

Ministry of agriculture and rural development
VIETNAM DISASTER MANAGEMENT AUTHORITY

Disaster Management Policy and Technical Center

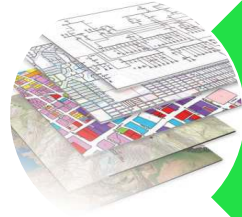
NATIONAL DISASTER MANAGEMENT FRAMEWORK IN VIETNAM



Content



Introduction



The initial result



Discussion and
Recommendation

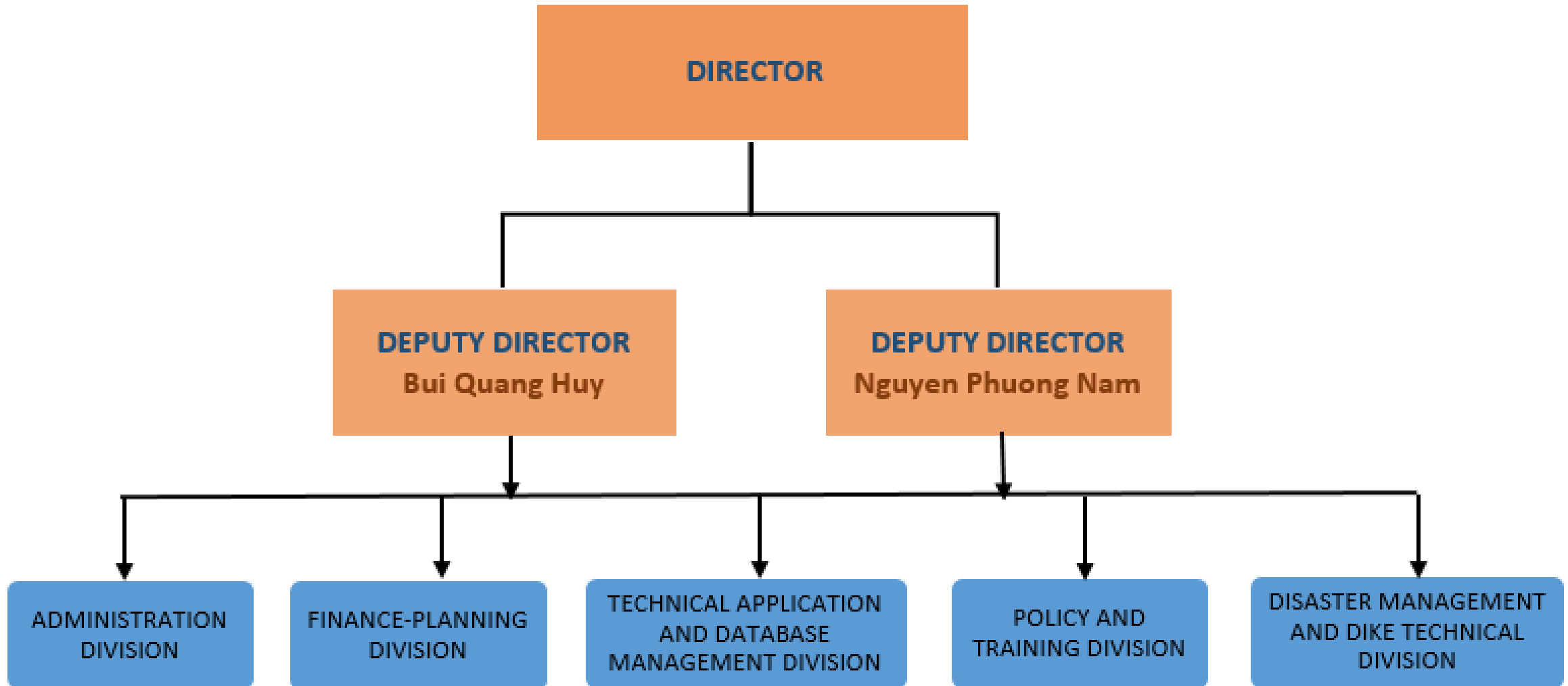
INTRODUCTION

Disaster Management Policy and Technology Center (DMPTC) is a technical supporting agency for Vietnam Disaster Management Authority (VNDMA) and Center Committee for Nature Disaster Prevention and Control (CCNDPC) for disaster management.

Structure: 05 Division

- Technical Application and Database Management Division
- Policy and Training division
- Disaster Management and Dike Technical Division
- Administration Division
- Finance-Planning Division

Organization structure

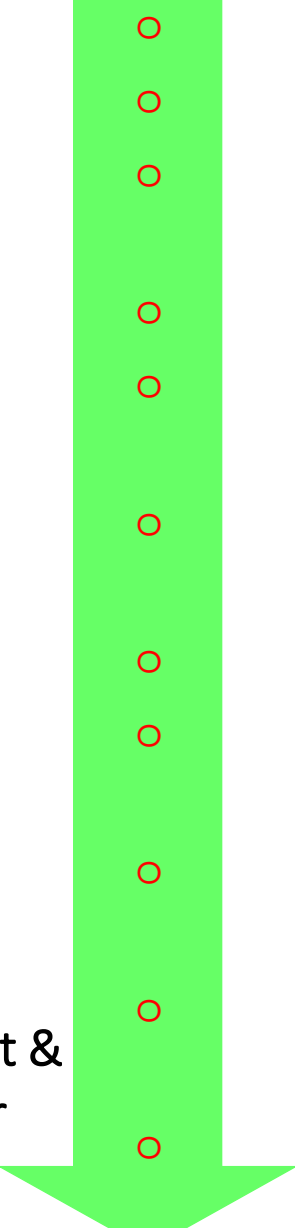


Law and strategy

1. Law on natural disaster prevention and control (May 2014).
2. National strategy for natural disaster prevention, response and mitigation to 2020.
3. Strategic research and application of space technology in 2020 approved in Decision 137 / QD-TTg 06/14/2006 Prime Minister.
4. Program on "Community Base Disaster Risk Management" according to Decision No.1002/QD-TTg dated 13/07/2009.



