

**JMA/WMO WORKSHOP ON QUALITY MANAGEMENT IN
SURFACE, CLIMATE AND UPPER-AIR OBSERVATIONS
IN RA II (ASIA)**

Tokyo, Japan , 27-30 July 2010

**Status of Meteorological Network, Observations
and Data Management
in Lao P D R**

by Singthong PATHOUMMADY

Department of Meteorology and Hydrology

Outline

- **Background**
- **Meteorological Network &
Instrument status**
- **Observations & Relevant Constraints**
- **Data Flow to Users and Archiving**
- **Future Plan**

➤ **Background :**

Department of Meteorology and Hydrology (DMH)

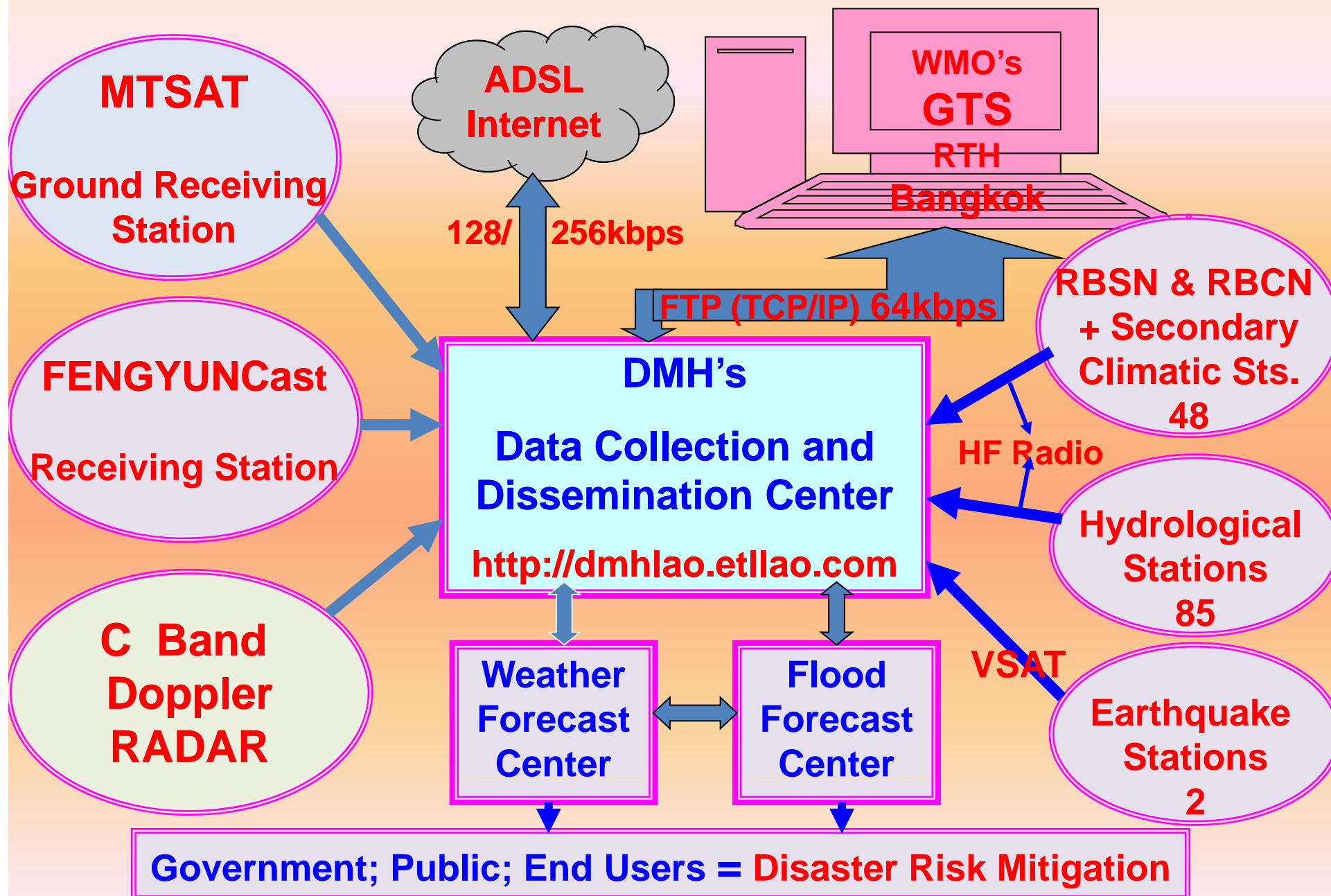


DMH Lao PDR, established in 1950 and registered as a member of WMO in 1955, It is a National Department, currently under the Water Resources and Environment Administration.

