



DEPARTMENT OF ENERGY AND MINERAL RESOURCES
DIRECTORATE GENERAL OIL AND GAS

INDONESIA'S BIOFUELS POLICIES AND PROGRAM

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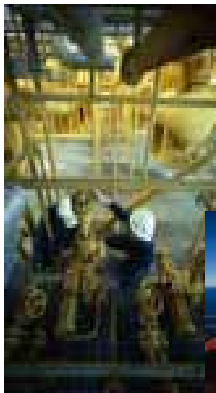


OUTLINE

- **GLOBAL ENERGY CONDITION**
- **ENERGY SECURITY**
- **NATIONAL ENERGY POLICY**
- **BIOFUEL DEVELOPMENT**
- **MANDATORY FOR BIOFUEL UTILIZATION**
- **PROGRESS OF BIOFUEL DEVELOPMENT**



GLOBAL ENERGY CONDITION

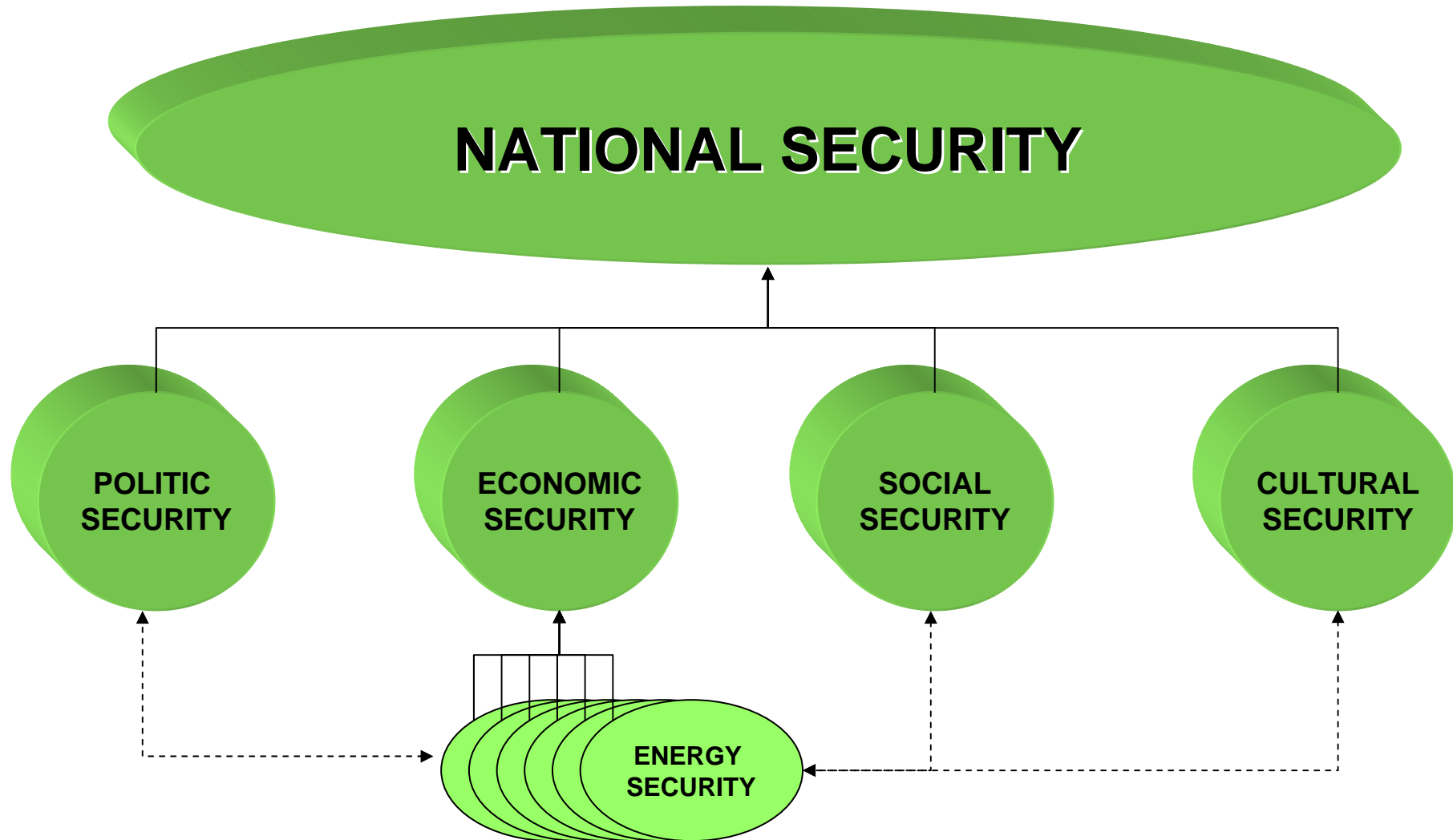


GLOBAL ENERGY CONDITION

- ❖ Global energy consumption increases at an average of 2% per year;
- ❖ Fossil energy resources, mainly oil still dominates the global energy mix, and this position is not expected to change until 2030;
- ❖ Oil price fluctuation heavily influences the global economy;
- ❖ Alternative energy utilization should be optimized, through global partnership, while still paying attention to environmental welfare, not disrupting the food industry and creating jobs that will alleviate poverty.