Activities in applying space technology in Vietnam

- 
- 2013: ○ UN-SPIDER Technical Advisory Mission to Vietnam (March 2013)
 - 2014: ○ UNSPIDER and GITA' technical Advisory Group to Vietnam (September 2014)
○ JAXA & Disaster Charter: 1st Request / activation: Collected Data, products from Sentinel Asia, Disaster Charter, Vietnamese DANs, AIT, Tokyo University
○ JAXA&AIT (GIC) in mini project activities (2014)
○ DMC Collaborated STI for processing, mapping, survey and report (BIG Flooding 2014, Quang Ninh province)
 - 2015: ○ Sign MOU between JAXA, WRD, VAST (September 2015); Building Implementation plans for 3 years of MOU
○ JAXA&AIT (GIC) in mini project activities (2015)
 - 2016 ○ 2nd : Request / activation SA: DMC Collaborated STI for processing, mapping, survey and report (BIG DROUGHT 2015-2016, Central Highland of Viet Nam)
○ 3rd: Request / activation SA: DMC Collaborated STI for processing, mapping, survey and report (BIG DROUGHT 10-11/2016, Central Coastal province of Viet Nam)
 - Present & further ○ 4th: Request/ activation SA: for two flood event in October & November, 2016 in the central area of Vietnam.
○ Cooperation to organization the 10 years anniversary workshop and the 4th JPTM meeting in Hanoi (2017)

UN-SPIDER Technical Advisory Mission to Vietnam – Mar 2013



Memorandum of Understanding signing ceremony – Sep 2015

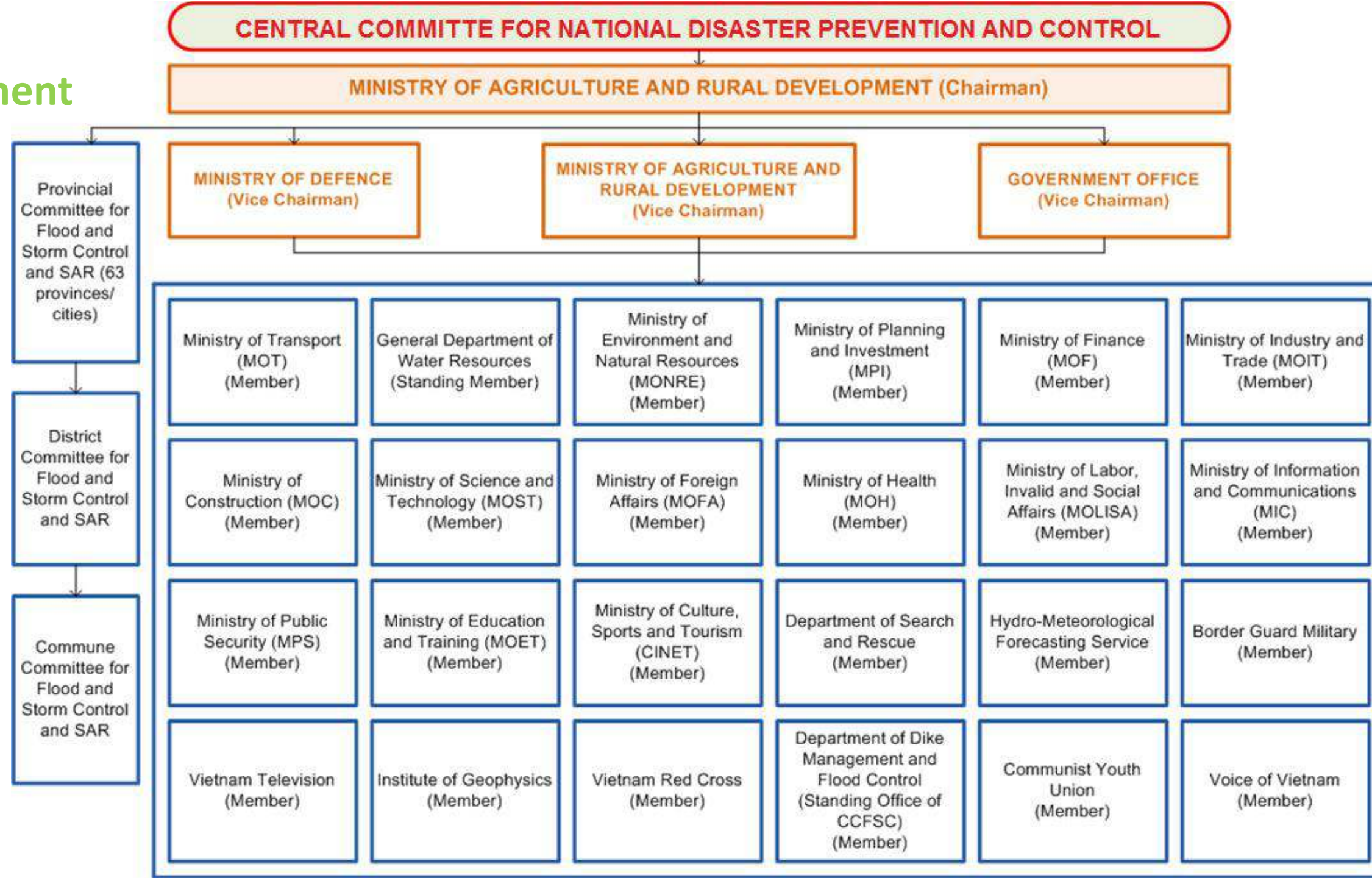
(WRD) – (MARD) & (VAST) & (JAXA)

