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BMKG's POTENTIAL DROUGHT MONITORING INFORMATION SYSTEM

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CONTENTS

CONTENTS

INTRODUCTION	– Indonesia; – Climate Factors; – Tectonic Plate; – Mandate
DEVELOPMENT	– Ina-TEWS; – Ina-MEWS; – Ina-CEWS;
DROUGHT MONITORING	– System; – Products and Results
LESSON LEARNED	Climate Field School
CONCLUSION	Remarks

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INTRODUCTION

Indonesia

- Archipelagic country ~ 17,504 islands (10,000 small islands), right at the equatorial line;
- 4 Juta km2 width of ocean and 2 Juta km2 land, 6,000 distance length east to west, and 80,000 km of coastal length;
- Flanked by 2 ocean (India and Pacific) and 2 continents (Australia and Asia);
- Lays above three plates moving on different speed of creeping ➔ prone to Earthquake and Tsunami;
- Exposed by 3 types of rain, 2 extreeme weather on the east and west, more than 220 seasonal variation zone.

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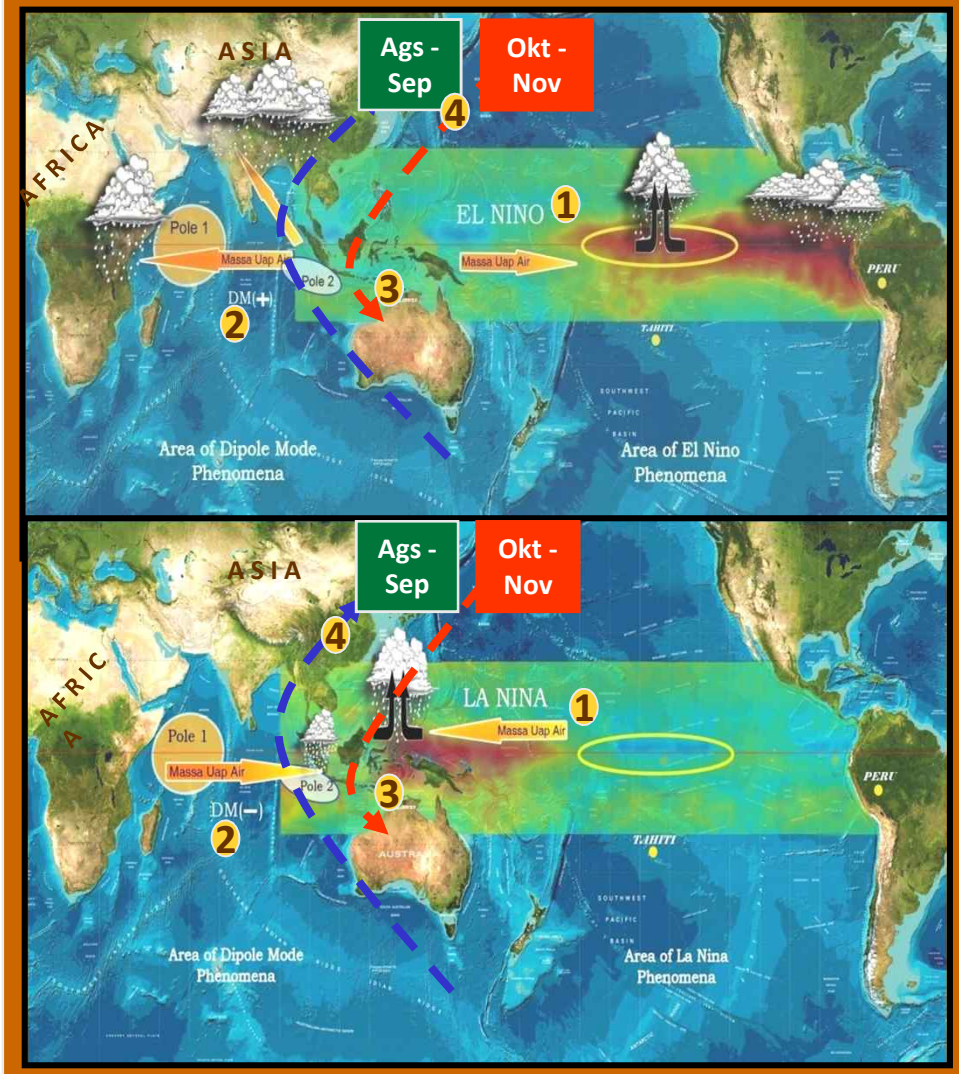
INTRODUCTION

Climate Factors



1. EL NINO / LA NINA
2. DIPOLE MODE POSITIVE/ DIPOLE MODE NEGATIVE
3. SURFACE TEMPERATURE
4. EASTERLY/ WESTERLY WIND

EL NINO (°C)

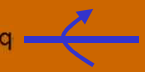
SEP 09	1.38
OKT 09	1.95
NOV 09	2.07
DES 09	1.94

DIPOLE MODE (°C)