ENERGY SECURITY

ENERGY SECURITY CONCEPT



ENERGY SECURITY

ENVIRONMENTAL ISSUES

Energy security system :

- Ability to dynamically respond to global energy changes (external)
- Independency to secure energy availability (internal)

**SUPPLY SIDE
POLICY**

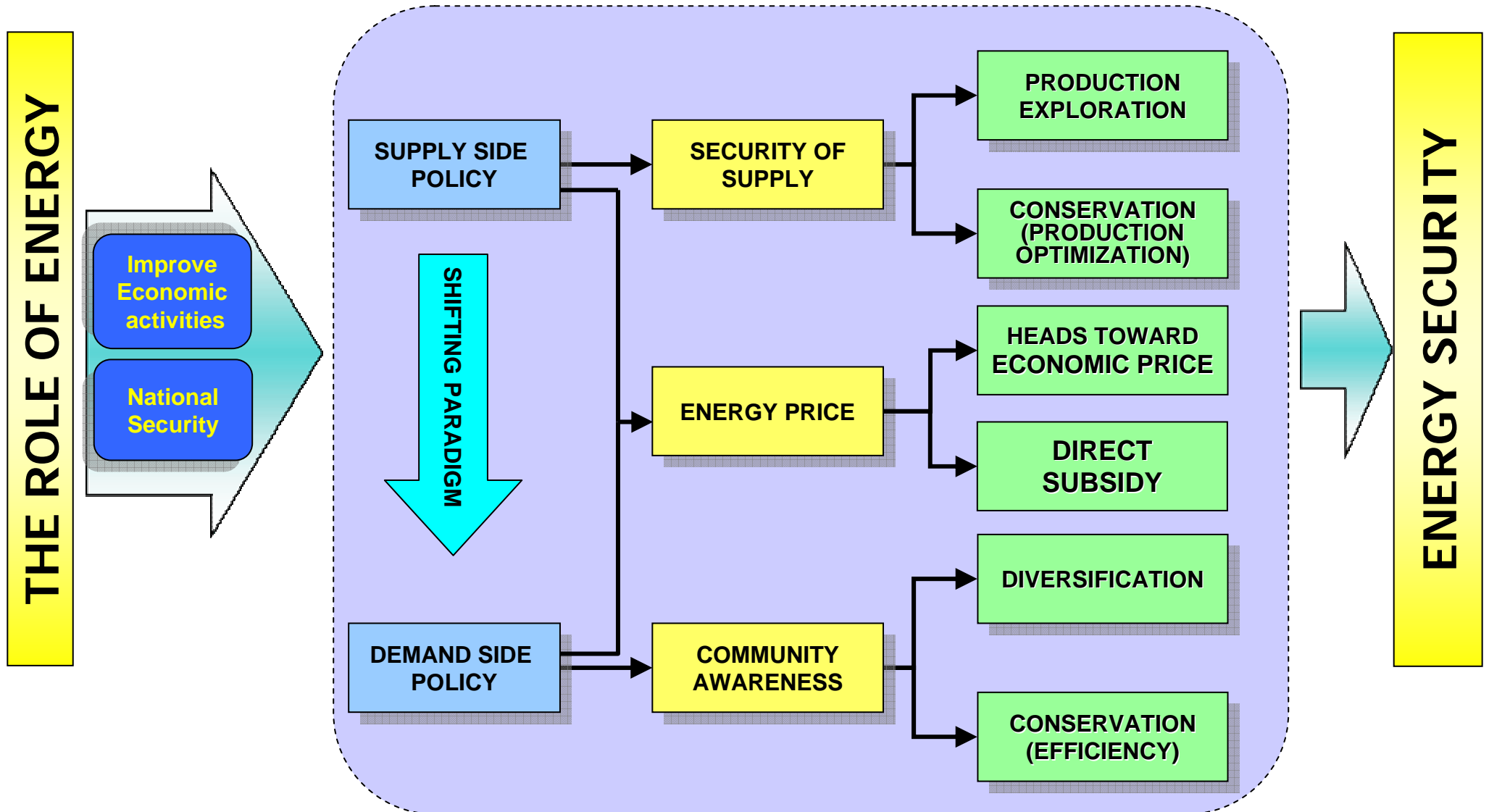
**DEMAND SIDE
POLICY**



NATIONAL ENERGY POLICY



INDONESIA'S ENERGY POLICY



Law No. 30/2007 concerning ENERGY

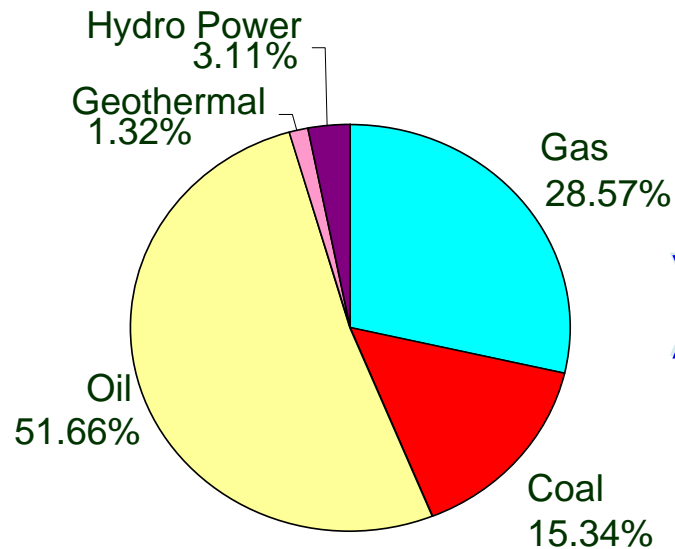
ENERGY DIVERSIFICATION

- Central and Local Government have an obligation to increase supply and utilization of new energy and renewable energy, in their scope of authority.
- Energy supply from new energy and renewable energy resources that is carried out by corporate, and private may gain facilities and/or incentives from Central Government and/or Local Government in their scope of authority for specific period of time until it meets its economical value.

