



REPUBLIC OF INDONESIA

INDONESIA'S EXPERIENCE ON BIOFUELS DEVELOPMENT

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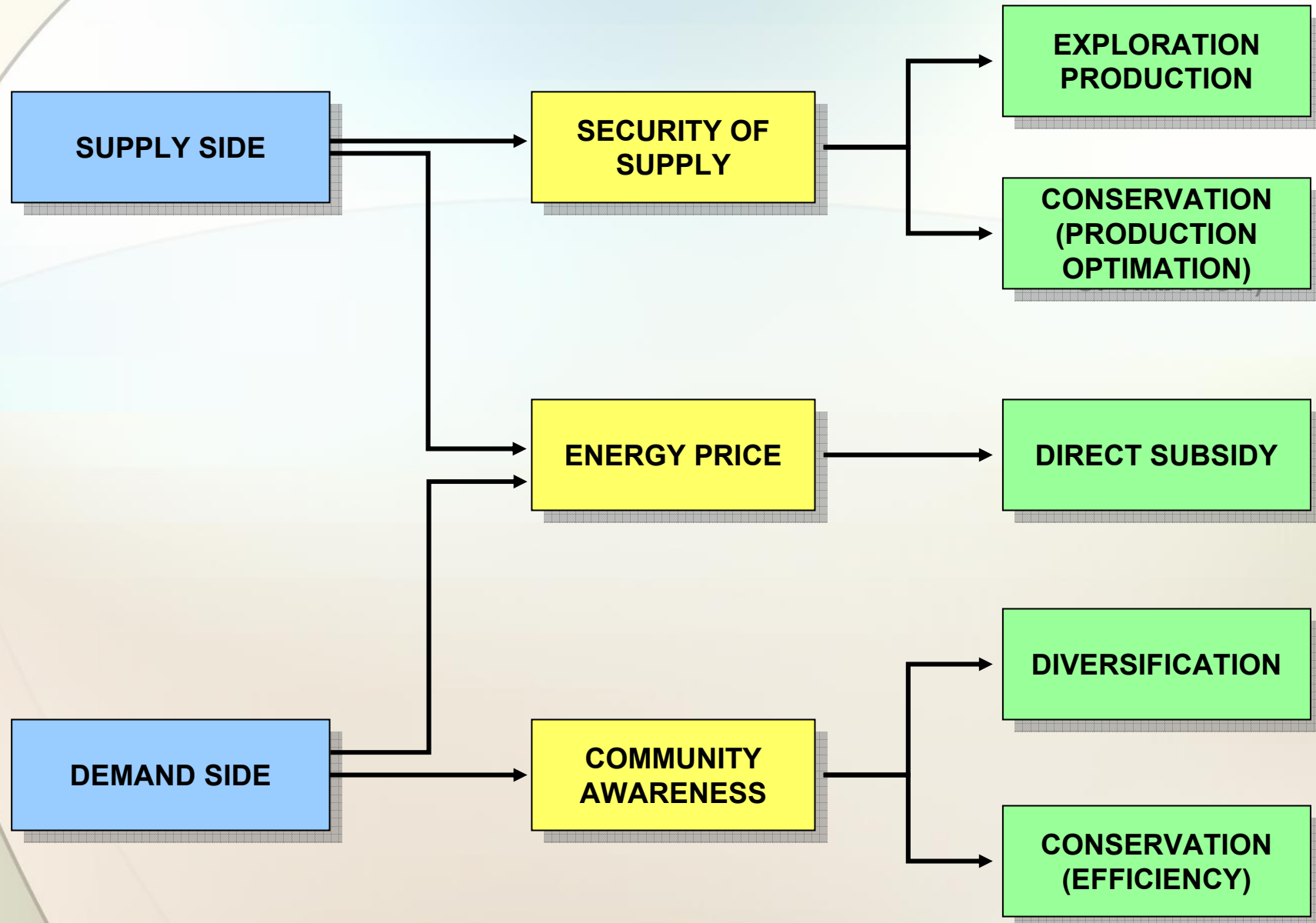
INTERNATIONAL BIOFUELS CONFERENCE

Brussels, July 5th 2007

OUTLINE

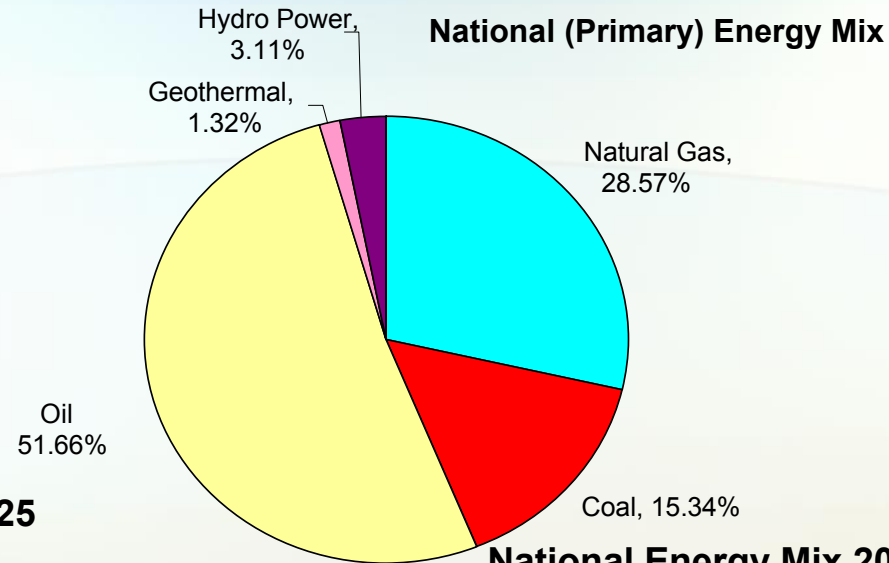
- I. INDONESIA'S ENERGY POLICY**
- II. WHY BIOFUELS?**
- III. TARGET, BLUEPRINT, AND ROADMAP OF BIOFUELS DEVELOPMENT**
- IV. PROGRESS OF IMPLEMENTATION ON BIOFUELS DEVELOPMENT PROGRAM**

