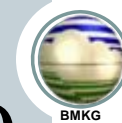


# CASE STUDY *PLAN*

## SOCIO-ECONOMIC BENEFITS OF CLIMATE INFORMATION TO AGRICULTURAL SECTOR



Mugni Hadi Hariadi

Indonesia

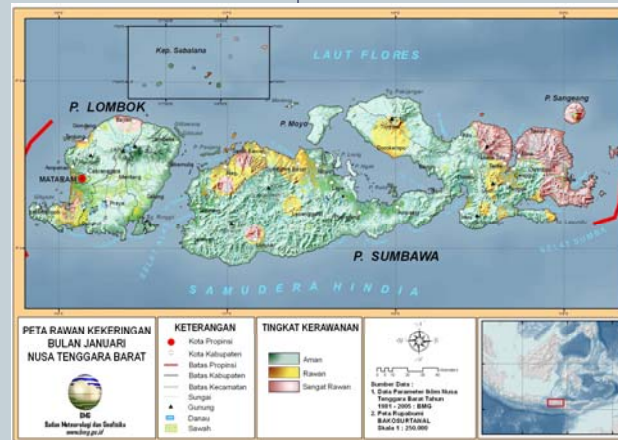
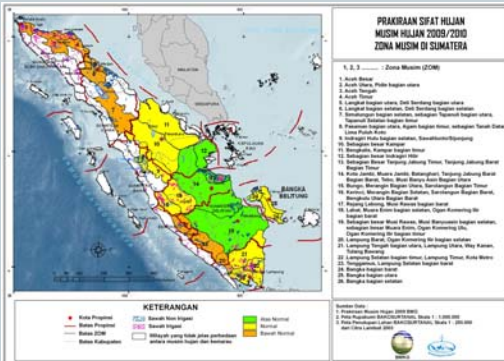
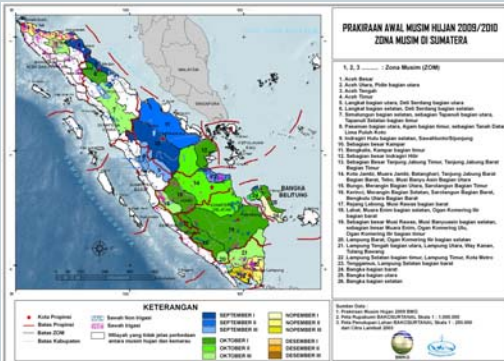
# SERVICES AND PRODUCTS



BMKG

- Seasonal Rainfall Prediction
- Monthly Rainfall Prediction

- Droughtness Potential analysis Study
- Land Suitability for Agriculture
- **Climate Field School**



# Recommendation for Agriculture Activities



No.	District	Type	Area	Activities	Growing Season (Climatology)	Growing Season (2009)
1	Lombok Barat	C3	Bagian timur	1 PS + 1 PL	Jan, Apr	Jan, Apr
		D3	Bagian utara dan selatan	1 PS atau 1 PL	Jan	Jan
		D4	Sekitar Mataram	1 PS atau 1 PL	Jan	Jan
2	Lombok Tengah	C3	Bagian utara dan tengah	1 PS + 1 PL	Jan, Apr	Jan, Apr
		D3	Bagian selatan	1 PS atau 1 PL	Jan	Jan
3	Lombok Timur	B2	Sekitar Sambelia	2 PS + 1 PL	Des, Mar, Jun	Des, Mar, Jun
		C3	Sebagian bagian utara	1 PS + 1 PL	Jan, Apr	Jan, Apr
		D3	Sebagian besar	1 PS atau 1 PL	Jan	Jan
4	Sumbawa	D3	Bagian barat dan sekitar Sumbawa Besar	1 PS atau 1 PL	Jan	Peb
		D4	Sebagian besar	1 PS atau 1 PL	Jan	Peb
5	Dompu	D3	Bagian selatan	1 PS atau 1 PL	Peb	Peb
		D4	Sebagian besar	1 PS atau 1 PL	Peb	Peb
		E	Sebagian bagian timur	1 PL	Peb	Peb
6	Bima	D3	Sekitar Cenggu dan Owimboo	1 PS atau 1 PL	Peb	Peb
		E	Sebagian besar	1 PL	Peb	Peb