TARGET OF ENERGY MIX

(Presidential Regulation No. 5 of 2006)

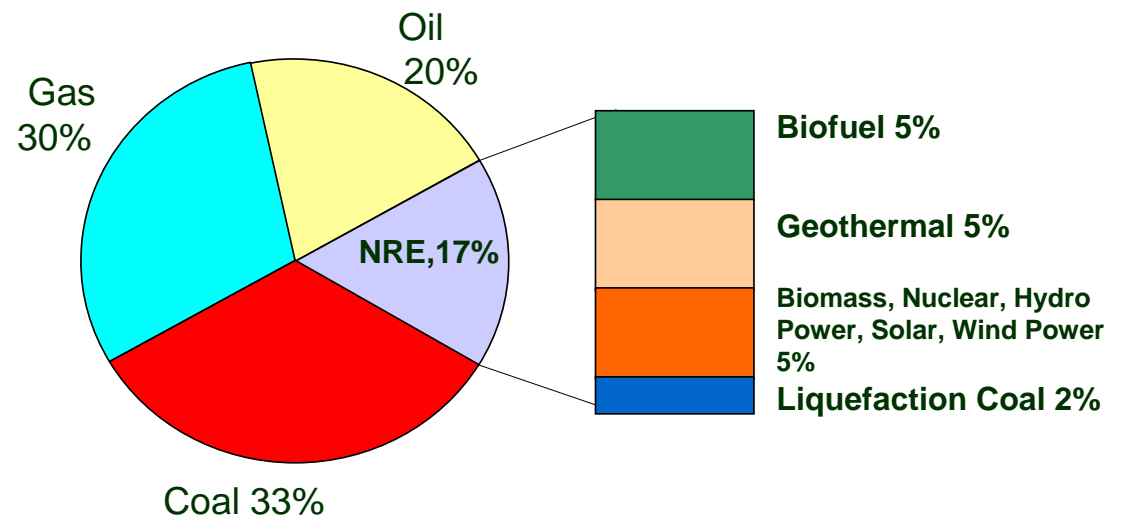
Primary Energy Mix 2006



Energy Elasticity = 1,8

NON FOSSIL ENERGY < 5%

Energy Mix 2025



Energy Elasticity < 1

**NON FOSSIL ENERGY/
New & Renewable Energy : 17 %**

ENERGY DIVERSIFICATION PROGRAM

ENERGY		Household	Transportation	Industry	Power Plant
• Gas					
➤	LPG				-
➤	CNG				
• Coal					
➤	Coal		-		
➤	Briquette		-		-
➤	Liquefied Coal				
➤	Gasified Coal	-			
• Biofuel					
➤	Bio-ethanol			-	
➤	Bio-diesel				
➤	Bio-oil				
• Geothermal			-	-	
• Other Renewable Energy					
➤	Biomass		-	-	
➤	Nuclear	-	-	-	
➤	Hydro	-	-	-	
➤	Solar			-	
➤	Wind	-	-	-	
➤	Coal Bed Methane (CBM)				
➤	Hydrogen / Fuel Cell	-		-	
➤	Oil Shale/Oil Sand	-			
➤	Biogenic Gas		-	-	