The department is organized into six divisions plus a number of provincial hydro-meteorological stations:

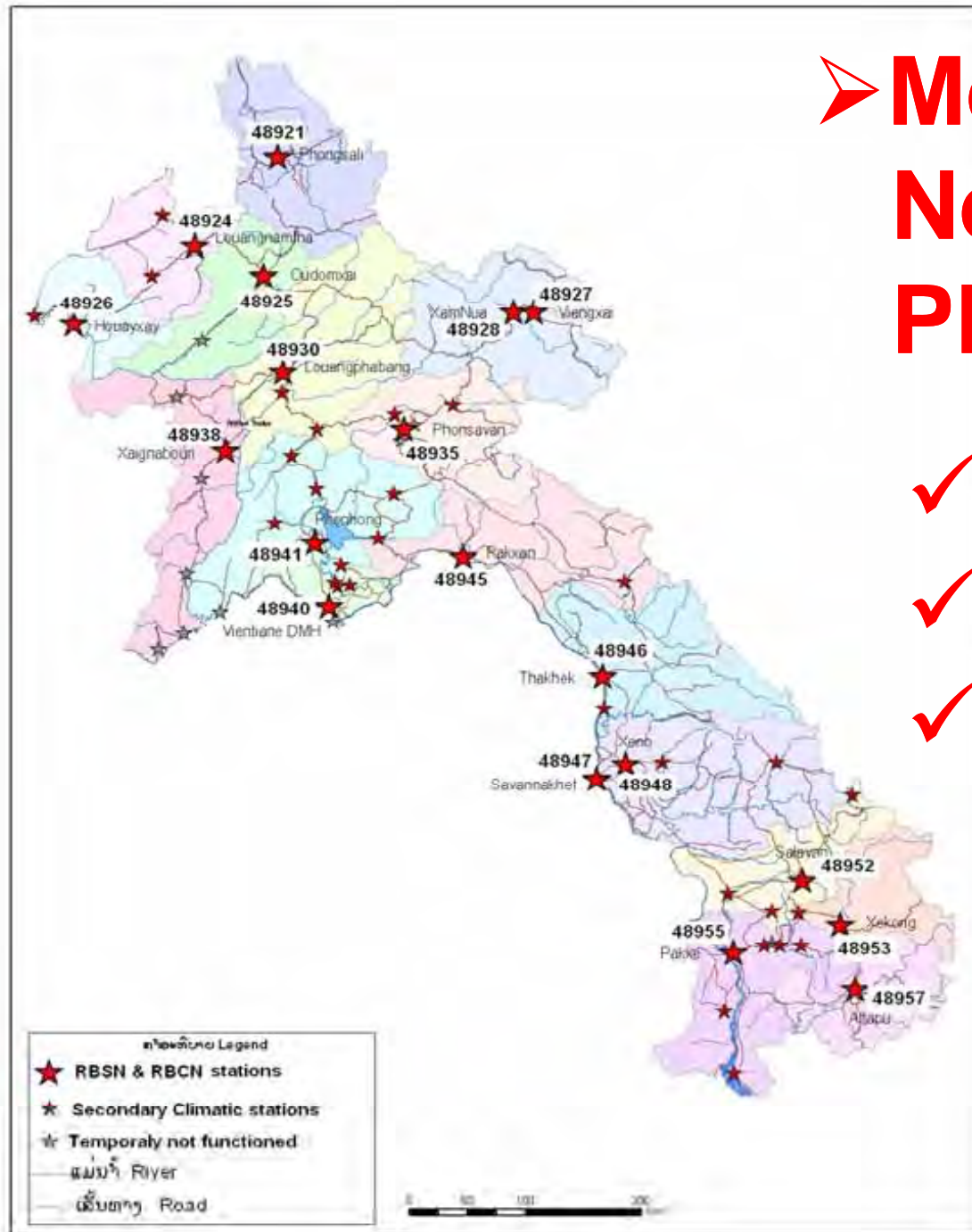
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|--|---|
| (1) Administration Division | (2) Planning and Cooperation Division |
| (3) Hydrological Division | (4) Climatological and Agro-Met Division |
| (5) Weather Forecasting and Aeronautical-Met Division | |
| (6) Meteorological Network and Earthquake Monitoring Division | |
| (7) Provincial Services of Meteorological and Hydrology. | |