# Drought in West Java 2003



Date	Loss (M IDR)
2003/08/15	500000
2003/08/01	4600
2003/08/12	4000
2003/06/05	185000
2003/08/01	111100
	804700

# Rainy season 2009-2010



/ Home / Nasional

KEKERINGAN

## Jangan Memaksa Menanam Padi



KOMPAS/RONY ARIYANTO NUGROHO

JUMAT, 17 JULI 2009 | 04:28 WIB

**JAKARTA, KOMPAS.com** — Direktur Jenderal Sumber Daya Air Departemen Pekerjaan Umum Iwan Nursyirwan menegaskan, karena musim kemarau sudah datang, sebaiknya petani mematuhi pola tanam supaya nantinya tidak terjadi kegagalan panen.

"Jangan dipaksakan untuk menanam padi, jangan ada lagi gadu nekat. Lebih baik petani menanam palawija," kata Iwan, Kamis (16/7), dalam Jumpa Pers Antisipasi Kekeringan Tahun 2009.

Presiden Susilo Bambang Yudhoyono sesuai memimpin rapat koordinasi terkait dampak El Nino di Kantor Presiden, Kamis,

## Dana El Nino dari APBN 2010

Senin, 27 Juli 2009 - 14:30 wib

Ahmad Nabhani - Okezone

TEXT SIZE:

**JAKARTA** - Pemerintah menegaskan dana antisipasi menghadapi El Nino sebesar Rp2 triliun-Rp3 triliun tidak dipungut dari setiap departemen terkait. Namun dana yang disiapkan pemerintah secara khusus untuk menjaga stok dan stabilitas pangan, yang diambil dari APBN 2010.

"Dana persiapan El Nino tidak ditarik dari departemen, karena dana dari departemen adalah program reguler," kata Deputy Bidang Koordinasi Pertanian dan Kehutanan Menko Perekonomian Bayu Krisnamukti kepada wartawan, di Gedung Depkeu, Jakarta, Senin (27/7/2009).

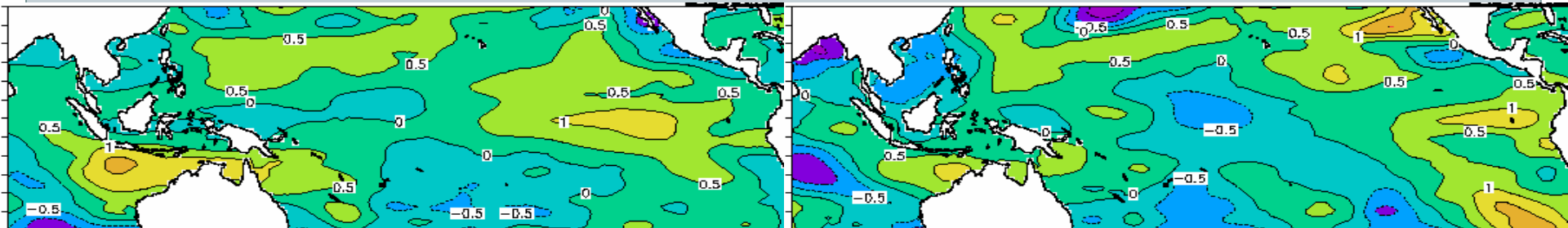
Dalam mengantisipasi dampak El Nino ke depan yang sudah disiapkan pemerintah sejak Maret, sudah termasuk pasokan atau cadangan beras pemerintah sebesar 1,5 juta ton. Di mana