The Parties cooperate and make efforts on the following activities;

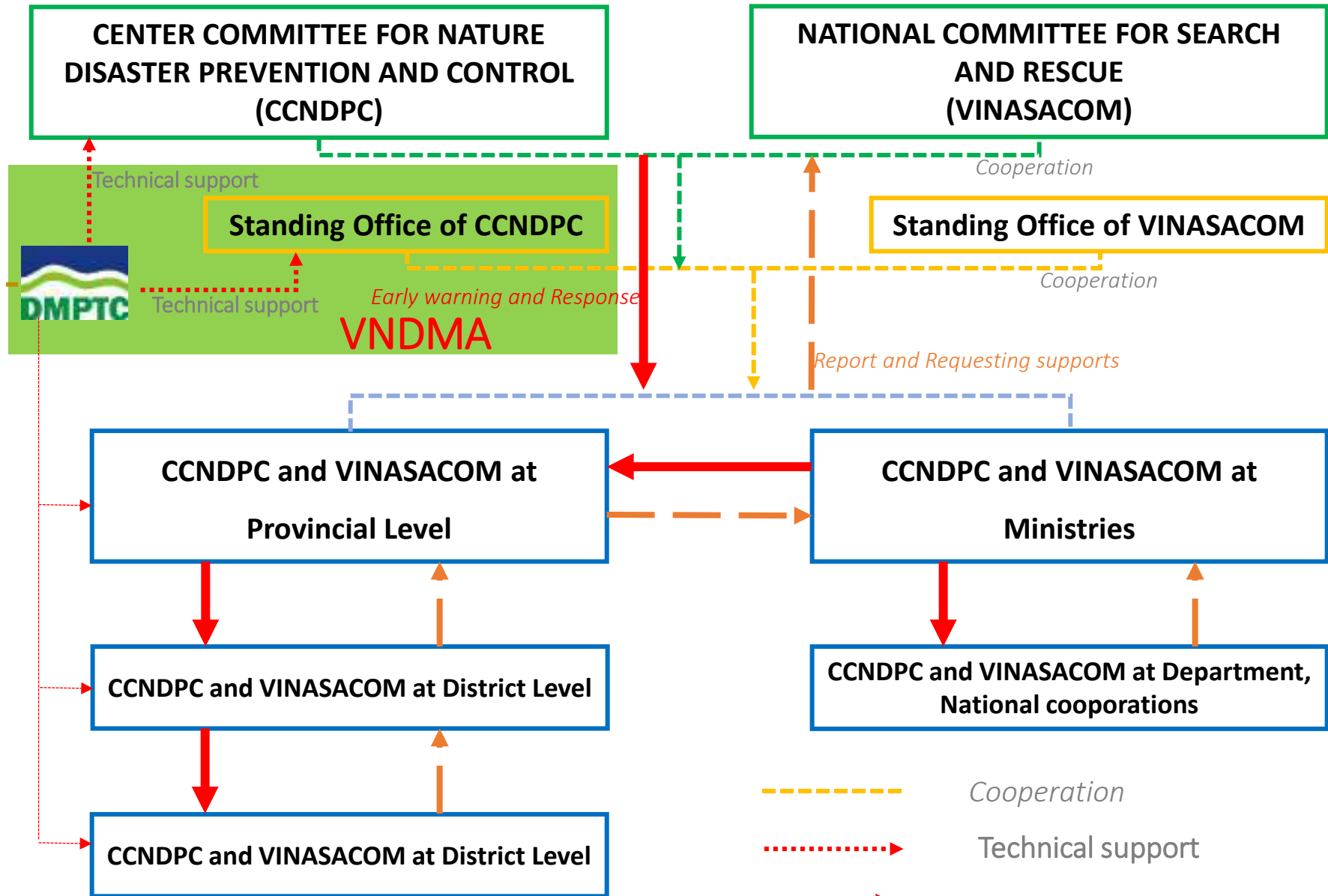
- ❑ Development of a database system by past satellite imageries of Vietnam for disaster prevention.
- ❑ Exchange of satellite data when disaster happens. Strengthening the capacity of application of remote sensing and GIS technology for disaster prevention in Vietnam.
- ❑ Development of programs and projects on application of remote sensing and GIS technologies for disaster prevention.



Disaster management structure



DMPTC role in Disaster management systems



CENTER COMMITTEE FOR NATURE DISASTER PREVENTION AND CONTROL (CCNDPC)

NATIONAL COMMITTEE FOR SEARCH AND RESCUE (VINASACOM)