SEP 09	(+) 0.38
OKT 09	(+) 0.40
NOV 09	(+) 0.32
DES 09	(+) 0.22

DIRECTION OF SEASONAL WIND

AGS – SEP EASTERLY



OKT– NOV WESTERLY

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CONTENTS

INTRODUCTION

DEVELOPMENT

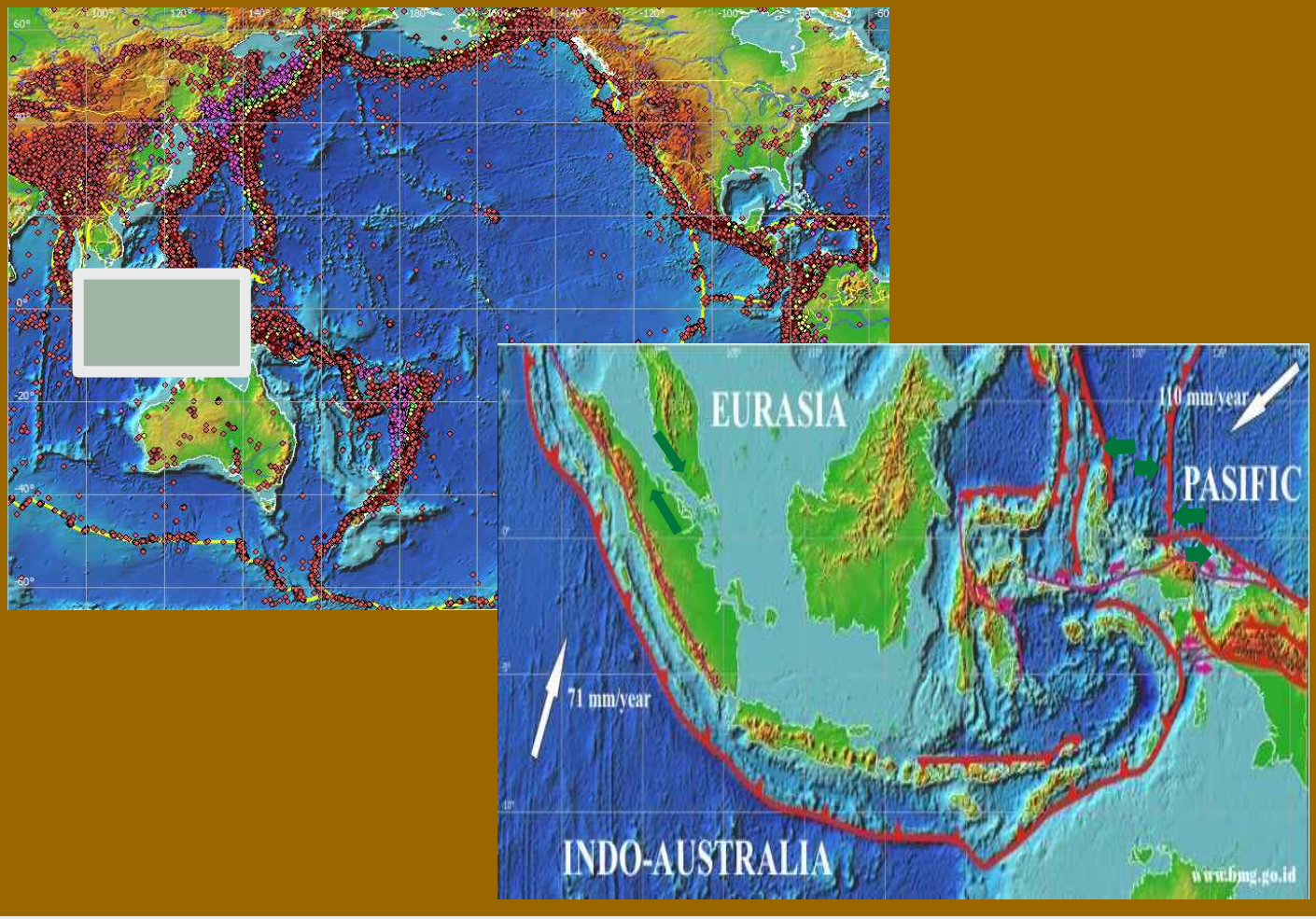