REGULATIONS related to BIOFUEL DEVELOPMENT

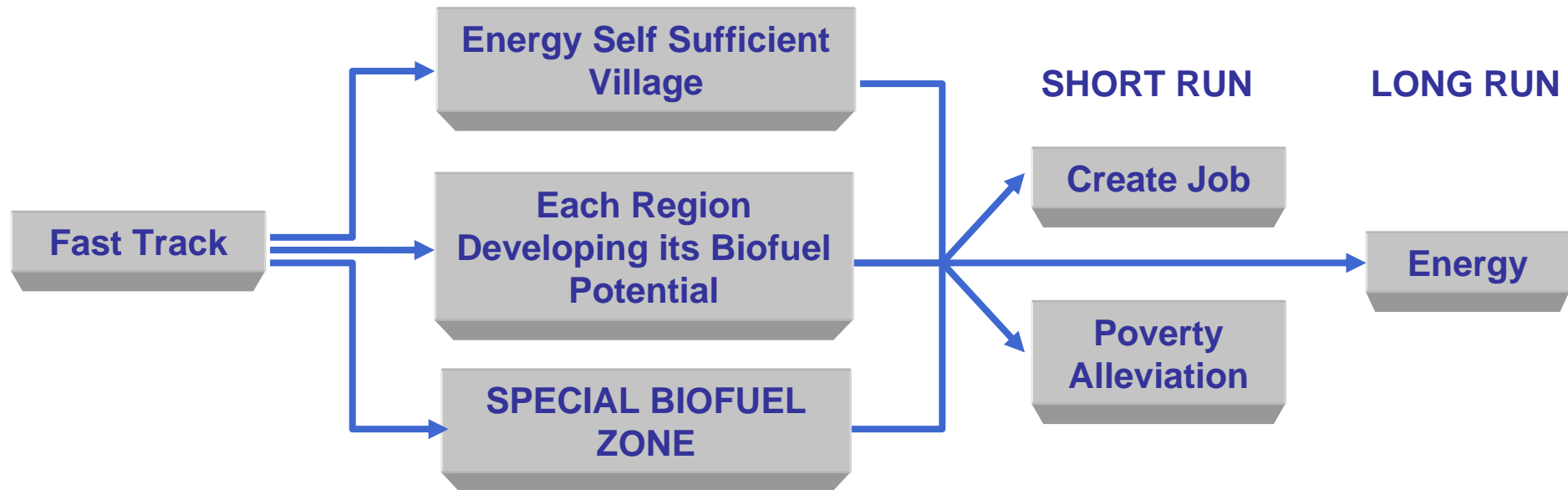
1. Law No. 22/2001 on Oil and Natural Gas
2. Law No. 30/2007 on Energy
3. Presidential Regulation No. 36/2004 on Oil and Natural Gas Downstream Activities
4. Presidential Regulation No. 5/2006 on National Energy Policy
5. Presidential Instruction No. 1/2006 on Supply and Utilization of Biofuel as Alternative Fuel
6. Presidential Decree No. 10/2006 on The Establishment of National Team for Biofuel Development
7. Estate Crop Law No. 18/2004
8. Government Regulation No. 1/2007 on Income Tax Facilities for Investment Activities in Specific Industries and/or Particular Region
9. Government Regulation No. 8/2007 on The Government Investment
10. Minister of Energy and Mineral Resources Decree No. 32/2008 on Supply, Utilization, Guideline and Procedure for Biofuel Businesses

REGULATIONS related to BIOFUEL DEVELOPMENT (continuation)

11. Minister of Finance Decree No. 117/PMK.06/2006 on Credit for the Development of Biofuel Energy and Plantation Revitalization
12. National Standard (SNI) for Biodiesel No. 04 – 7182 – 2006
13. National Standard (SNI) for Bioethanol No. 7390 – 2008
14. Director General for Oil and Gas Decree No. 3674K/24/DJM/2006 on Gasoline Specification for Domestic Market
15. Director General for Oil and Gas Decree No. 3675K/24/DJM/2006 on Diesel Fuel Specification for Domestic Market
16. Director General for Oil and Gas Decree No. 13483.K/24/DJM/2006 on Biodiesel Specification for Domestic Market
17. Director General for Oil and Gas Decree No. 23204.K/10/DJM.S/2008 on Bioethanol Specification for Domestic Market