Rupiah. Foto: Heru Haryono/okezone.com

Juli 2009 – Juli 2006

Juli 2009 – Juli 2002



# Case Study

## Plan



Sector:	Agriculture
Case Study Name:	SOCIO-ECONOMIC BENEFITS OF CLIMATE INFORMATION FOR AGRICULTURAL SECTOR
Case Study Description:	This study analysis is conducted to estimate the benefits of climate information for agriculture sector.
Location:	Indramayu District (West Java)
Tools Employed:	Cost-Loss Ratio situation
Description of Application:	This study used historical climate extreme event (drought and flood) and literature study to calculate the benefits of the information.
Outcomes of Application:	Benefits value in IDR of climate information to encourage the policy maker and users in agriculture sector in responding the climate condition by using seasonal rainfall prediction information.
Cost / Benefits:	This study concludes the lost in agriculture sector by extreme climate events and cost production of climate information.
<b>Characteristics of the Case Study:</b>	
Consultation Mechanisms:	Experts from Meteorological Agency and experts from university

# Study on Climate Change Vulnerability in Indonesia

## (2010 – 2014 Project)



Climate change has specific impact when comes to local due to specific condition of social economic and the geographic and geological conditions.

The former cause is related to the community adaptive capacity, while the latter is related to the specific nature of the locality. Both together comprise to the specific local vulnerability.

However, there is no specific and adequate study to address the regional capacity and vulnerability due to climate change at adequate scale of resolution that could be used as the base foundation of adaptation and mitigation of climate change.

Java as the most densely populated island of the world and the center of economic activity of the country is extremely vulnerable to natural disasters.

At the end, many socio economic activities shall gain benefit from the outcome of the project especially for disaster risk reduction and for preventing losses from the most vulnerable (lack of resources and adaptive option) and poor section of the society thus reducing the poverty.

Location : Java island (Pilot project)

### Overall Goal

*Climate Change Vulnerability study will be base information for all sector for their adaptation and mitigation policy.*

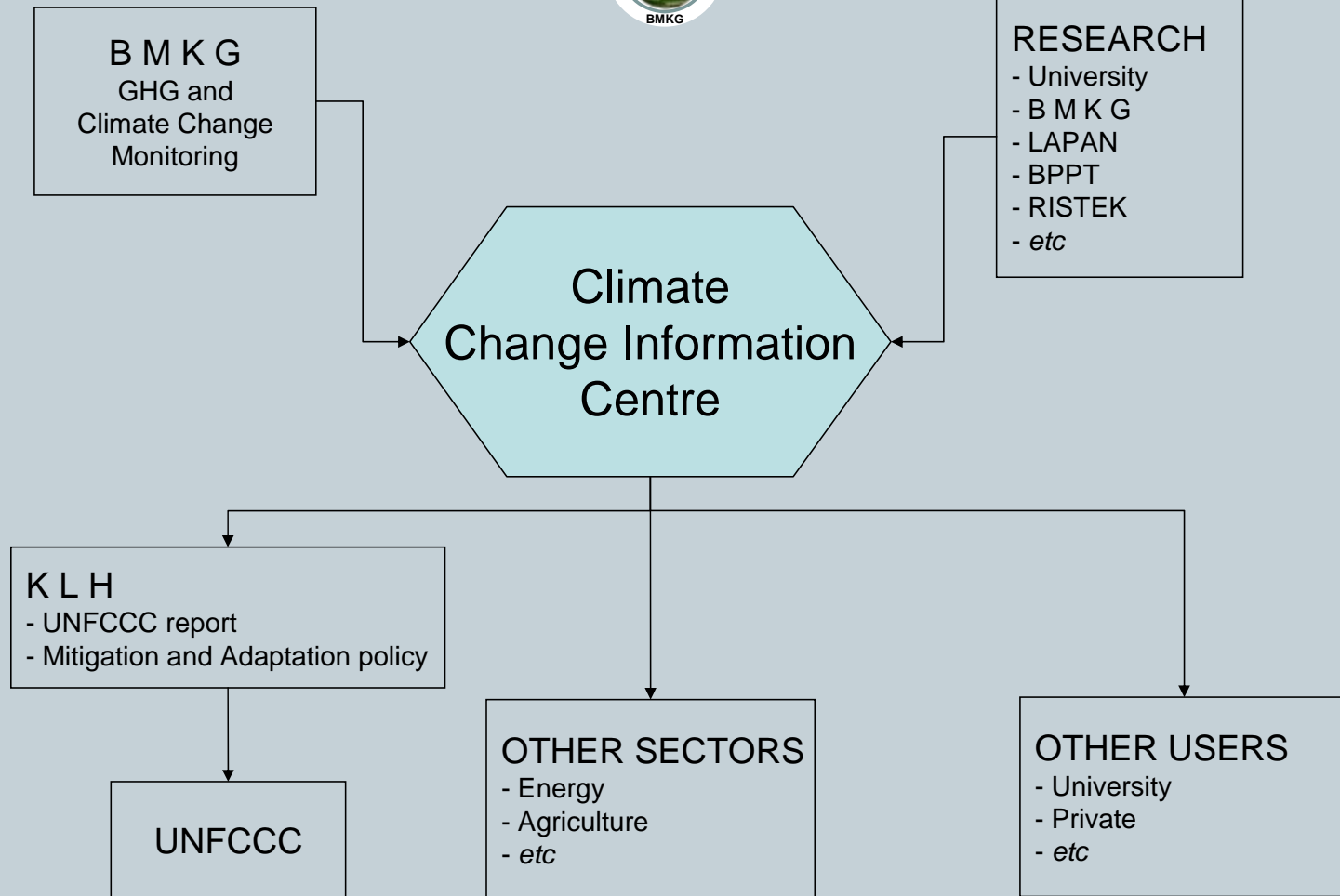
The availability of vulnerability map of Indonesia will allow better spatial planning, disaster risk reduction activity, poverty reduction and optimal actions in adapting and mitigating risks related to climate change.