DROUGHT MONITORING

LESSON LEARNED

CONCLUSION

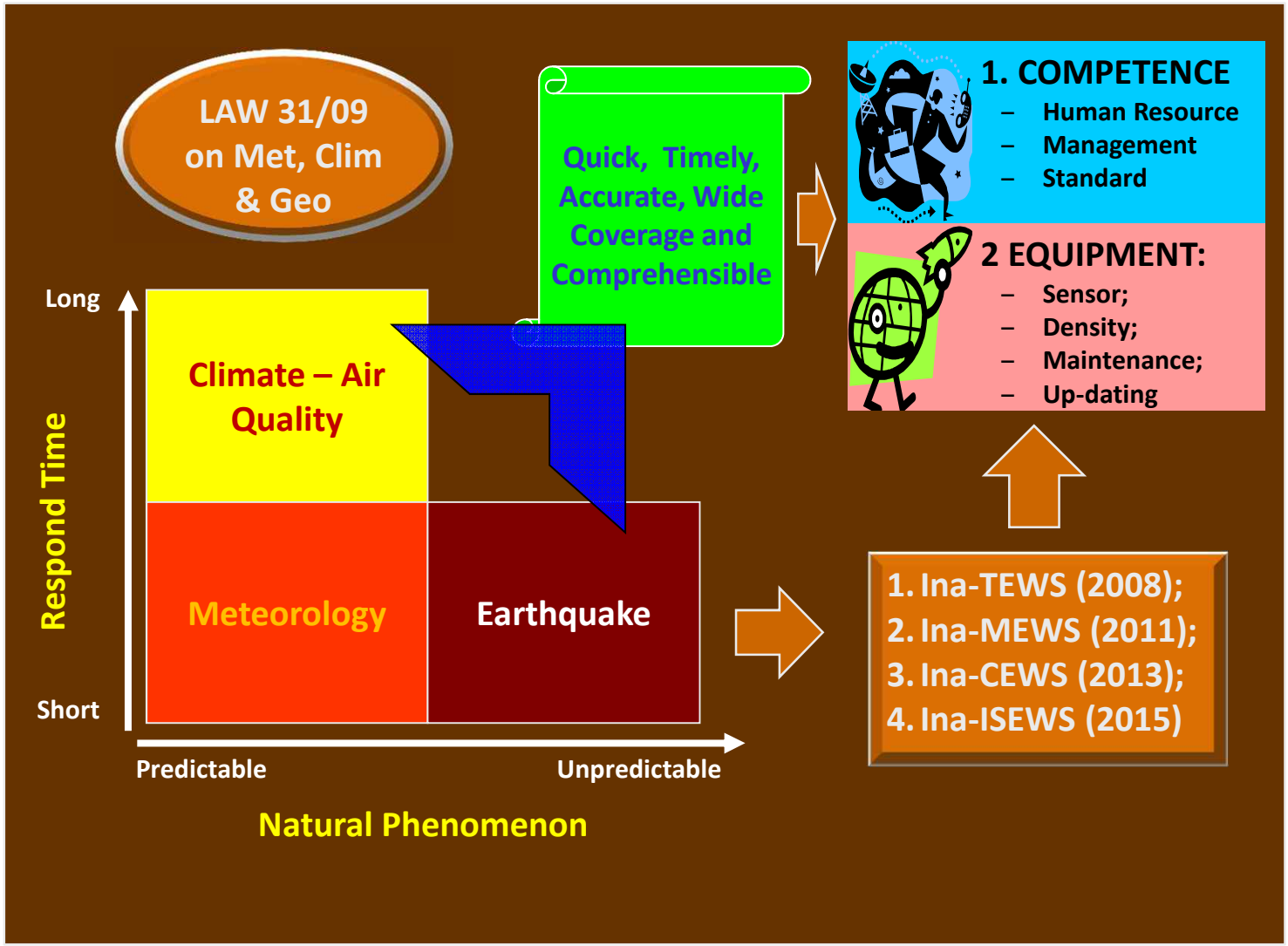
INTRODUCTION

Tectonic Plate



INTRODUCTION

Mandate



DEVELOPMENT

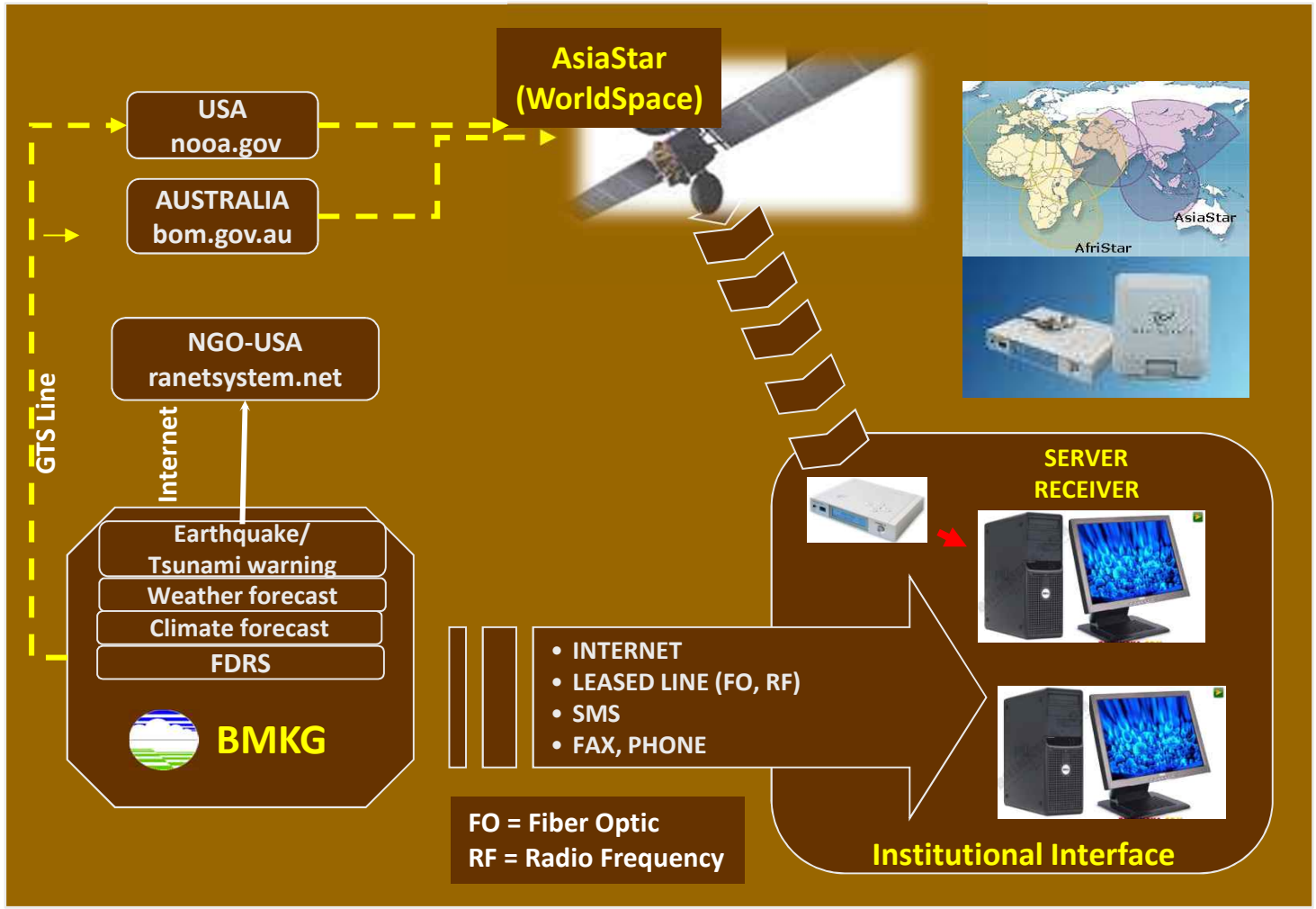
InaTEWS

- 10 RCs, 163 BB SS, 281 Intsm, 56 DVB; 28 Sirines, and DSS.