INDONESIA'S ENERGY POLICY

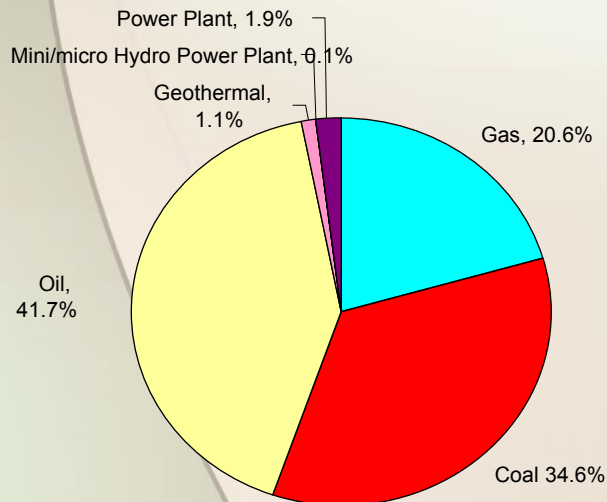


NATIONAL ENERGY POLICY (PRESIDENTIAL DECREE NO. 5 YEAR 2006)

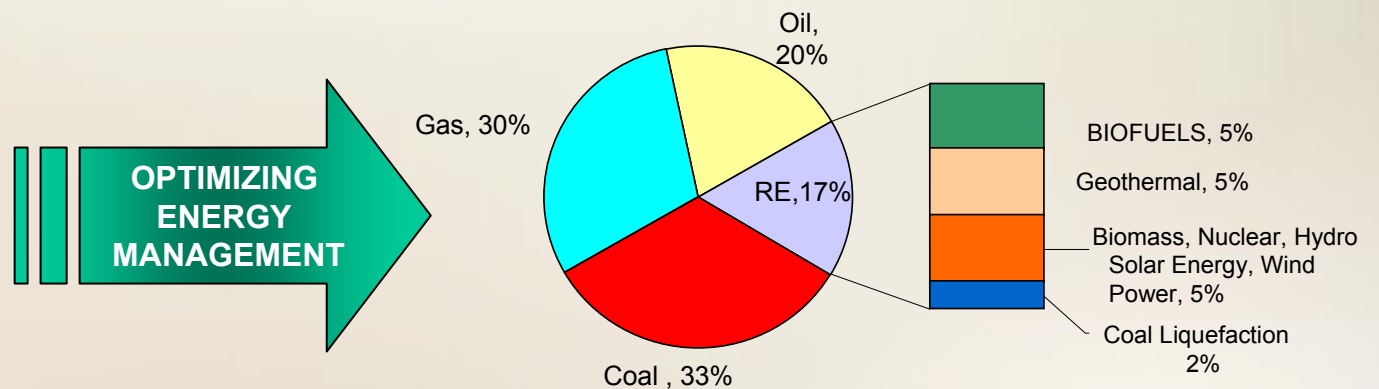
CURRENT ENERGY MIX (1 billion BOE)



National (Primary) Energy Mix of 2025 (BaU Scenario) (5 billion BOE)

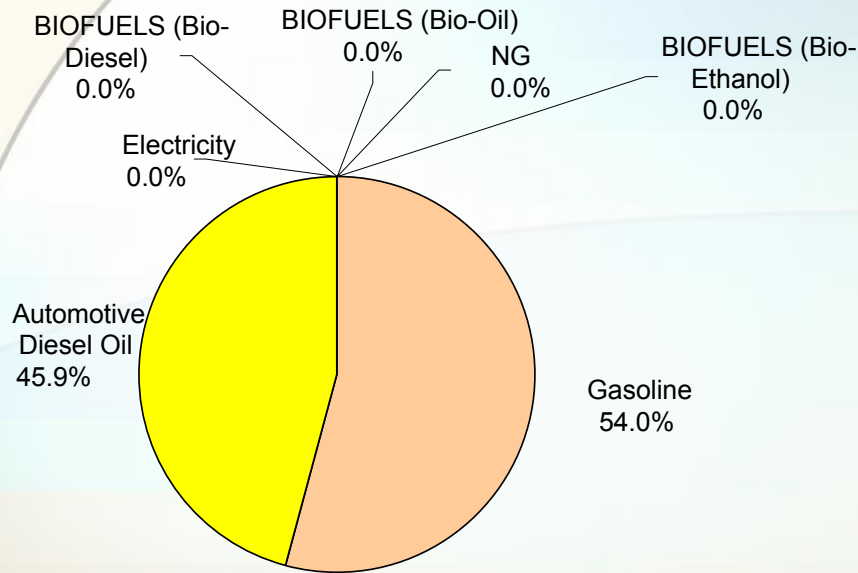


National Energy Mix 2025 (3 billion BOE) (Presidential Decree No. 5/2006)