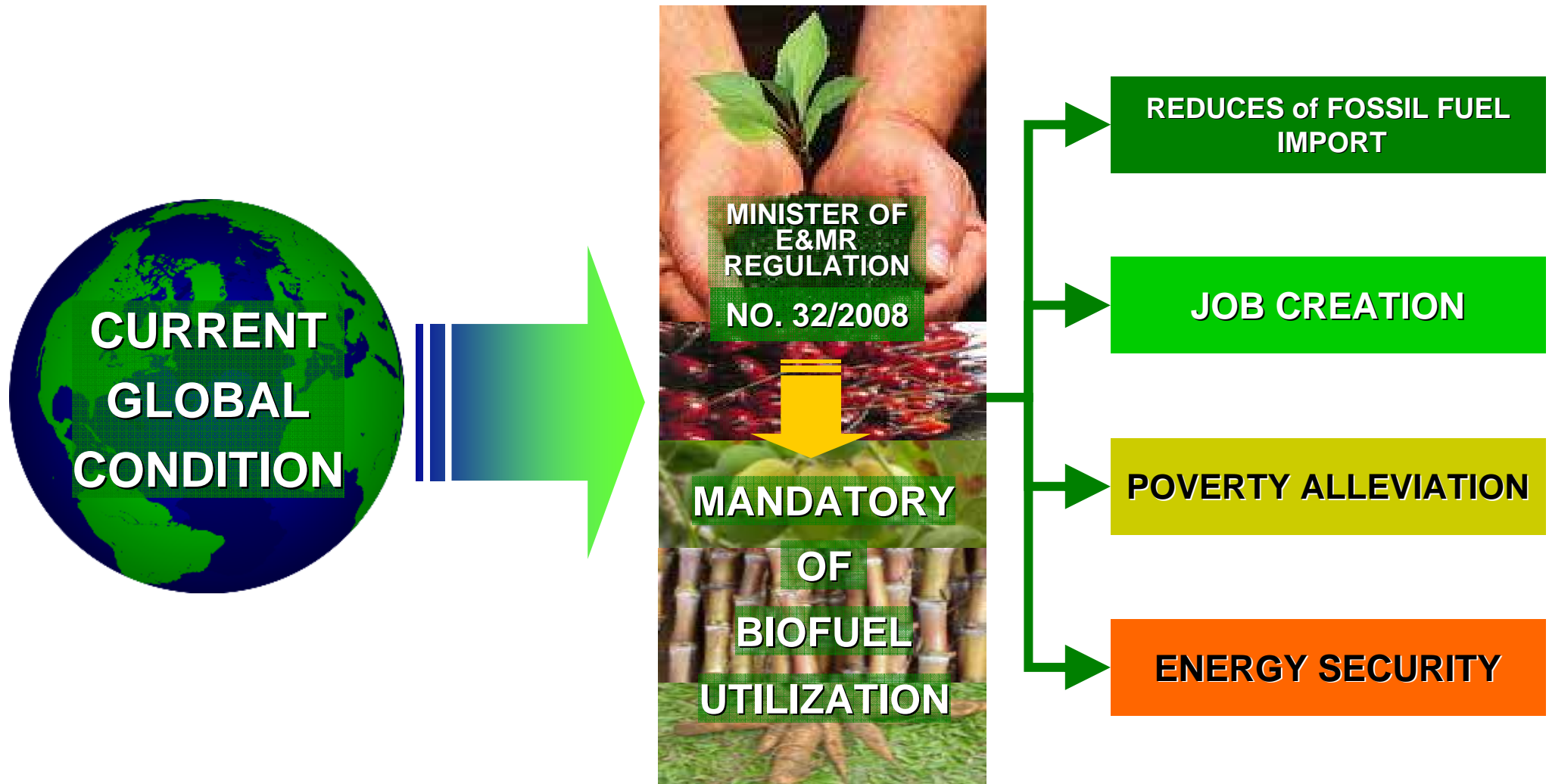
BIOFUEL DEVELOPMENT

FAST TRACK BIOFUEL DEVELOPMENT

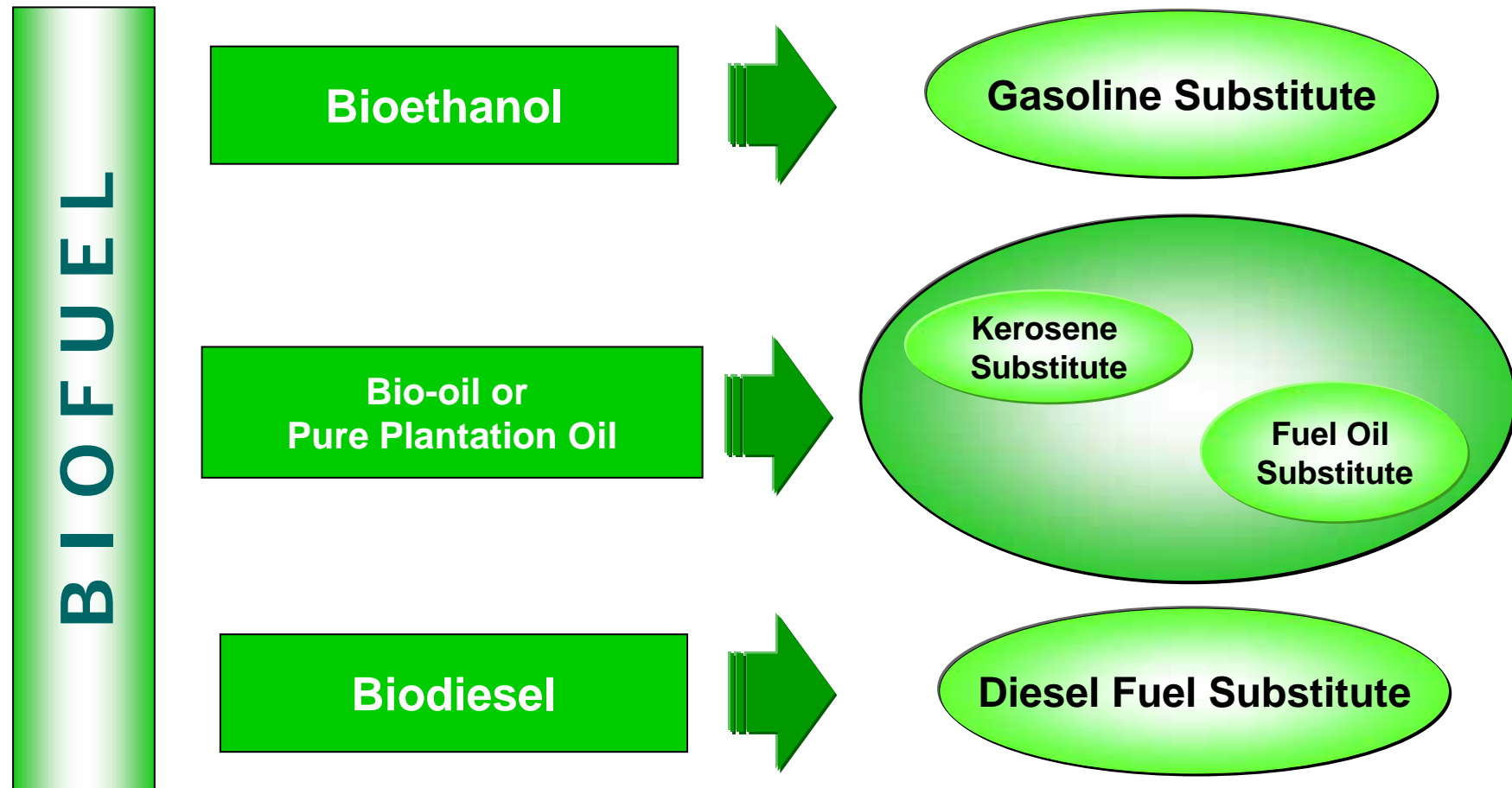


- Infrastructure
- Demplot
- On time schedule
- Explicit investment employment ratio

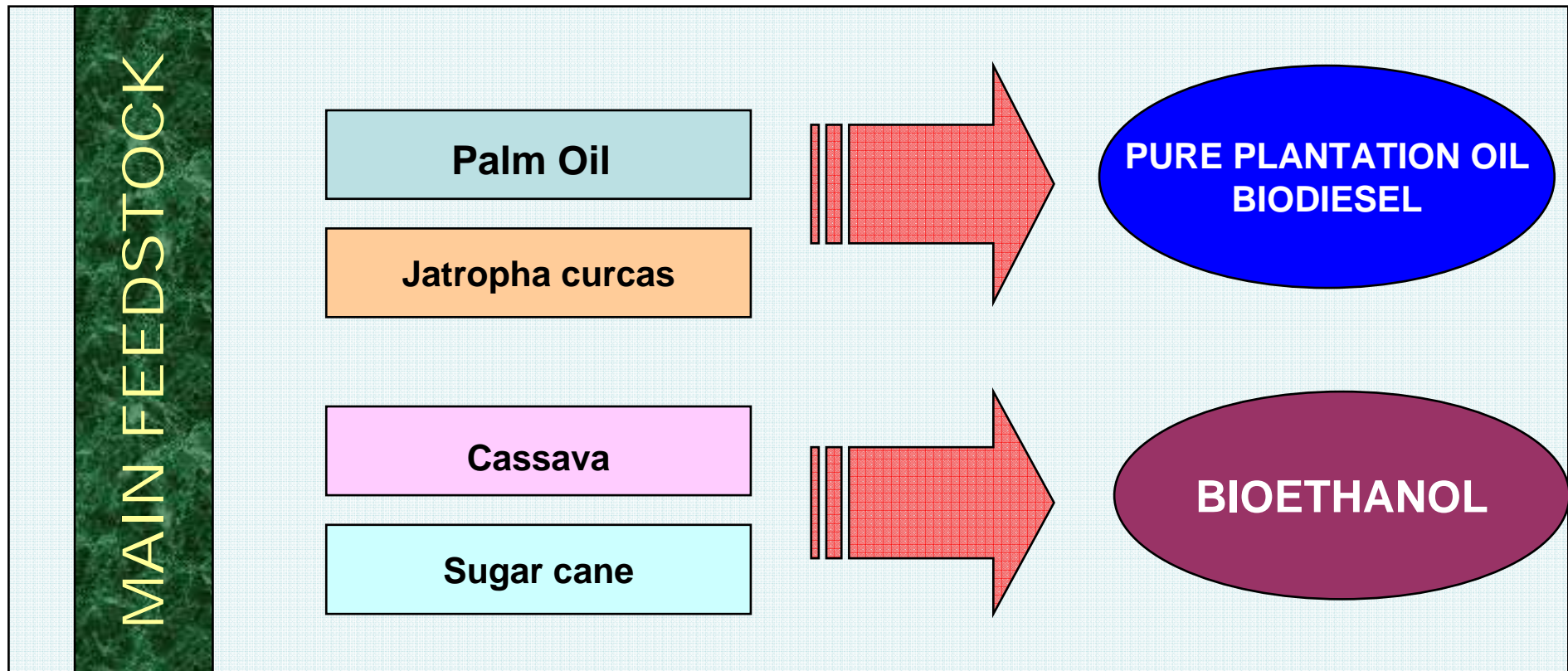
ENCOURAGING BIOFUEL UTILIZATION



BIOFUEL PRODUCT



BIOFUELS FEEDSTOCK



Year 2009 Indonesia's CPO Production : more than 18 milion ton
Domestic Consumption for food : around 5 milion ton
Domestic Consumption for biodiesel : around 2 - 3 milion ton
Biodiesel development in Indonesia will not interfere food security