- The 1st phase of InaTEWS is developed from 2005 – 2008 after Aceh Tsunami, and launched in Nov 11, 2008;
- It involved more than 16 national institutions and 5 international countries;

DEVELOPMENT

InaTEWS



Information Diagram

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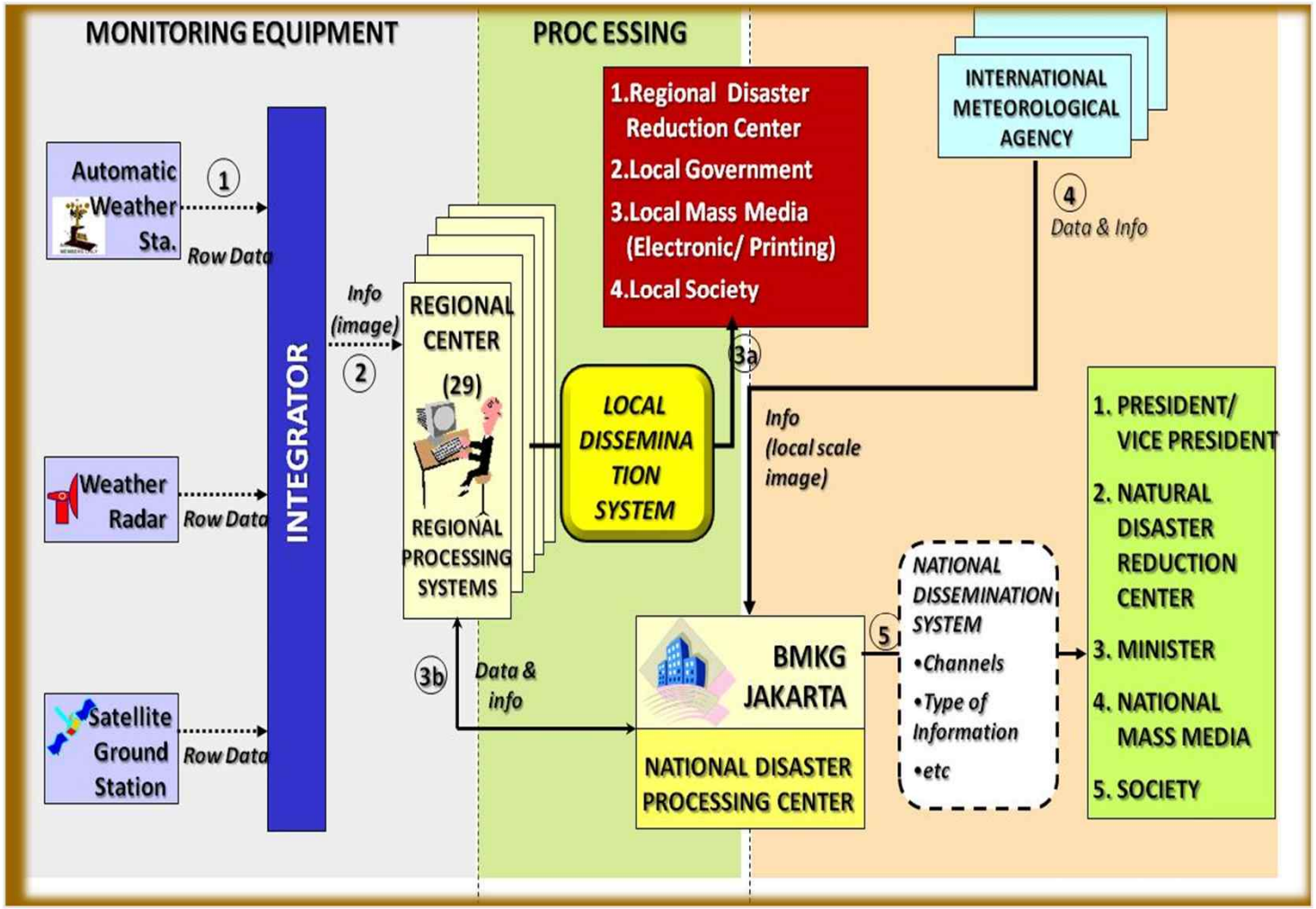
DEVELOPMENT