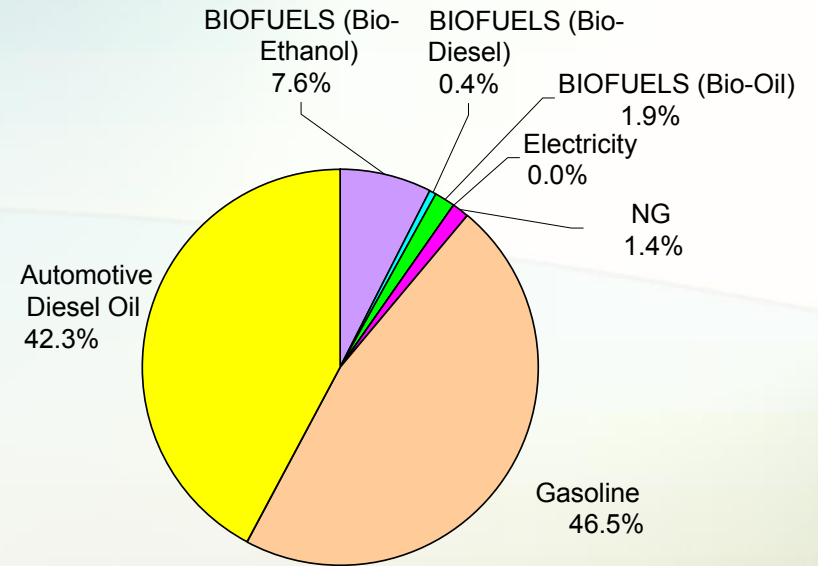


ENERGY MIX TARGET 2010

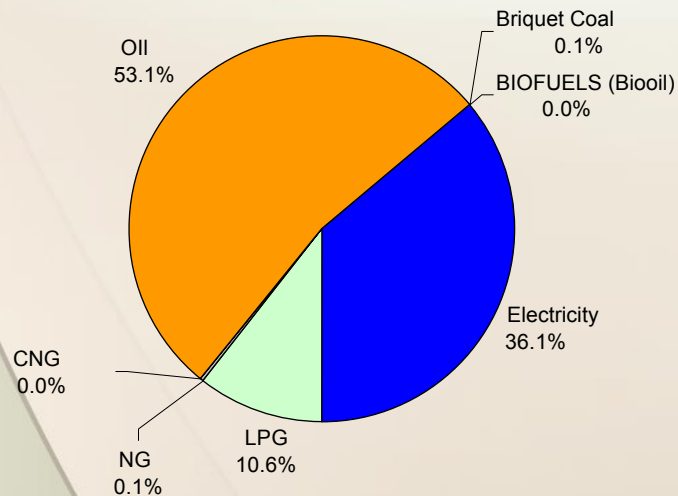
Transportation 2006



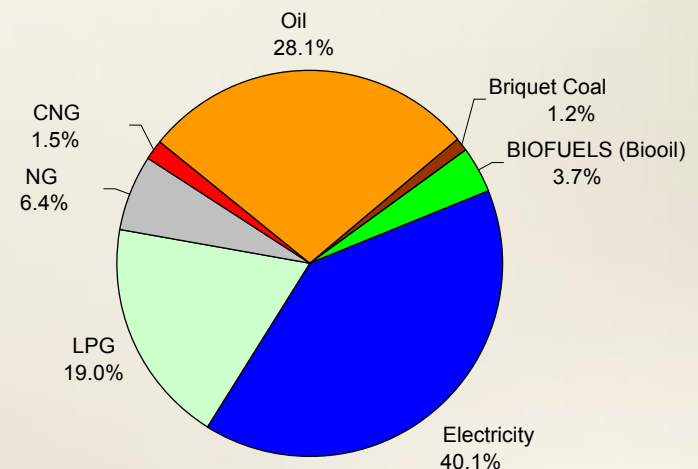
Transportation 2010



Household and Commercial 2006

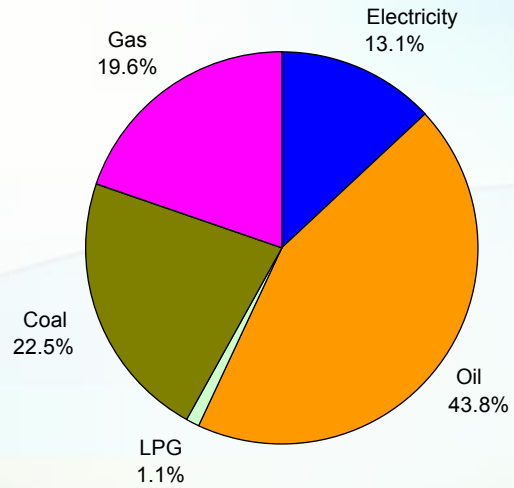


Household and Commercial 2010

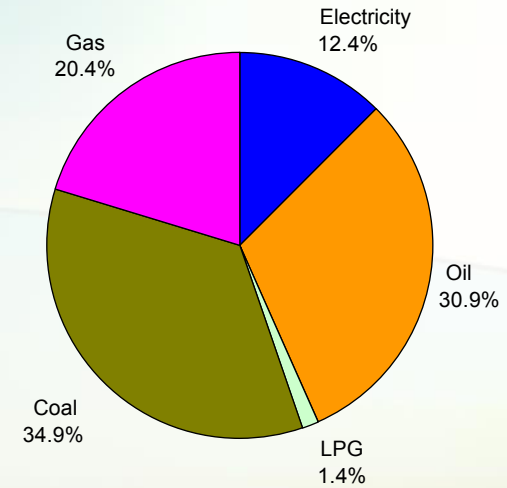


ENERGY MIX TARGET 2010 (continuation)

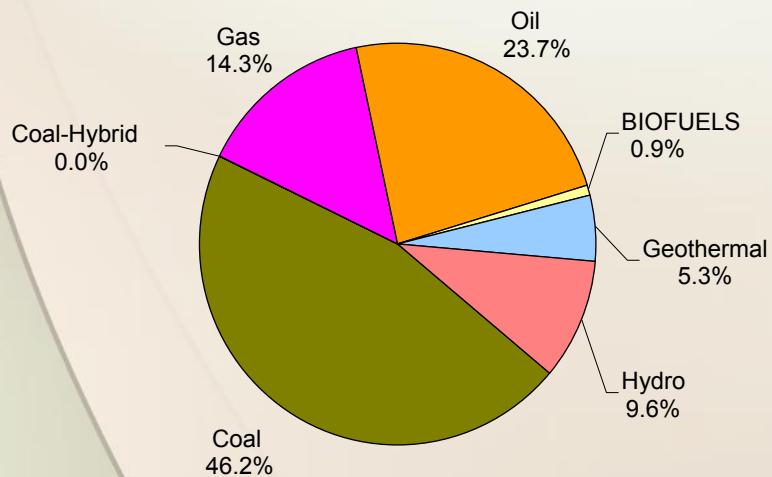
Industry 2006



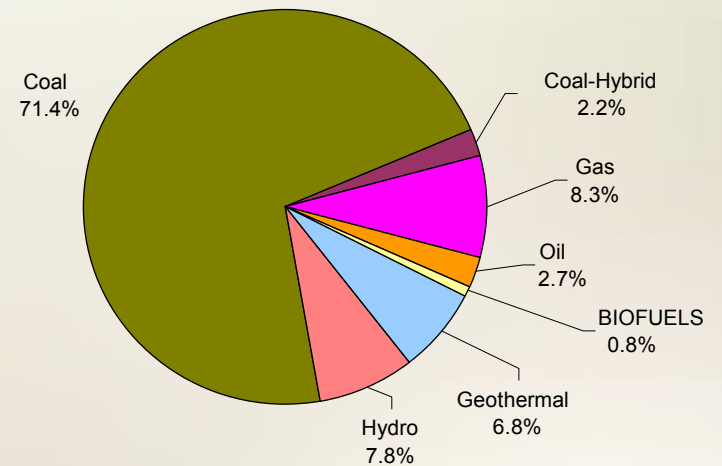
Industry 2010



Power Plant 2006



Power Plant 2010



WHY BIOFUELS ?

1. High potential for BIOFUELS feedstock supply and land availability that suitable for BIOFUELS plantation
2. Proven BIOFUELS technology by local potential (Engineering, Research and Development)
3. BIOFUELS industry allows community participations, including farmer
4. High number of unemployment (40 million people - 10 million is opened unemployment) and poverty (39.1 million people)
5. Opportunity of Regional Government's to increase economic development
6. Opportunity in exporting BIOFUELS products
7. BIOFUELS is a clean energy that can reduce CO₂ emission

BIOFUELS TARGET 2010

1. Job creation for 3.5 million unemployment
2. Increasing income for On-Farm and Off-Farm workers in BIOFUELS sector up to the Regional Minimum Payment
3. Development of BIOFUELS plantation in 5.25 million ha unused land
4. 1000 Energy Self Sufficient Villages and 12 Special BIOFUELS Zone
5. Reducing Fossil Fuel for transportation up to 10%
6. Reducing fuel subsidy

