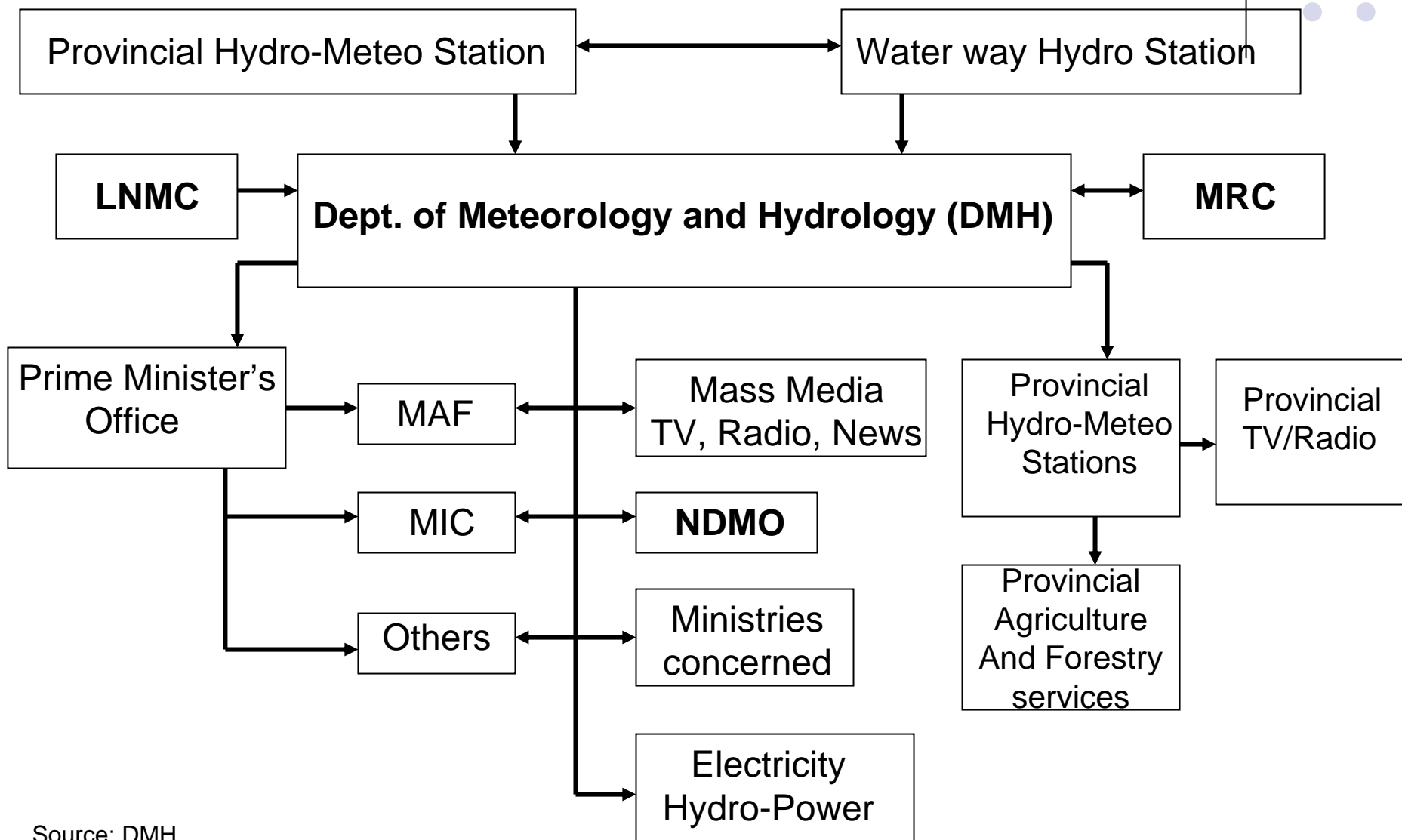
3.3. Department of Meteorology and Hydrology (DMH)



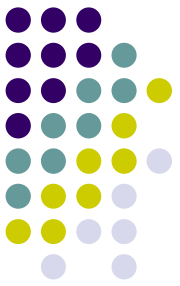
- 53 Meteorological networks and stations nation-wide
- 33 stations are using transceiver radio VHF SSB
- 20 stations are PSTN (fax and telephone)
- A C-band Doppler weather radar and HRIT satellite receiving equipment via MTSAT located in Vientiane
- Dedicated telephone line is used to connect to Global Telecom Systems for regional and global data exchange