Ina-MEWS



Information Diagram

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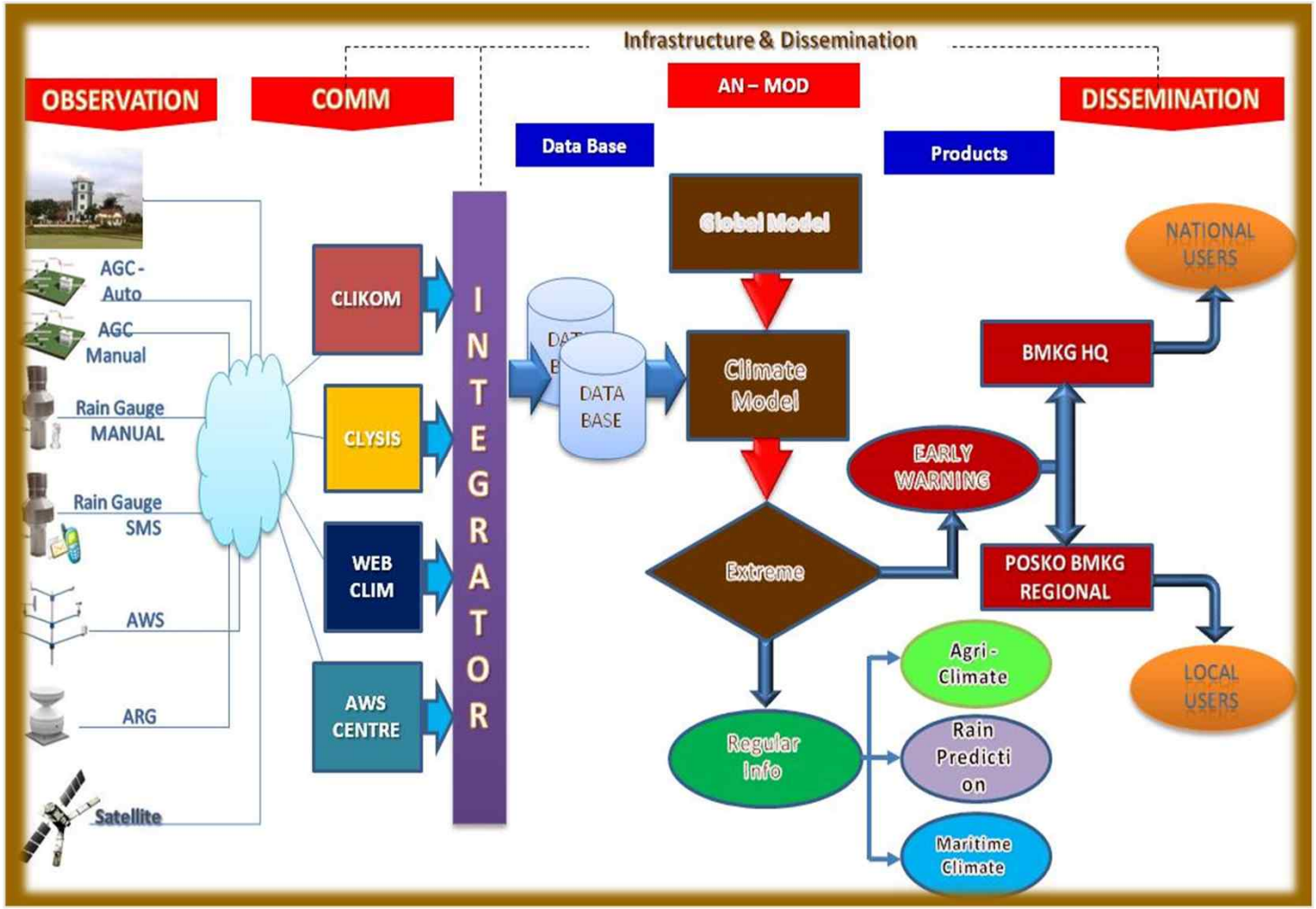
DEVELOPMENT

Ina-CEWS



Information Diagram

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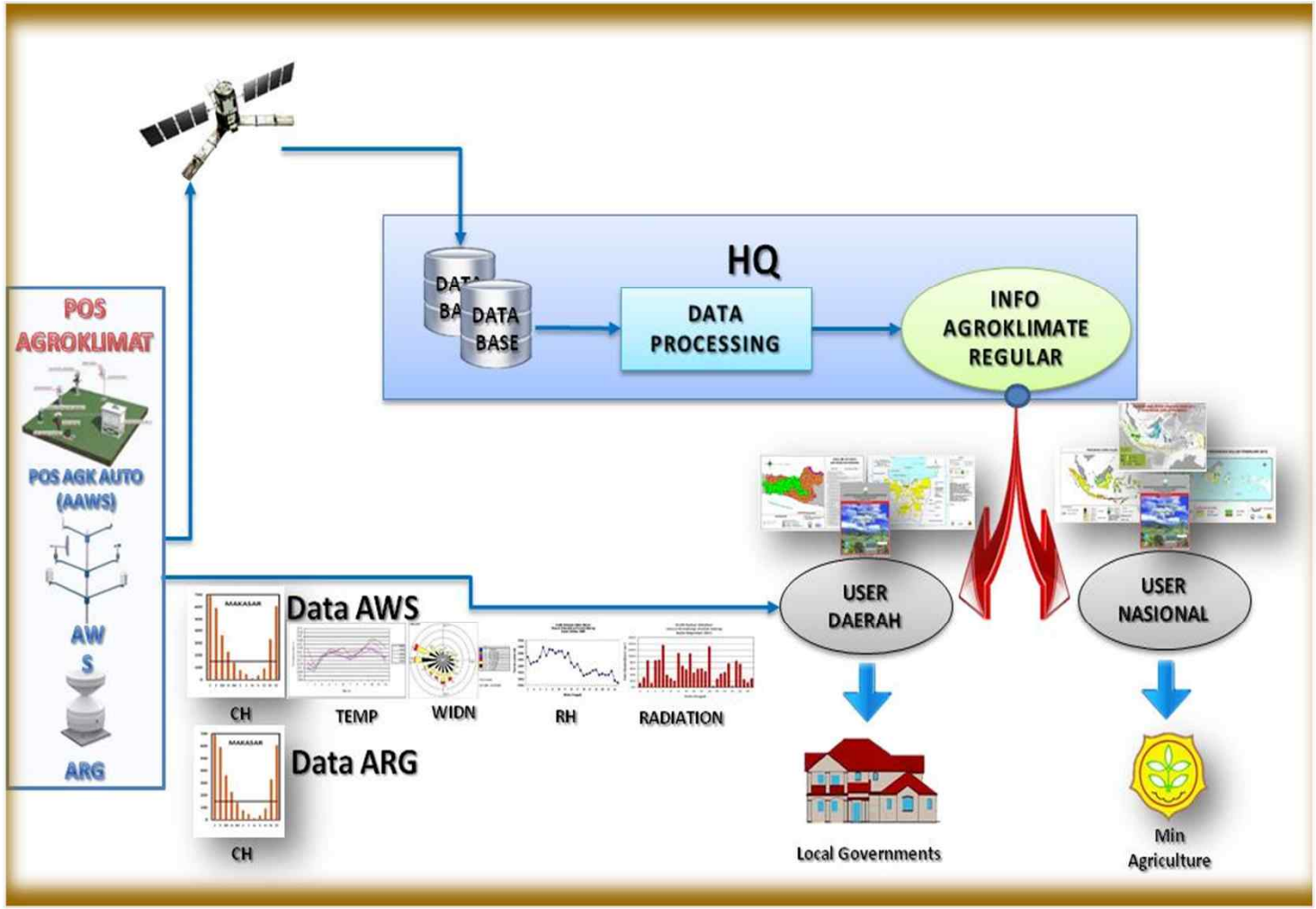
DROUGHT MONITORING