BIOFUELS FEEDSTOCK

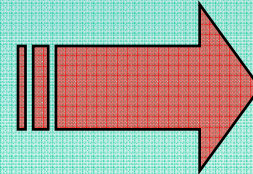
MAIN FEEDSTOCK

Palm Oil

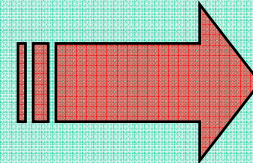
Jatropha curcas

Cassava

Sugar cane



BIOOIL
BIODIESEL



BIOETHANOL

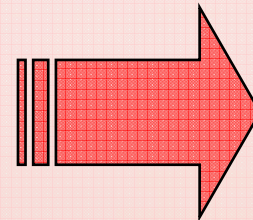
UNDER DEVELOPMENT

Coconut

Seed of Hevea
braziliancis

Aleurites molucana

Micro algae



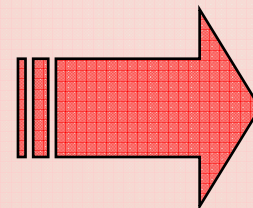
BIOOIL
BIODIESEL

Sweet sorghum

Sugar palm

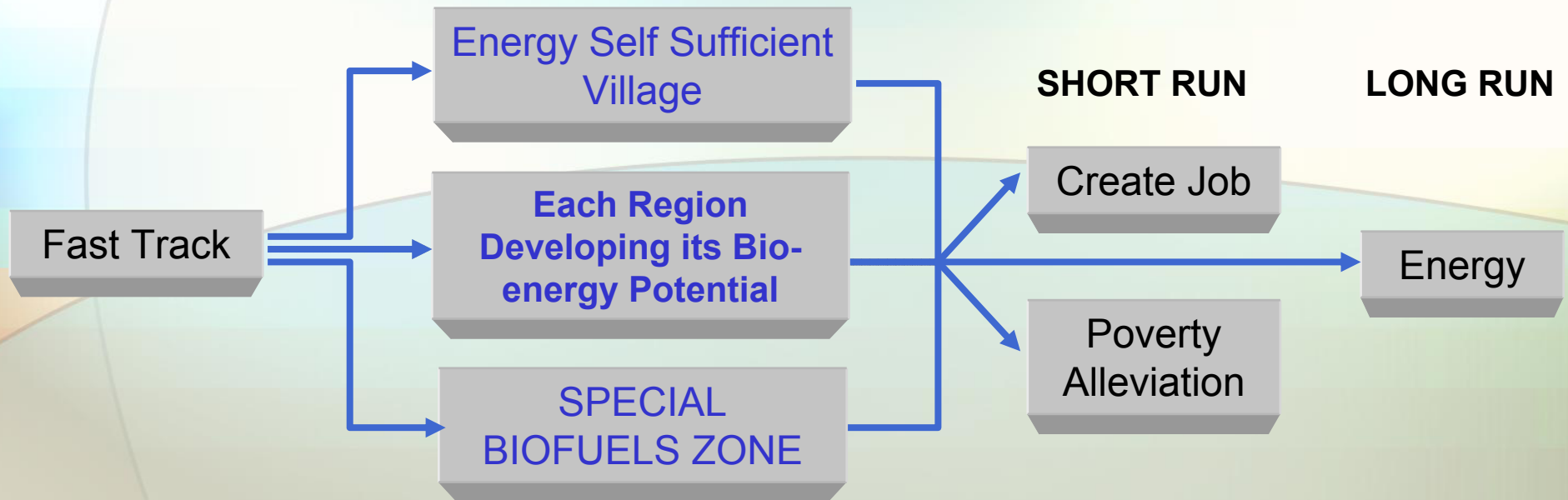
Sago

Corn



BIOETHANOL

FAST TRACK BIOFUELS DEVELOPMENT



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

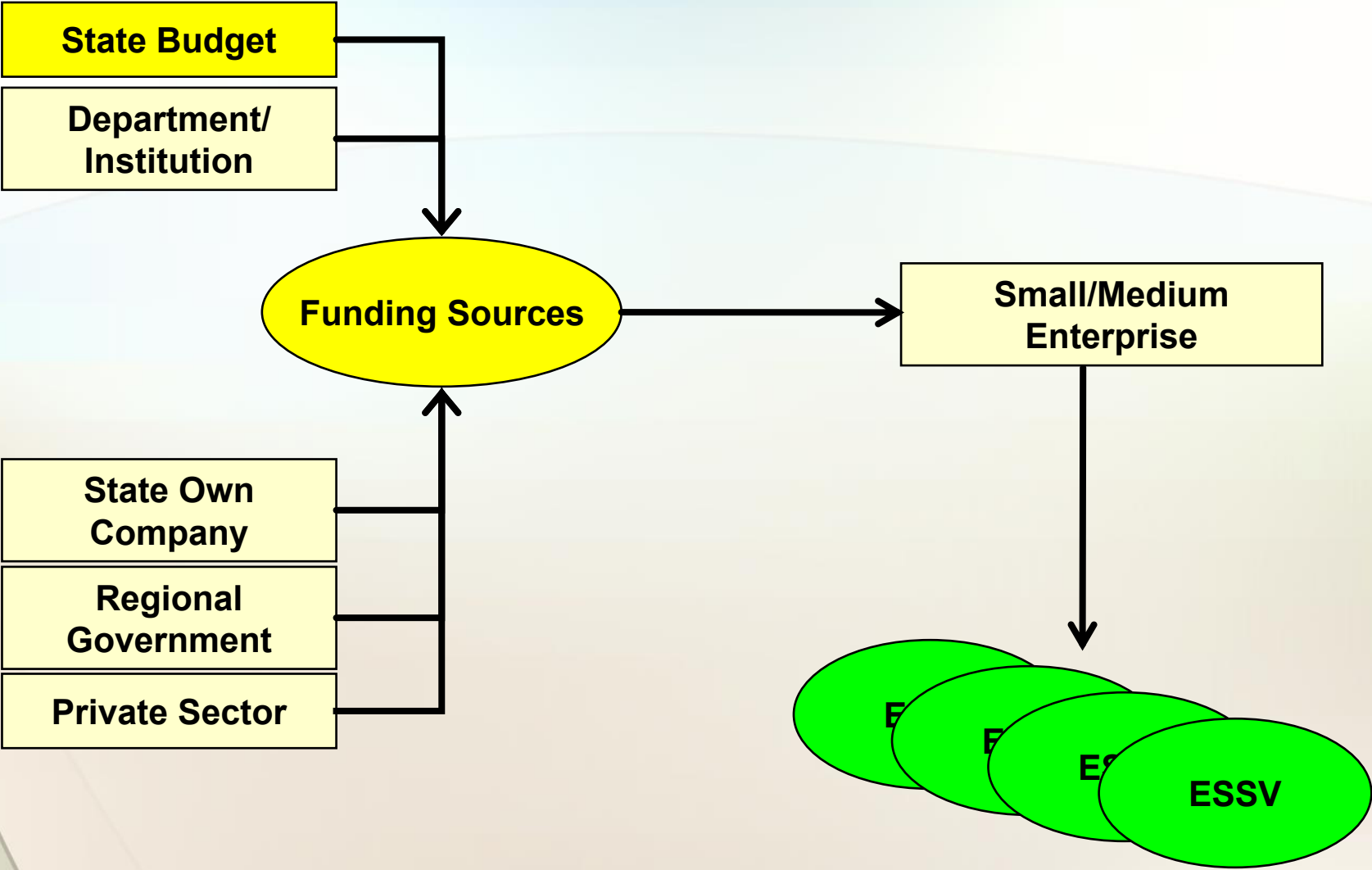
ROADMAP FOR BIOFUELS DEVELOPMENT

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 - Biokerosene	Biokerosene Utilization 1 million kl	Biokerosene Utilization 1.8 million kl	Biokerosene Utilization 4.07 million kl
- Pure Plantation Oil for Power Plant	PPO Utilization 0.4 million kl	PPO Utilization 0.74 million kl	PPO Utilization 1.69 million kl
BIOFUELS	BIOFUELS Utilization 2% of energy mix 5.29 million kl	BIOFUELS Utilization 3% of energy mix 9.84 million kl	BIOFUELS Utilization 5% of energy mix 22.26 million kl