Local and international technical agencies

Standing Office of CCNDPC

DMPTC

VNDMA

Early warning and Response

Standing Office of VINASACOM

CCNDPC and VINASACOM at Provincial Level

CCNDPC and VINASACOM at Ministries

CCNDPC and VINASACOM at District Level

CCNDPC and VINASACOM at Department, National cooperations

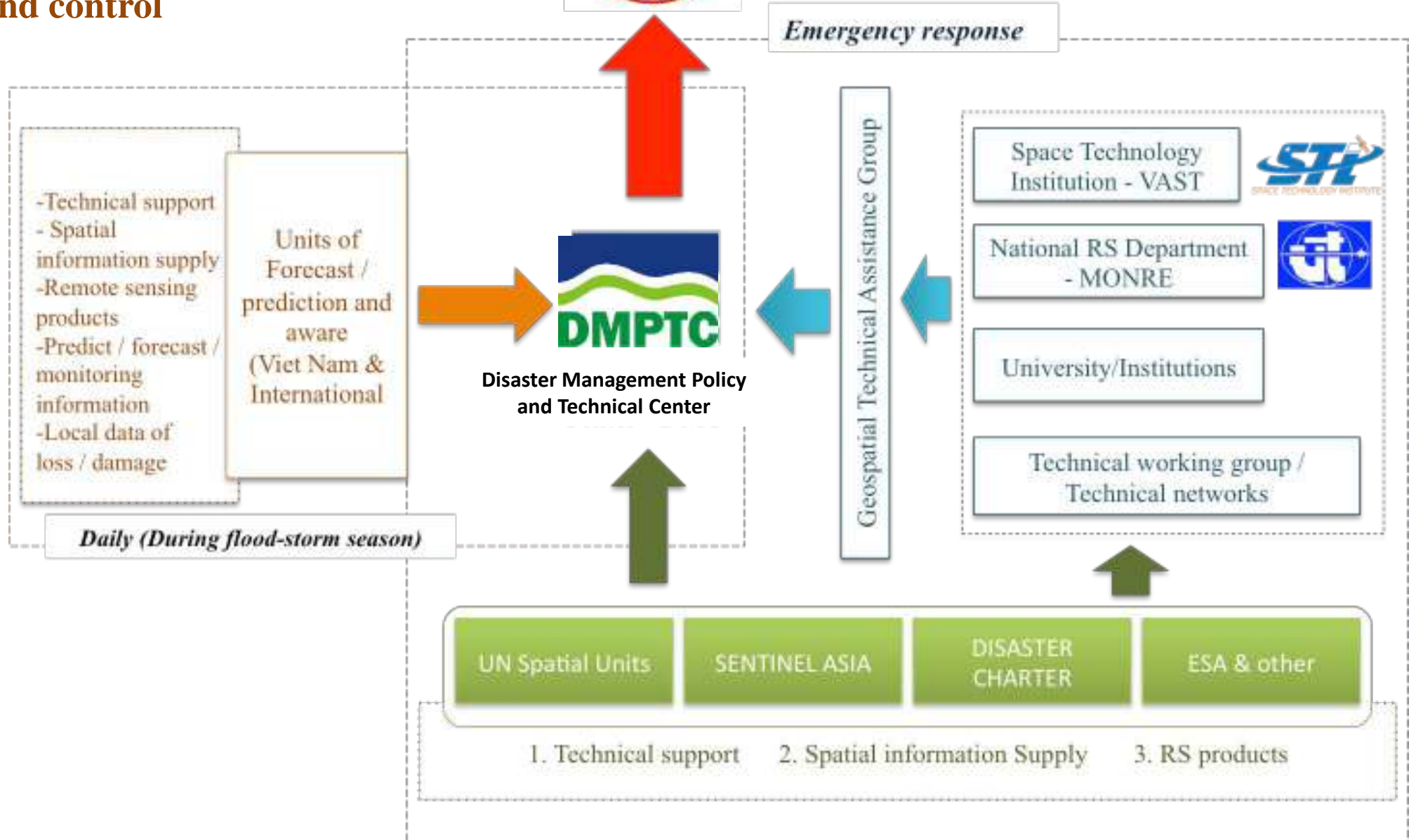
CCNDPC and VINASACOM at District Level

- - - - - Cooperation
- Technical support
- ▶ Early warning and Response
- - - - -▶ Report and Requesting supports

The structure for receipt RS and GIS to serve for disaster prevention and control



Standing Office of National Committee for Disaster prevention and Control







THE INNITIAL RESULT

- Emergency response for Flood disaster on 2015
- Response for drought disaster on 2016
- Emergency response for Flood disaster on 2016
- Emergency response for Flood disaster on 2017