System



Information Diagram

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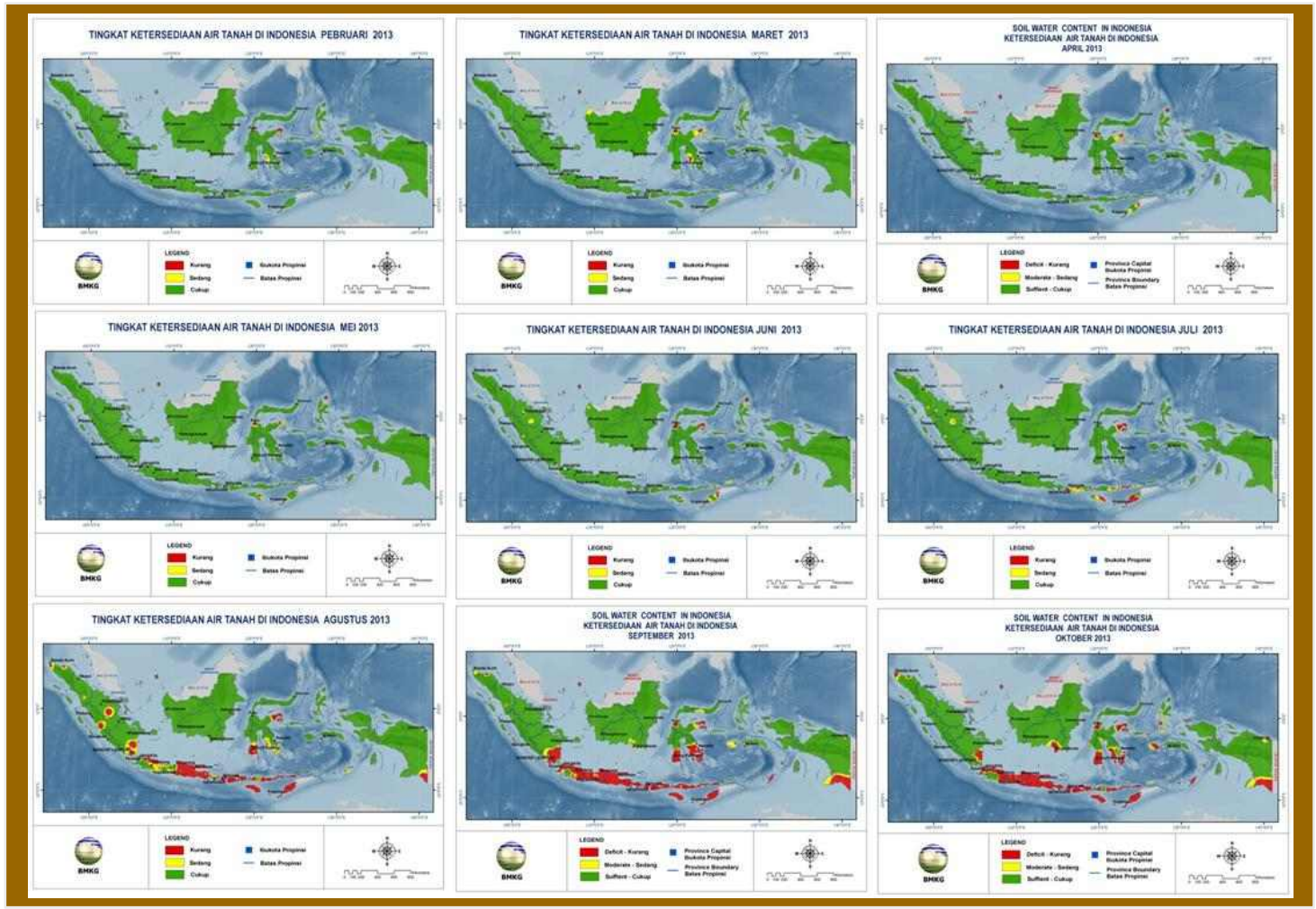
DROUGHT MONITORING