Current Status of Facilities

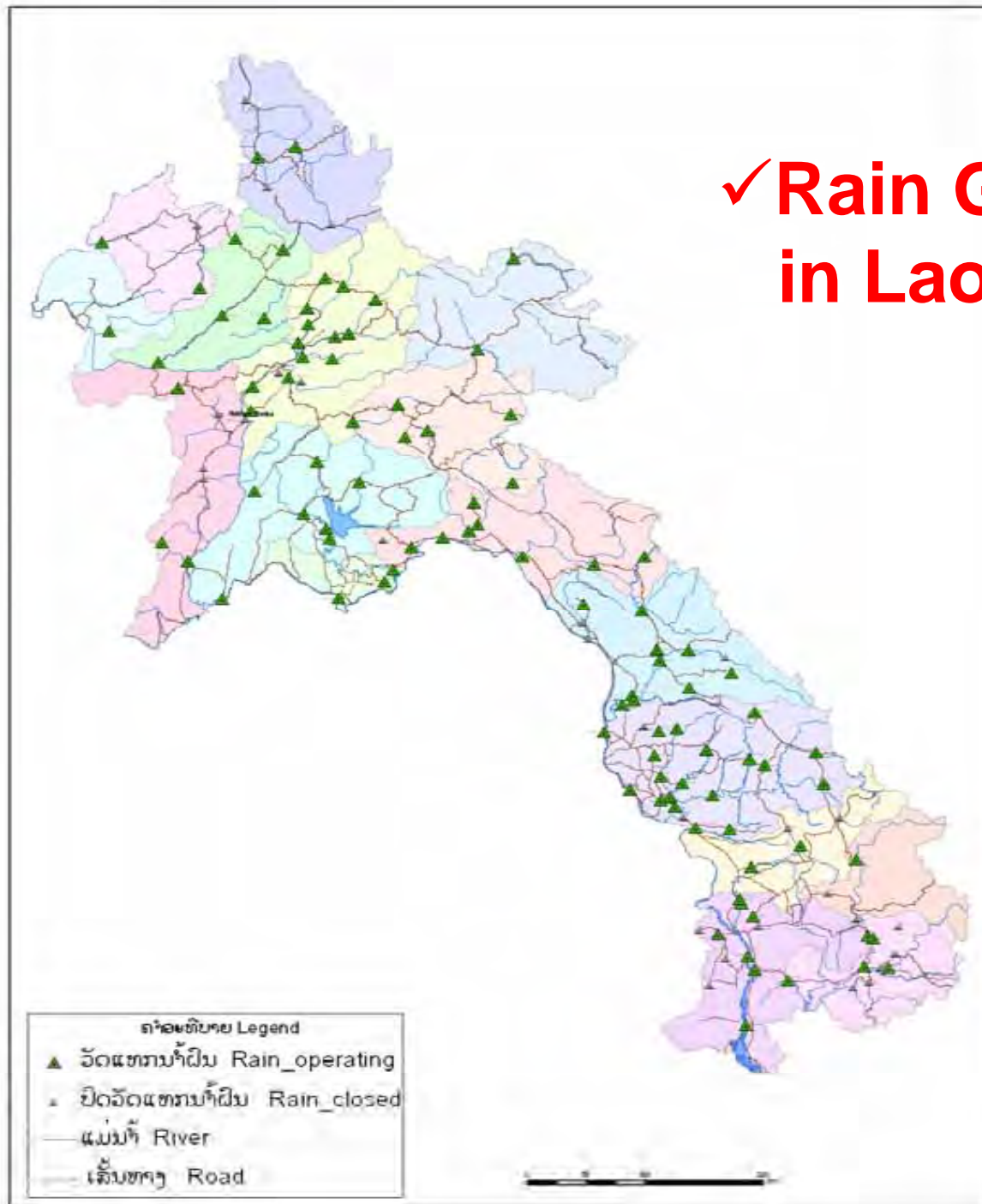


➤ Meteorological Network in Lao PDR

- ✓ RBSN = 19
- ✓ RBCN = 4
- ✓ Secondary Climate = 29



✓ Rain Gauge stations
in Lao PDR = 93



➤ **Instruments Status**

- ✓ **All existing meteorological instruments in place at 48 stations are analogue, manual types. These instruments are of various manufacturers, including Japanese, Chinese, French, German, Russian.**
- ✓ **Most of instruments are aged, some are deteriorated.**
- ✓ **Only 6 stations were recently upgraded by the JICA TCP, but still the analogue devices**
- ✓ **Lao PDR does not have Upper Air Station.**