Results

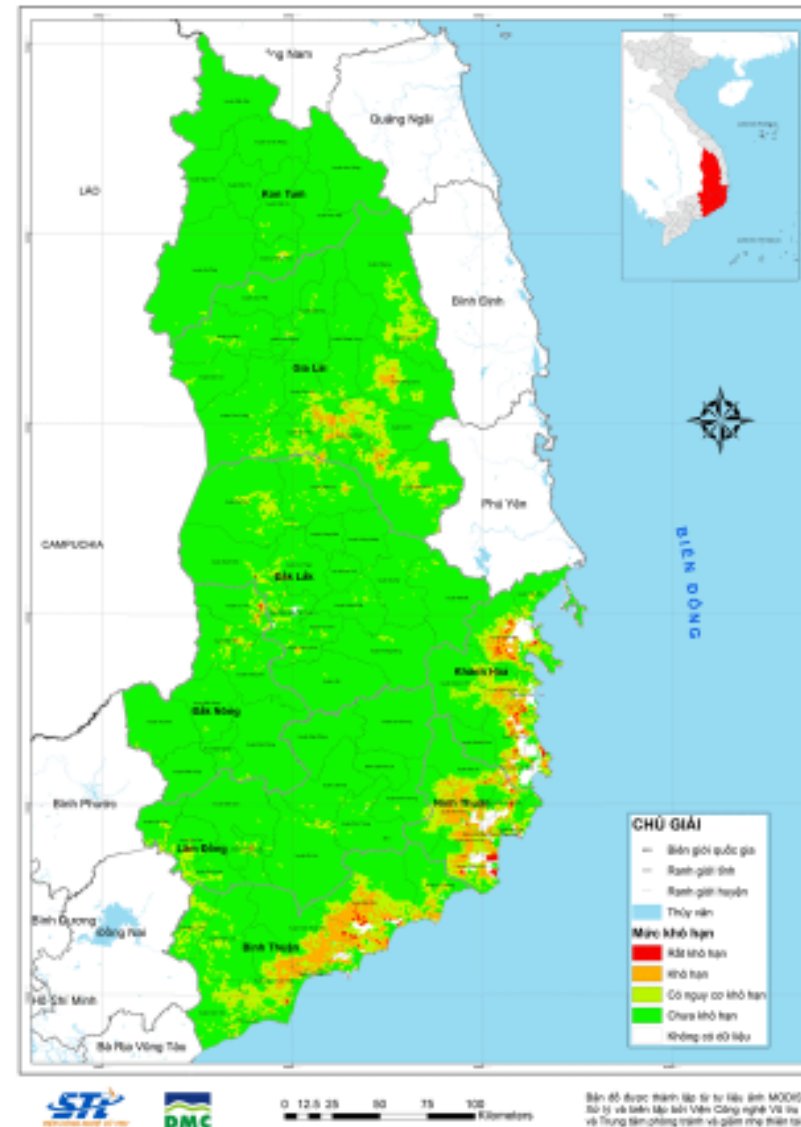
MODIS satellite

(adapted from Mauro E. Holzman và Raúl E. Rivas, 2015)

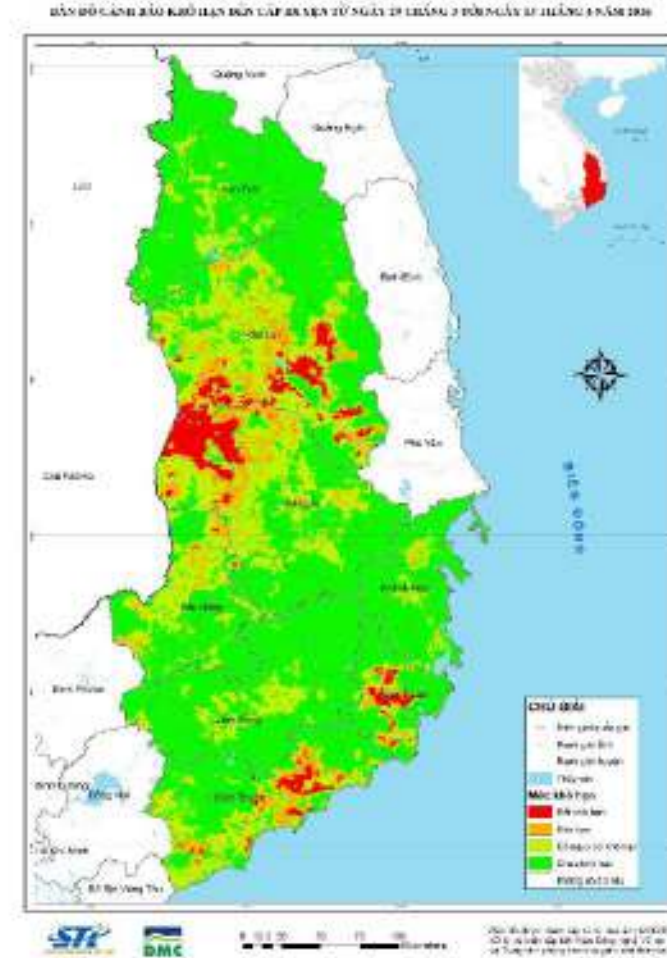
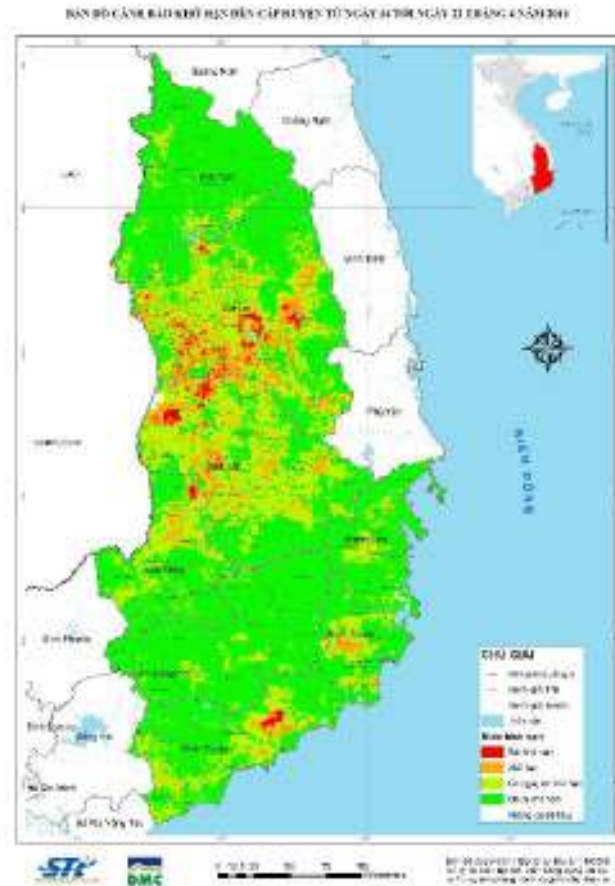
Mức độ cảnh báo khô hạn	Ngưỡng giá trị TVDI	Thang màu cảnh báo
Rất khô hạn	0,7 – 1	
Khô hạn	0,55 – 0,7	
Có nguy cơ khô hạn	0,4 – 0,55	
Chưa khô hạn	< 0,4	