**Indonesia develop in the mean time non food feedstock for biofuel
(waste, microalgae, hutaulo etc)**

ROADMAP FOR BIOFUEL DEVELOPMENT

Year	2005-2010	2011-2015	2016-2025
Biodiesel	Biodiesel Utilization 10% of Diesel Fuel Consumption 2.41 million kL	Biodiesel Utilization 15% of Diesel Fuel Consumption 4.52 million kL	Biodiesel Utilization 20% of Diesel Fuel Consumption 10.22 million kL
Bioethanol	Bioethanol Utilization 5% Gasoline Consumption 1.48 million kL	Bioethanol Utilization 10% Gasoline Consumption 2.78 million kL	Bioethanol Utilization 15% Gasoline Consumption 6.28 million kL
Bio-oil - Bioterokerosene - Pure Plantation Oil for Power Plant	Bioterokerosene Utilization 1 million kL PPO Utilization 0.4 million kL	Bioterokerosene Utilization 1.8 million kL PPO Utilization 0.74 million kL	Bioterokerosene Utilization 4.07 million kL PPO Utilization 1.69 million kL
Biofuel	Biofuel Utilization 2% of energy mix 5.29 million kL	Biofuel Utilization 3% of energy mix 9.84 million kL	Biofuel Utilization 5% of energy mix 22.26 million kL

MANDATORY FOR BIOFUEL UTILIZATION

MANDATORY for **BIODIESEL** UTILIZATION (MINIMUM PERCENTAGE)

SECTOR	October 2008 till December 2008	January 2009	January 2010	January 2015**	January 2020**	January 2025**	REMARK
Household	-	-	-	-	-	-	Not determined yet
PSO Transportation	1 % (existing)	1 %	2,5 %	5 %	10 %	20 %	* Based on Total Needs
Non PSO Transportation	-	1 %	3 %	7 %	10 %	20 %	
Industry and Commercial	2,5 %	2,5 %	5 %	10 %	15 %	20 %	* Based on Total Needs
Power Plant	0,1 %	0,25 %	1 %	10 %	15 %	20 %	* Based on Total Needs

** Specification is adjusted in line with global specification and domestic interests

MANDATORY for **BIOETANOL** UTILIZATION (MINIMUM PERCENTAGE)

SECTOR	October 2008 till December 2008	January 2009	January 2010	January 2015**	January 2020**	January 2025**	REMARK
Household	-	-	-	-	-	-	Not determined yet
PSO Transportation	3 % (existing)	1 %	3 %	5 %	10 %	15 %	* Based on Total Needs
Non PSO Transportation	5 % (existing)	5 %	7 %	10 %	12 %	15 %	* Based on Total Needs
Industry and Commercial	-	5 %	7 %	10 %	12 %	15 %	* Based on Total Needs
Power Plant	-	-	-	-	-	-	Not determined yet

** Specification is adjusted in line with global specification and domestic interests

MANDATORY for **PURE PLANTATION OIL UTILIZATION** (MINIMUM PERCENTAGE)

SECTOR		October 2008 till December 2008	January 2009	January 2010	January 2015**	January 2020 **	January 2025 **	REMARK
Household		-	-	-	-	-	-	Not determined yet
Industry and Transportation (Low and medium speed engine)	Industry	-	-	1 %	3 %	5 %	10 %	
	Marine	-	-	1 %	3 %	5 %	10 %	
Power Plant		-	0,25 %	1 %	5 %	7 %	10 %	* Based on Total Needs