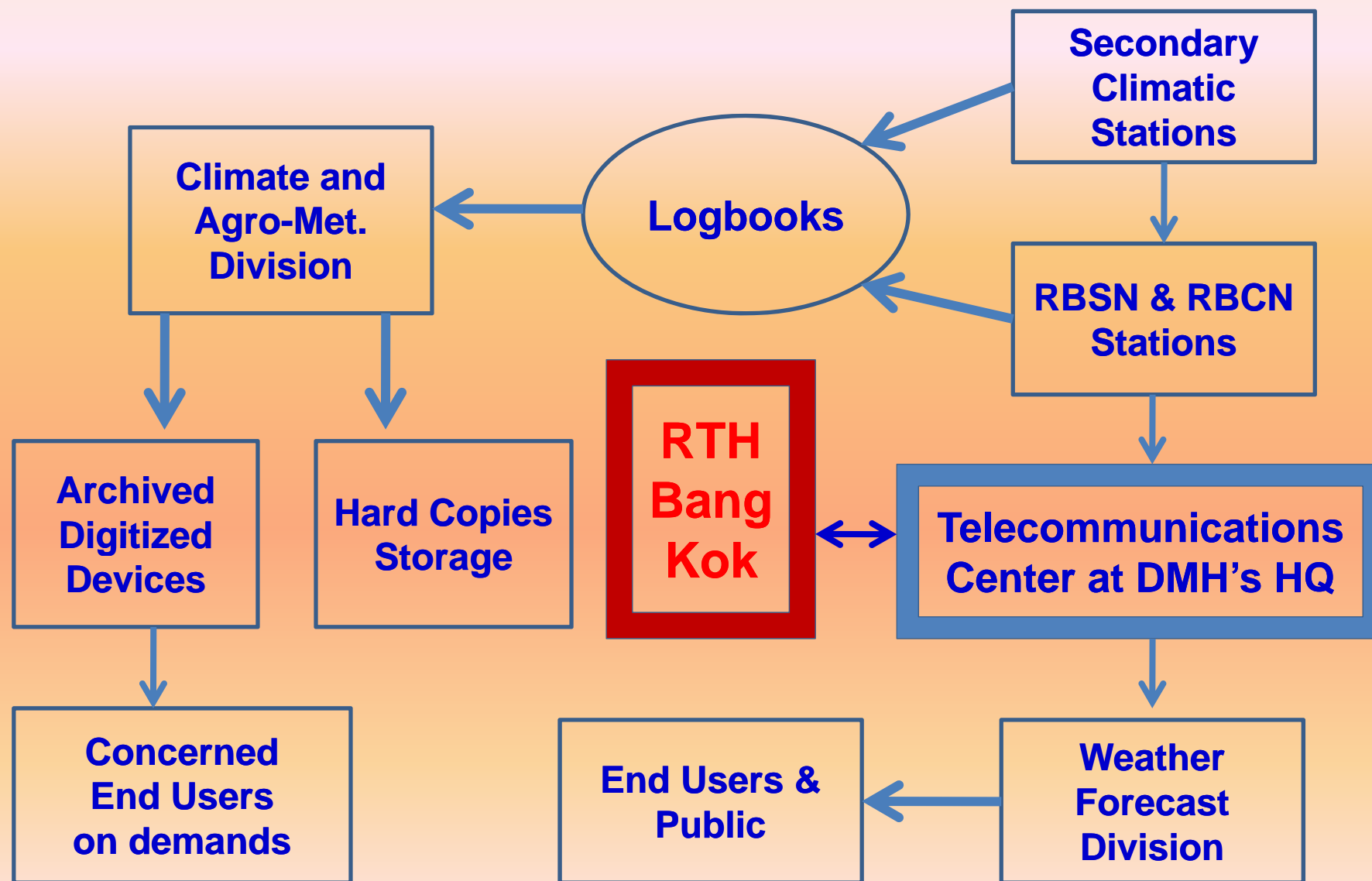
➤ **Observations & Relevant Constraints**

- ✓ **Among 19 RBSN stations, only 4 stations can perform 8 times synoptic observation. Others can carry out only 4 – 5 times observation.**
- ✓ **Some of these stations also carry out the observation for routine aeronautical service , which also provide METAR , SPECI & TAF.**
- ✓ **The Secondary Climatic stations carry out 4 times Observation , send logbooks report to Headquarter by the end of the month.**

➤ **Some Constraints.**

- ✓ **Many lessons learned and long experiences proved that manned stations with analogue, manual type instruments are of potential risk of data errors induced by both low quality of instruments and low proficiency of observers.**
- ✓ **Lack of experience & low skill in encoding techniques of SYNOP and CLIMAT for stations with high elevation > 800 m.**

➤ Data Flow to Users and Archiving



Future Plan

✓ **Set up 2011-2015 implementation plan for data management improvement :**

- 1)By the TCP , support by JICA experts for technology transfer and by the WMO-World Bank-UNISDR Project to support Southeast Asia member countries. .**
- 2)Capacity building framework alongside with the implementation of Mekong-Integrated Water Resources Management Programme (M-IWRMP).**
- 3) Participate the activities of MRCS, especially the capacity building on Hydro-Met Data Quality assurance and Quality Control under the Information and Knowledge Management Programme (IKMP & HYCOS).**

Thank you