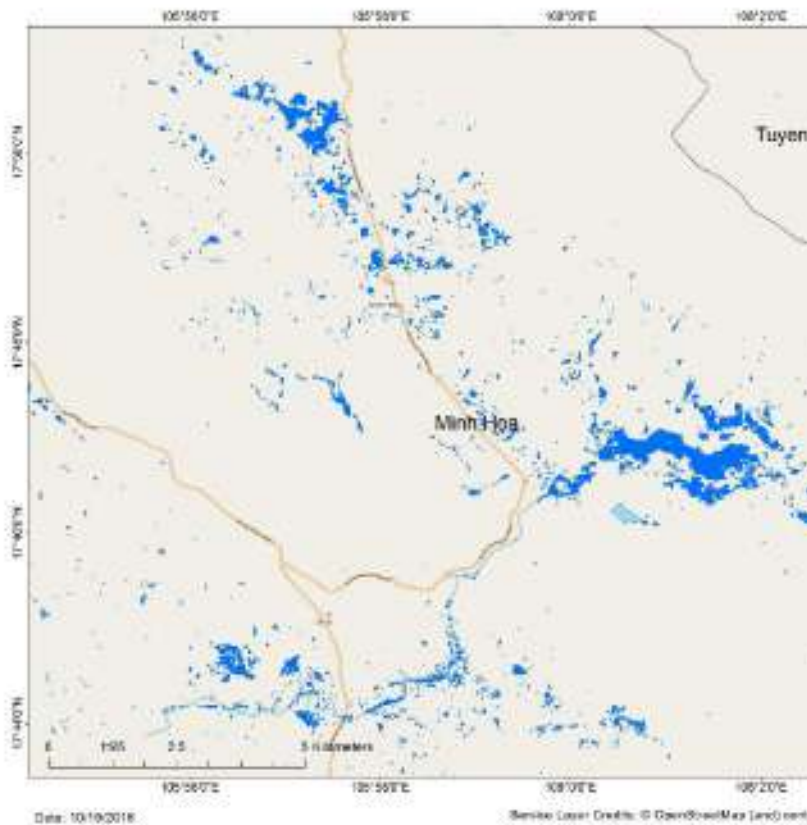
BẢN ĐỒ KHÔ HẠN NGÀY TRUNG BÌNH THÁNG 9 NĂM 2015



Drought map of Highland area and South Central area on 2015.



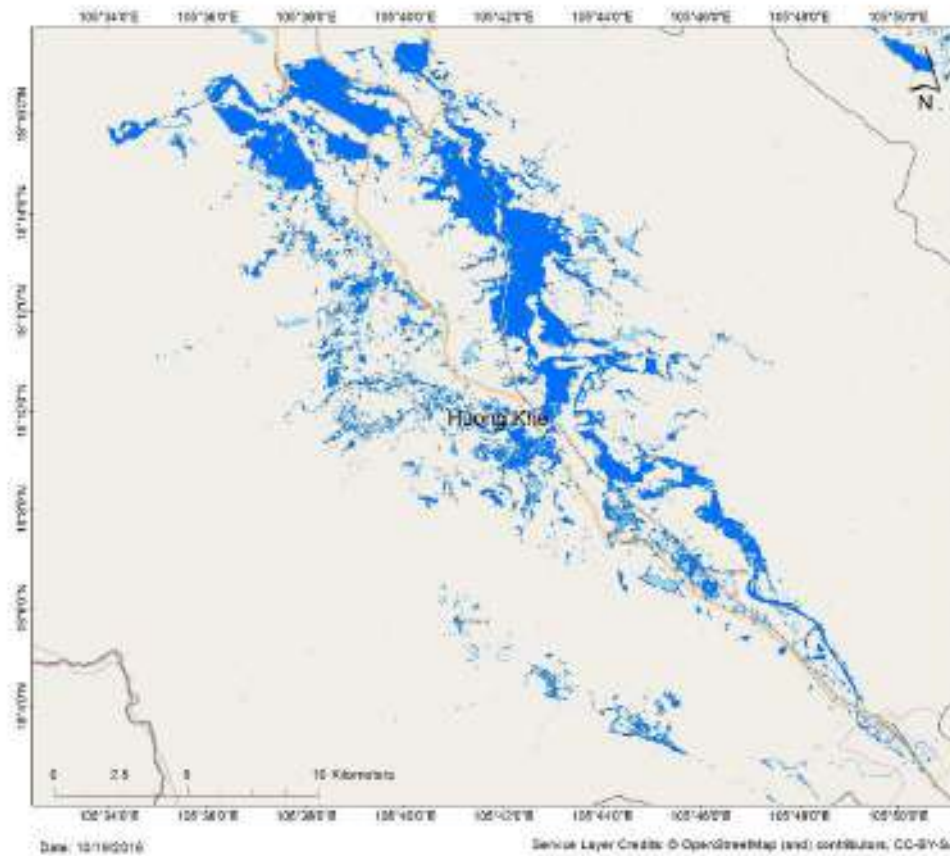
STI and DMC cooperation to produced the drought map for 5 provinces in Highland area and Ninh Thuan, Binh Thuan, Binh Dinh provinces.