### Project Purpose

Availability of vulnerability map of Indonesia against thread of climate change in the form of climate hazard due to flood, drought, tropical cyclone, tornado, land slide, sea level rise and sea wave.

Output in the form of map, publication, workshop and high degree trained expert of climate change.

# Centre for Climate Change & Air Quality



## The Role of Climate Change Information Centre in National Scale



# What is **Vulnerability** ?



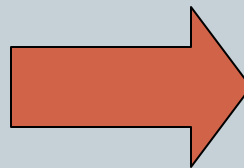
**Vulnerability = f (exposure, sensitivity, adaptive capacity)**

**Exposure :**

- ✦ Climate variation trend
- ✦ Climate extreme trend analysis
  - Droughtness
  - Flood
  - Landslide

**Sensitivity and adaptive capacity :**

- ✦ Population
- ✦ Levels of education
- ✦ Technology



- Needs multi discipline Study
- Every sector have different factors

# Flood



Flood in Jakarta 11-02-2007

Loss : 8 T IDR ~ 800 M USD

# Case Study

## Plan



Sector	9 Sectors
User	Decisions maker
Case Study Name:	BENEFITS COST ANALYSIS OF CLIMATE CHANGE VULNERABILITY STUDY IN INDONESIA
Case Study Description:	This study analysis is conducted to estimate the cost benefits of climate change vulnerability information for 9 sectors.
Location:	Java
Tools Employed:	Benefits cost Analysis
Description of Application:	This study used historical climate extreme event (drought and flood) and literature study to calculate the benefits of the information.
Outcomes of Application:	Benefits value in IDR of climate information to encourage the decision makers and users in all sectors in adaptation and mitigation policy
Cost / Benefits:	This study concludes the lost in all sectors by extreme climate events and cost production of the information.
<b>Characteristics of the Case Study:</b>	
Consultation Mechanisms:	Experts from Meteorological Agency and experts from university

A photograph of a sunset. The sun is low on the horizon, partially obscured by the dark silhouette of a large tree in the foreground. The sky is a mix of orange, yellow, and grey, with some clouds. In the background, a body of water is visible under the dim light of the setting sun. The overall mood is peaceful and contemplative.

**THANK YOU**