** Specification is adjusted in line with global specification and domestic interests

PROGRESS OF BIOFUEL DEVELOPMENT

PROGRESS OF BIOFUEL DEVELOPMENT IN INDONESIA

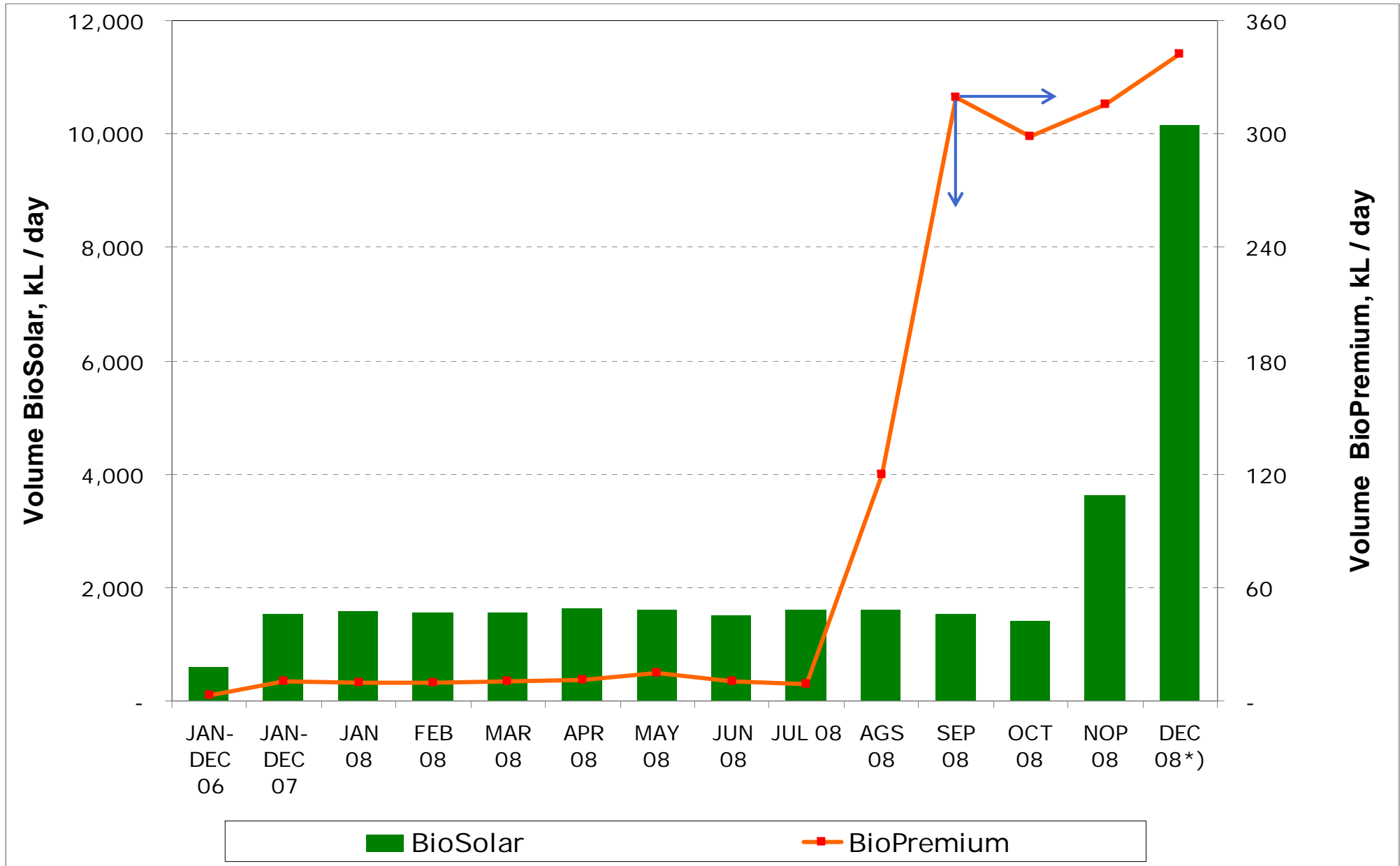
CURRENT:

- **Installed capacity for bioethanol production (status Aug, 2009): 270.537 kL/year;**
- **Installed capacity for biodiesel production (status Aug, 2009): 3.455.726 kL/year;**
- **Energy Self Sufficient Village (ESSV), status July, 2009: 237 villages (biofuel basis);**
- **Biofuel Power Generator by state owned electricity company (PLN) installed capacity (status Aug, 2009) = 116 MW;**
- **Biofuel utilization in Industry started November 11th, 2008 (5%).**

PROJECTION:

- **Bioethanol Development: projection up to 2010 \pm 4.000.000 kL/yr;**
- **Biodiesel Production: projection up to 2010 \pm 5.000.000 kL/year;**
- **Biofuel Power Generator by state owned electricity company (PLN): projection on 2009 – 2010 will use 220.000 kL Bio-Diesel at all Biofuel Power Generator in around Indonesia.**

BIOFUEL CONSUMPTION

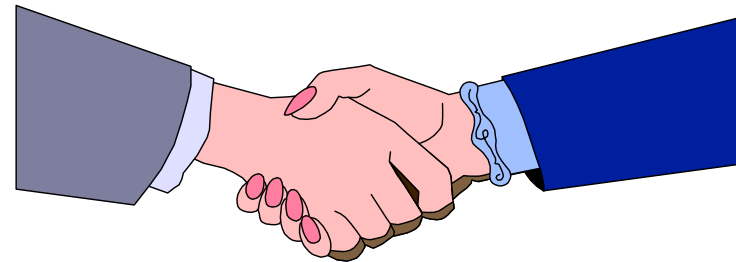


THE LAST PROGRESS ON BIOFUEL DEVELOPMENT POLICY

- The Government of Indonesia and The Parliament just agreed to give subsidy for subsidized biofuel if the price of biofuel higher than fossil fuel in fiscal year 2009;
- Value Added Tax Breaks (PPN DTP) for Biofuel Products in fiscal year 2009.



THANK YOU



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