Legend

October 2016
 DMPTC & STI requested Sentinel Asia
 AIT processed

DETECTED WATER IN HUONG KHE DISTRICT, HA TINH PROVINCE, VIETNAM (16 OCT 2016)



Legend

Detected Water

MAP SCALE 1:60,000

POST-DISASTER IMAGE

Satellite Sensor: ALOS-2/ PALISAR-2
 Date: 16 Oct 2016
 © JAXA

Coordinate System: GCS_WGS_84
 Datum: D_WGS_84
 Unit: Degree

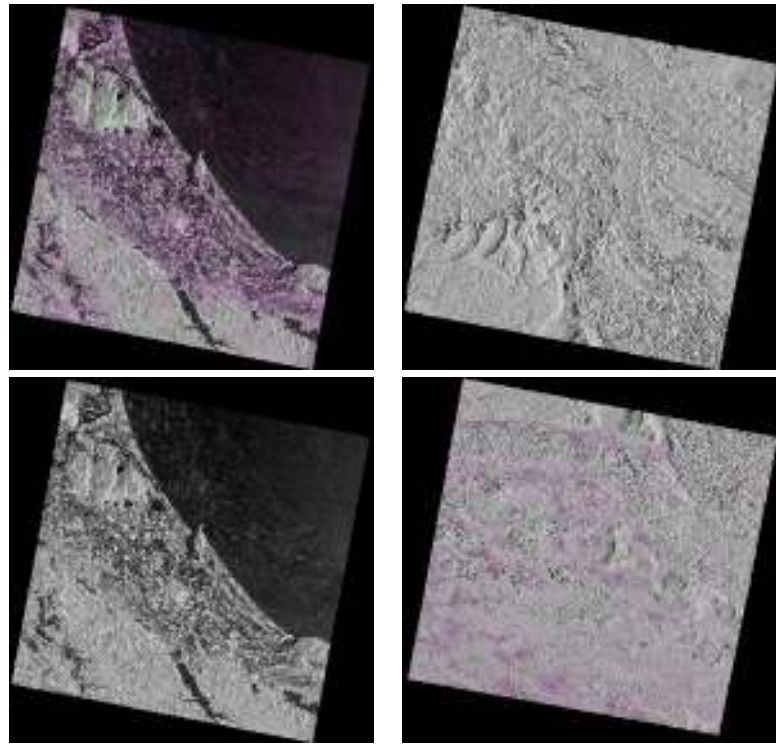
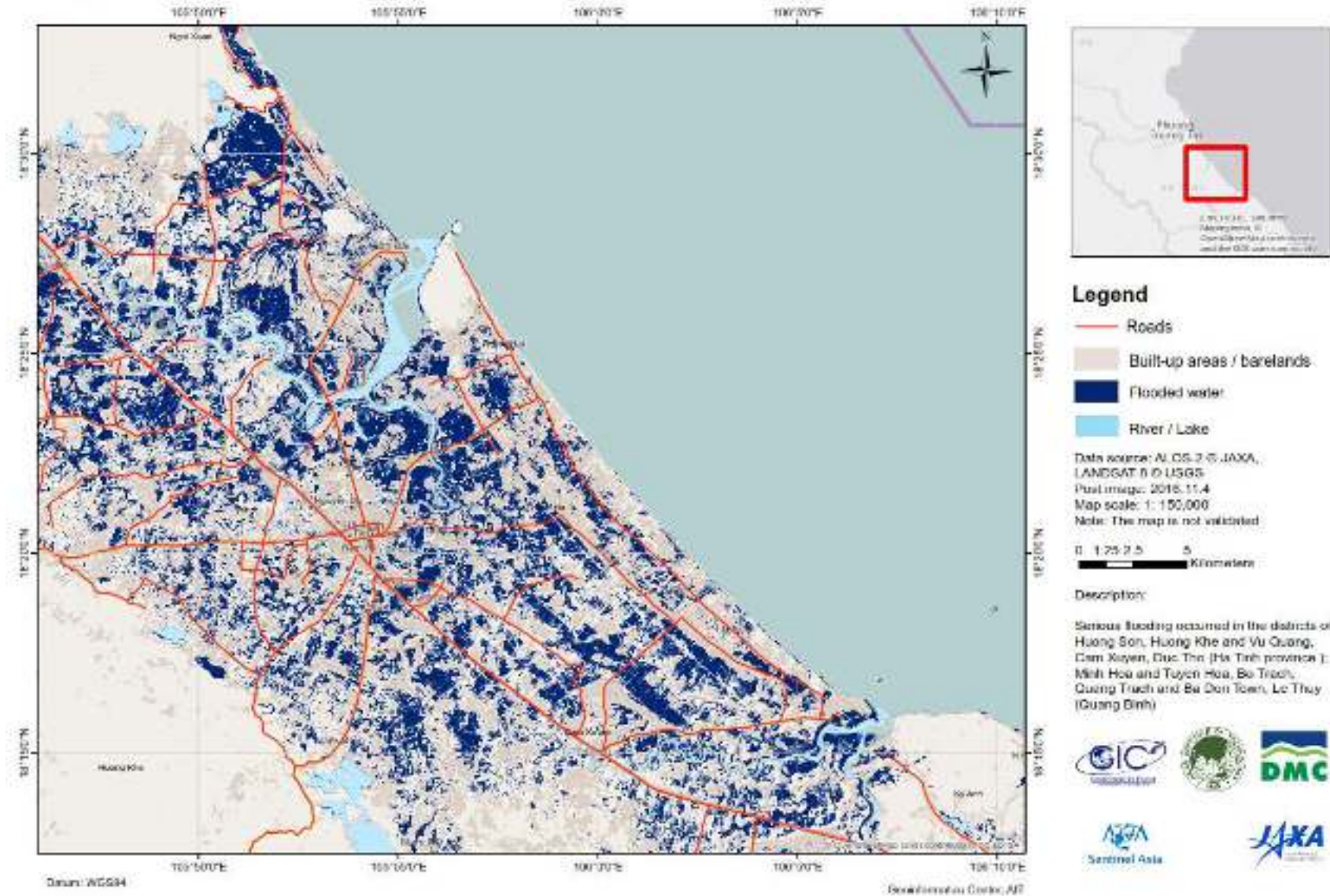
This map shows detected water areas in Huong Khe district, Quan Binh province, Vietnam as observed from ALOS-2 data on 16 October 2016. Image processing using threshold technique was applied to extract the water area.