Products and Results



SOIL WATER CONTENTS

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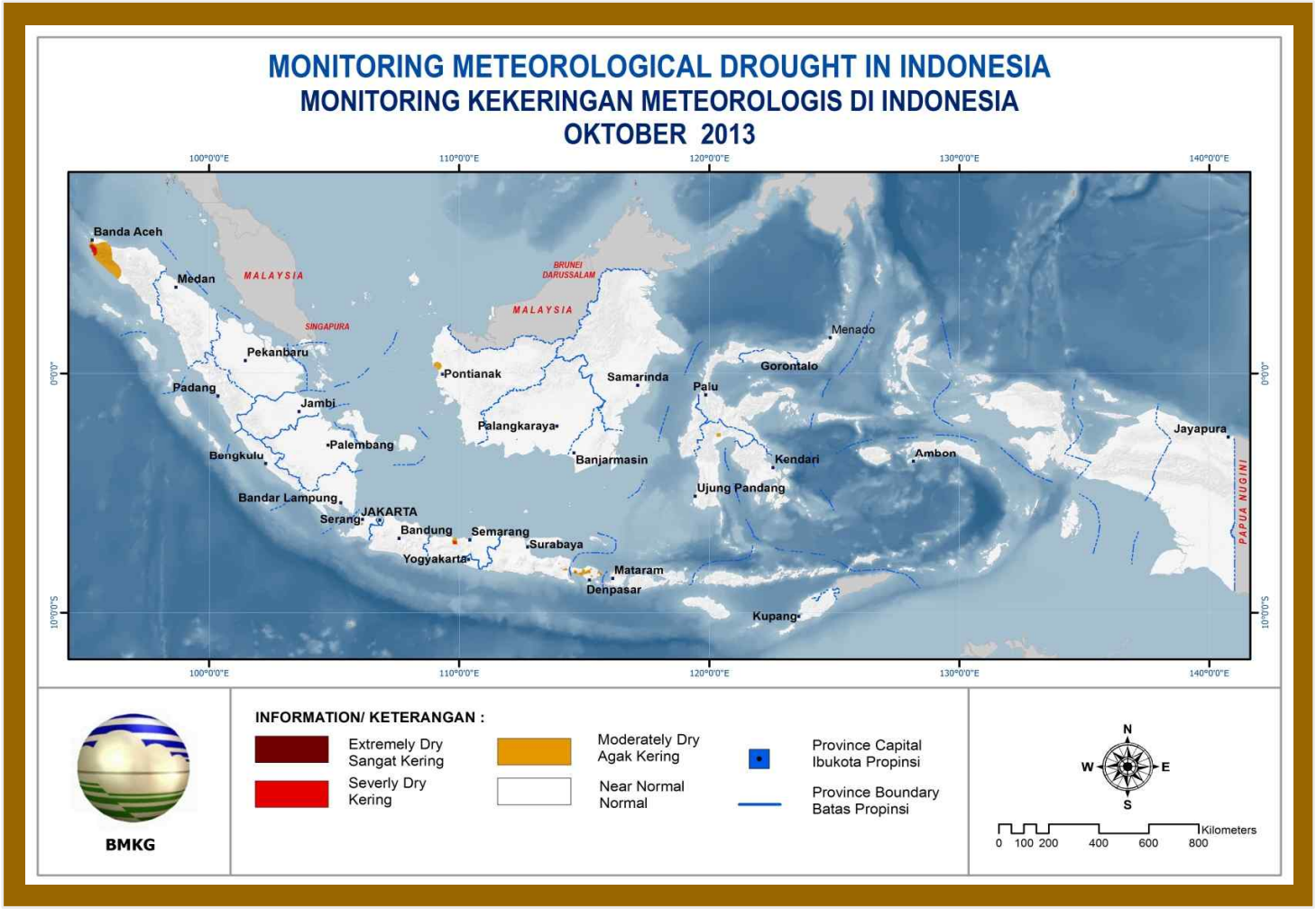
DROUGHT MONITORING

Products and Results



Standard Percipitation Index

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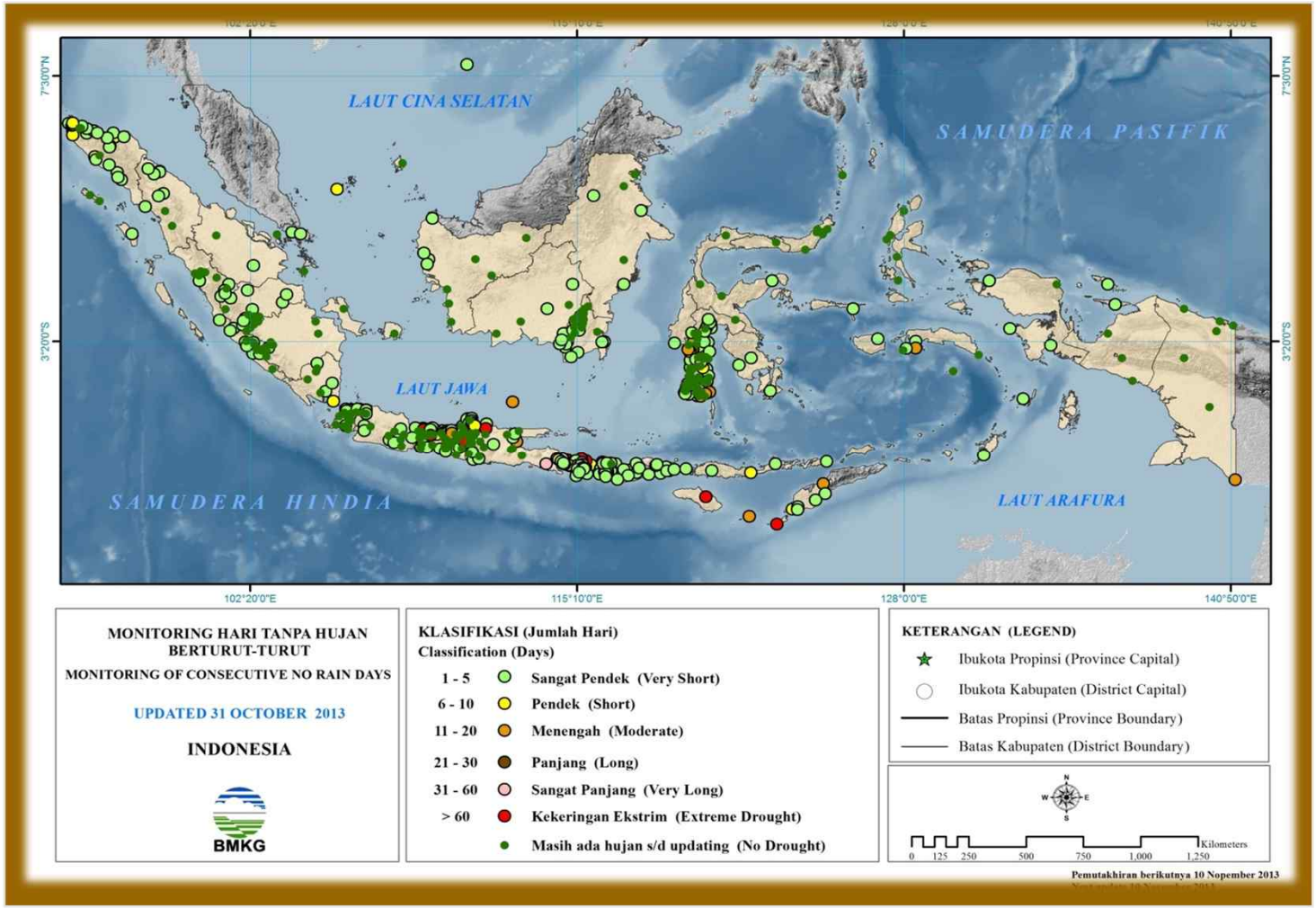
DROUGHT MONITORING