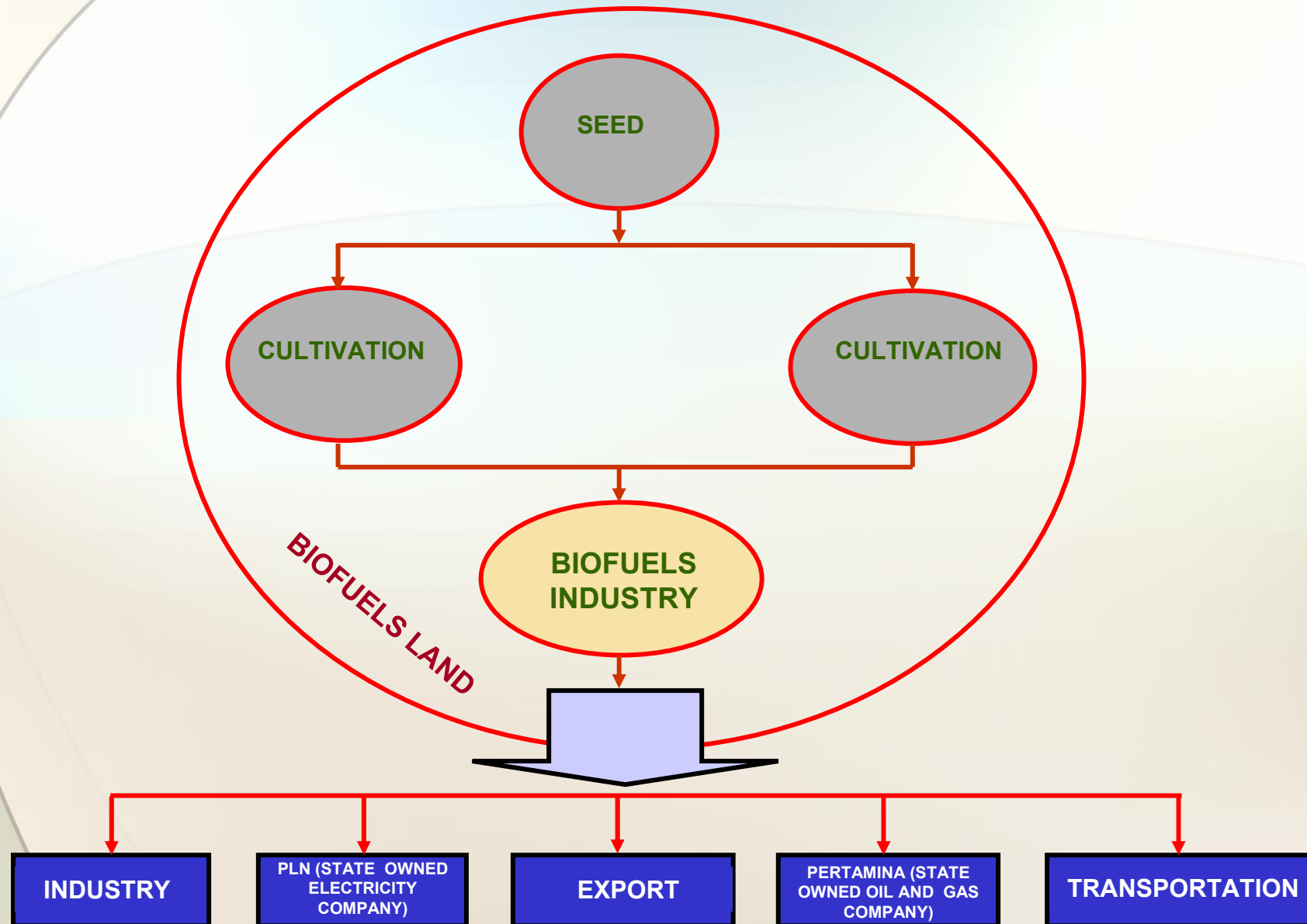
BACKGROUND OF ENERGY SELF SUFFICIENT VILLAGE (ESSV) DEVELOPMENT

1. Indonesia has more than 70,000 villages, 45% of which are under poverty line.
2. Energy Self Sufficient Village is a program to fulfill the village's needs on energy, to create job and to alleviate poverty through optimizing local community capability.
3. The target of this program is to release local community dependency on fossil fuel.
4. Energy Self Sufficient Village is implemented gradually, starting from the villages that have been prioritized by the Government.