3.3.1 Organization chart

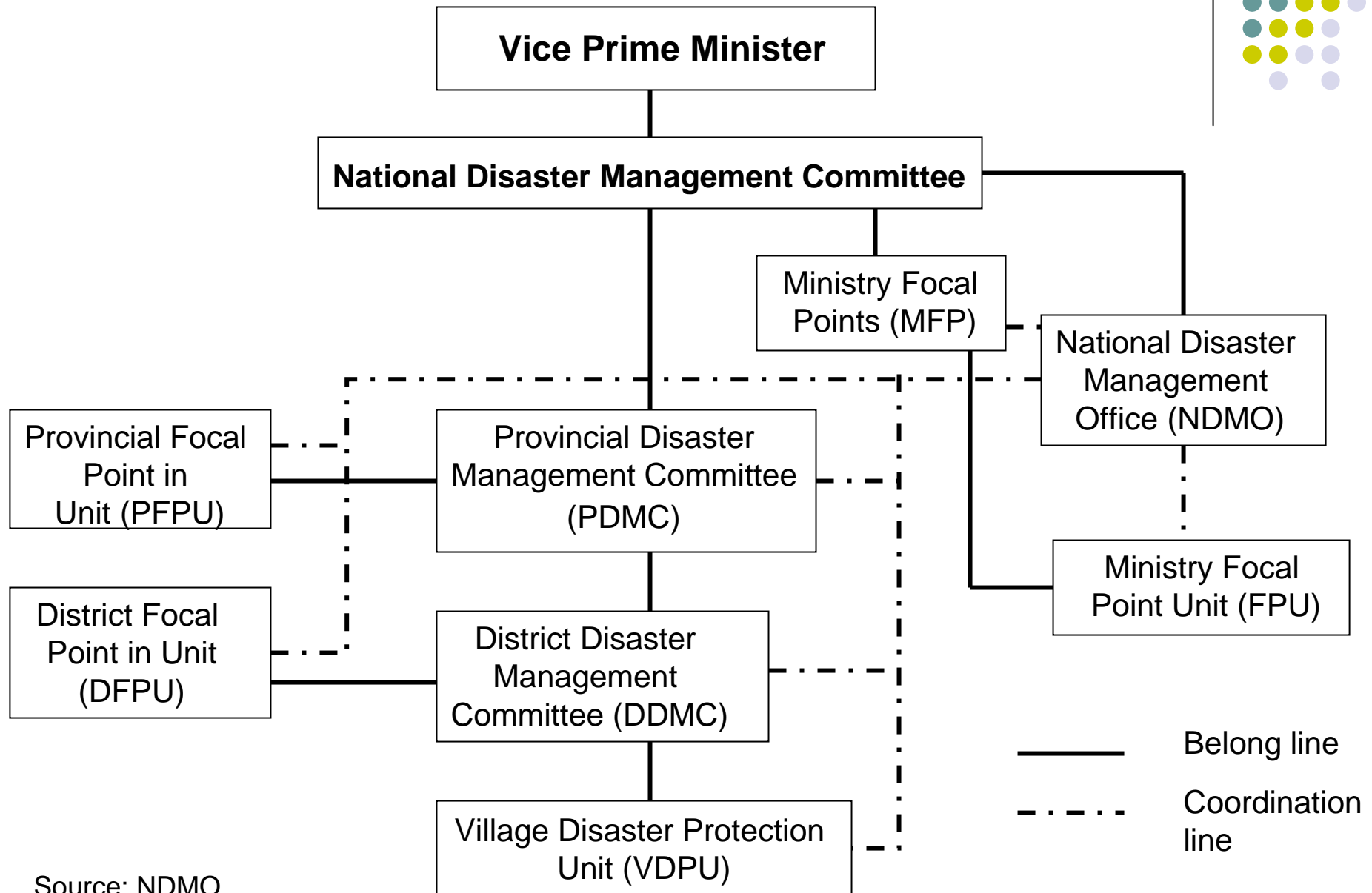
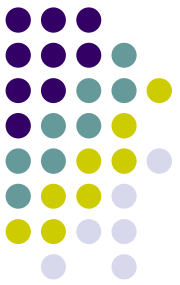


3.4. National Disaster Management Office (NDMO)

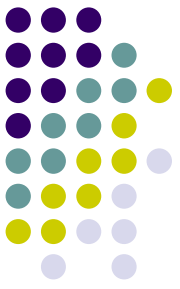


- NDMO is playing a vital role in DM
- 91 offices are located at district level
- 100 representatives are present at village level
- Youth, Woman and Trade Unions are actively participating in DM

3.4.1 Organization Chart



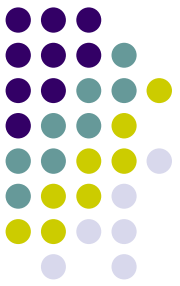
4. Strategies and initiatives



- **Work progress**

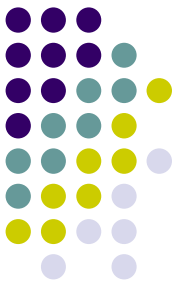
- The Government has recognized the importance of DM
- DPT is supporting and approving APT & ITU recommendations regarding PPDR discussing in various regional and international forum and conferences subject to national policy and in accordance with NTFA
- 2 decrees have been approved and signed by PM and Minister of Labour and Social Welfare

4.1 Strategies and initiatives (Cont'd)



- There is a national strategic plan for DM in Lao P.D.R from 2003 – 2020
- This plan is an integration part of national policy on economy growth and poverty eradication and graduation from LDC status by the year 2020
- Two provinces namely Savannakhet and Khammouan have already set and implemented their own strategies according to the national strategic plan for DM
- Most meteorological stations are at district level
- Most NDMO representatives are at district and village levels

5. Challenges and areas of assistance needed



- **Challenges:**

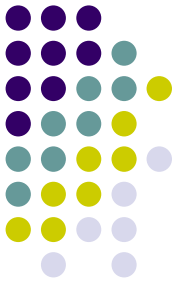
- No clear policy on the use of frequency bands identified for PPDR in ITU-R M. 1637
- No law and regulation on PPDR, especially with respect to *considering a) and b)* of Resolution 646 (WRC-03)
- Harmonization of frequency bands for PPDR
- Lack of skilled personnel in representative offices at district and village levels
- Lack of radio and telecommunications equipment e.g. computer, Internet ect.
- Budget constraints to implement the government's policy and guidelines

5.1 Challenges and areas of assistance needed (Cont'd)



- **Assistance:**

- Consultancy on PPDR issues
- Capacity-building at different levels
- Regulatory frameworks for PPDR
- Budget assistance to raise public awareness and other activities necessary
- Modern early warning systems/equipment



Thank you!