Disclaimer: The accuracy of this product is not validated.

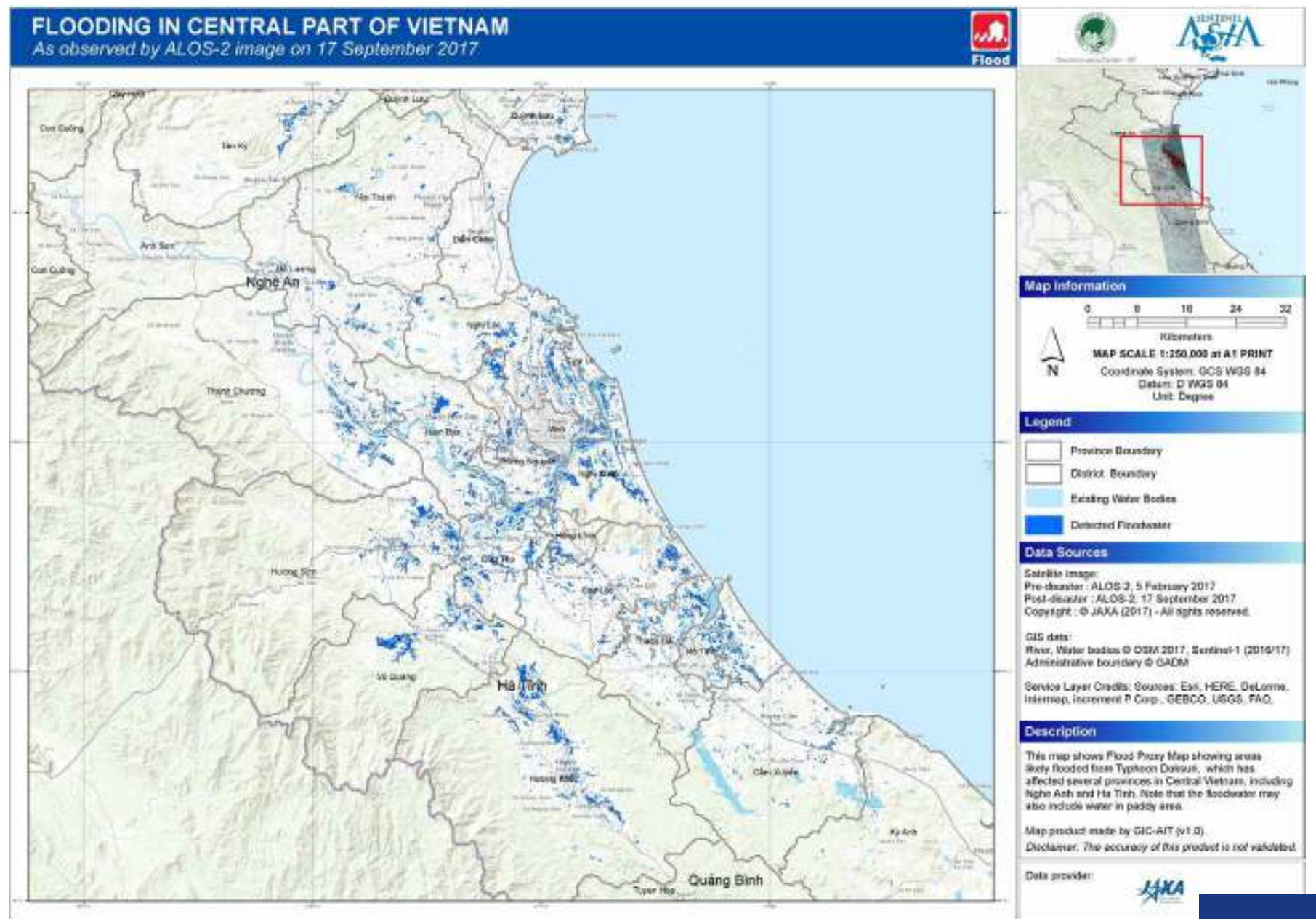
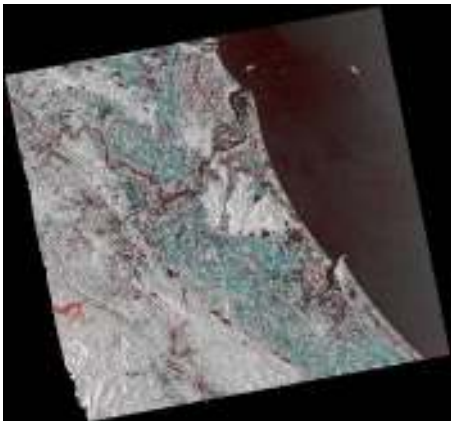


November 2016
 DMPTC & STI requested
 Sentinel Asia
 AIT processed

Map 1.1 : Existing Water Detected by ALOS-2/PALSAR-2 Images observed on 04/11/16 in Central of Vietnam



September 2017
DMPTC requested
Sentinel Asia
AIT processed



NEXT STEPS

- Building the cooperation mechanism, portal library to quick sharing product, raw data between Vietnam technical organization belong to DANs, PDANs, Node...
- Developing the National Infrastructure for Disaster Management Informaton including database of RS data and production.
- Establishing a Disaster Monitoring Group to collect field data, satellite images and UAV,...to develop monitoring report (including rapid map and updating disaster map) updating disaster situation and responding activities.
- Submitting the SOP to provide data and develop the disaster rapid and updating map
- Capacity building for DMPTC to using space technology in disaster management.

**THANK YOU
FOR
LISTENING**