Products and Results



DRY SPELL

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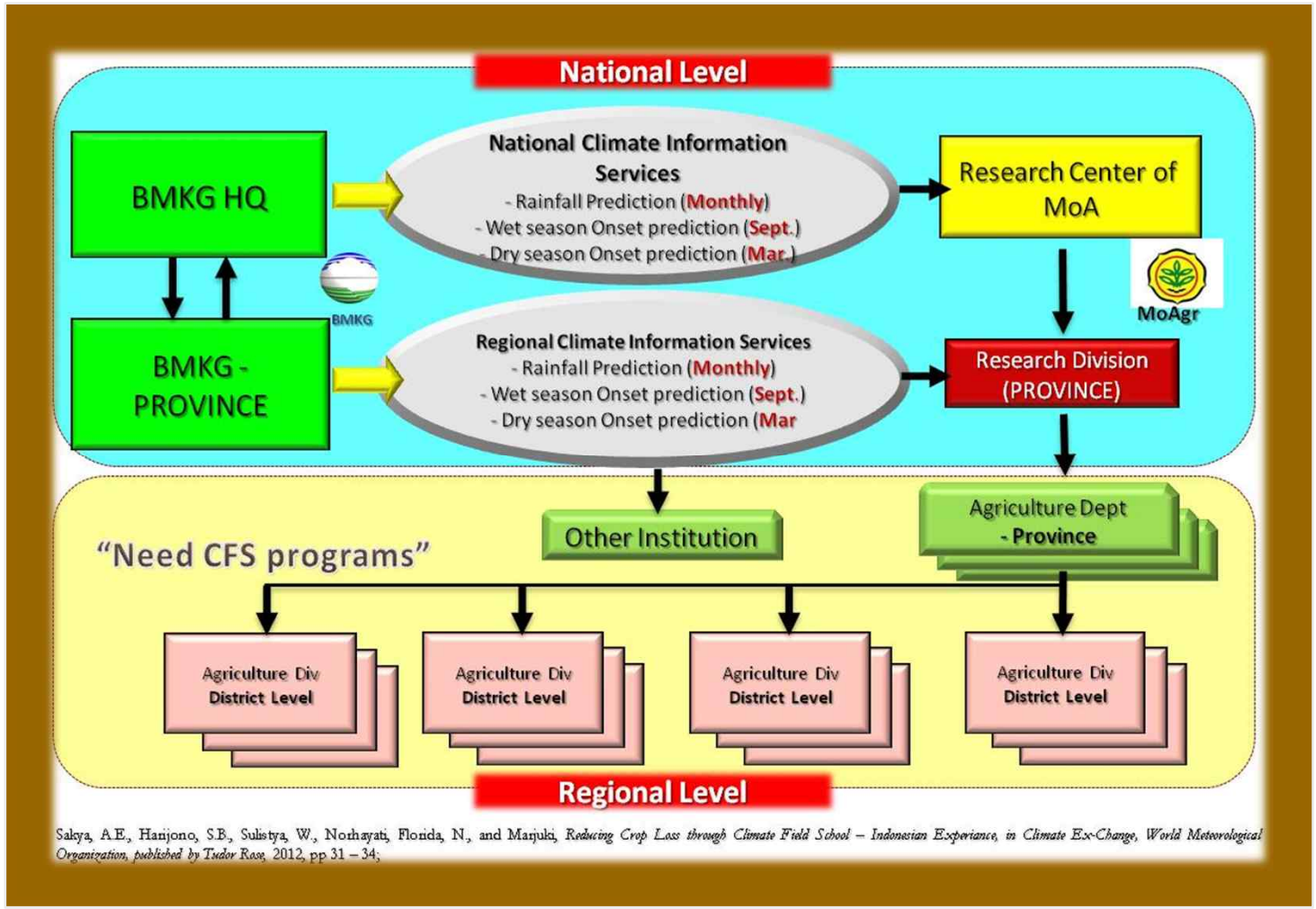
LESSON LEARNED

Climate Field Schools



Sakya, A.E., Harijono, S.B., Sulistya, W., Nurhayati, Florida, N., and Marjuki, *Reducing Crop Loss through Climate Field School – Indonesian Experiance, in Climate Ex-Change, World Meteorological Organization, published by Tudor Rose*, 2012, pp 31 – 34;

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LESSON LEARNED

Climate Field Schools

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CONCLUSION

Remarks

1. **Indonesia**, as an archipelagic country and lays right on the tropical line, is **highly vulnerable** to extreme climate, none-the-less DROUGHT;
2. BMKG – within its mandate – establishes **the Indonesian Climate Early Warning System** (Ina-CEWS) completing the existence EWS;
3. Potential drought monitoring activities produces: **Soil Water Content, Standard Precipitation Index and Dry Spell** Information disseminated through ***Five-In-One*** System;
4. Succesful CFI's activities facilitate end-users to decipher technical difficulty in translating the information, including drought, onto practical farming purposes.

THANK YOU

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