ENERGY SELF SUFFICIENT VILLAGE (ESSV) FUNDING



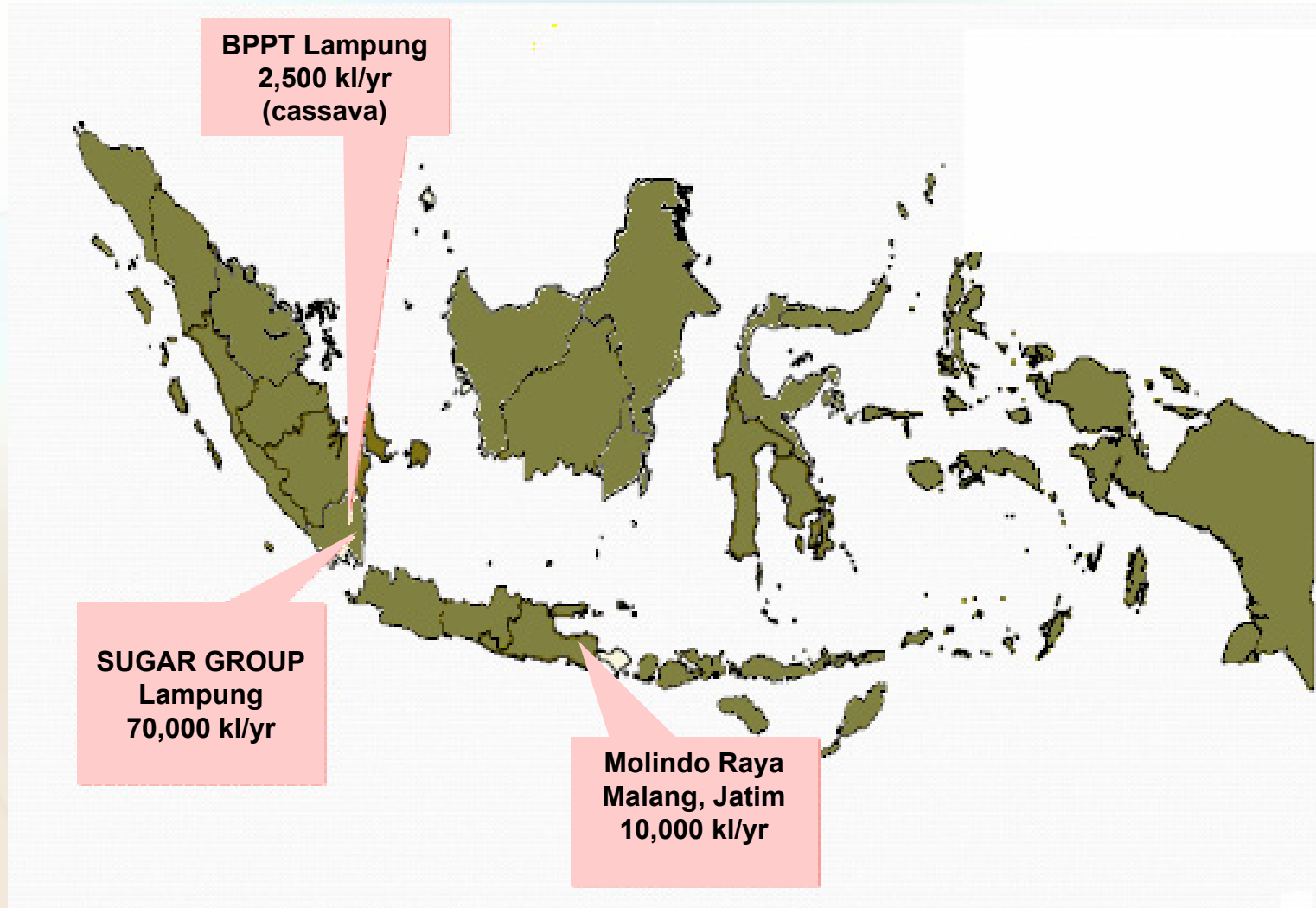
DEVELOPMENT OF SPECIAL BIOFUELS ZONE



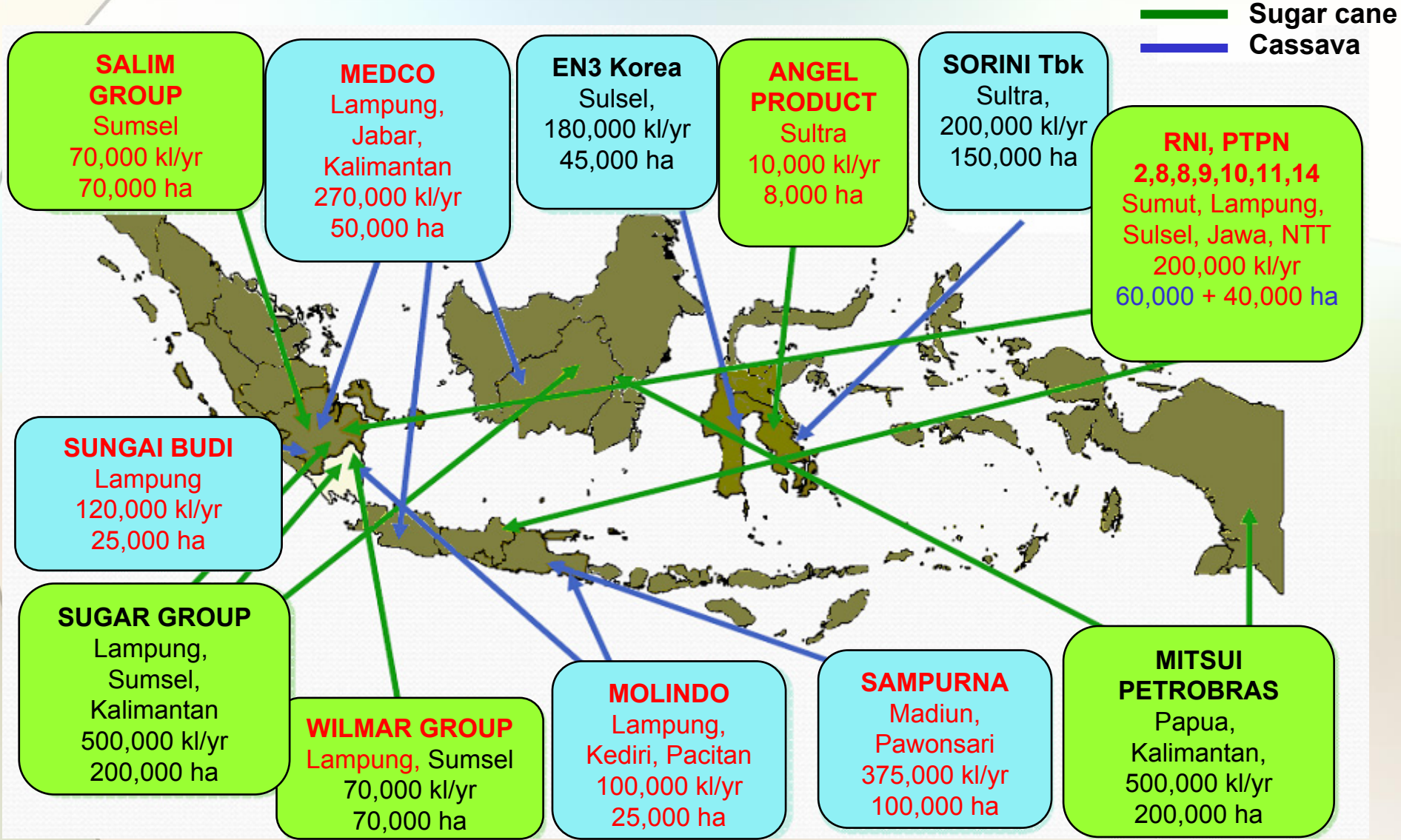
BIOFUELS DEVELOPMENT PROGRESS

- Availability of BIOFUELS Development Blue Print
- Availability of BIOFUELS Development Regulations and Standards
- Biodiesel (B-5), has been sold in 201 gas stations in Jakarta and 15 gas stations in Surabaya
- Bioethanol (E-5), which is known as Bio-Premium has been sold in Malang. Started December 2006 Bio-Pertamax has been sold in 5 gas station in Jakarta
- Started of Energy Self Sufficient Village using BIOFUELS
- Commitments of Investor to develop BIOFUELS
- BIOFUELS Producers, among others :
 - Eterindo, Ltd.
 - Molindo Raya, Ltd.
 - Energi Alternatif Indonesia, Ltd.
 - Sumi Asih, Ltd.
 - Platinum, Ltd.
 - Lampung Destileri, Ltd.

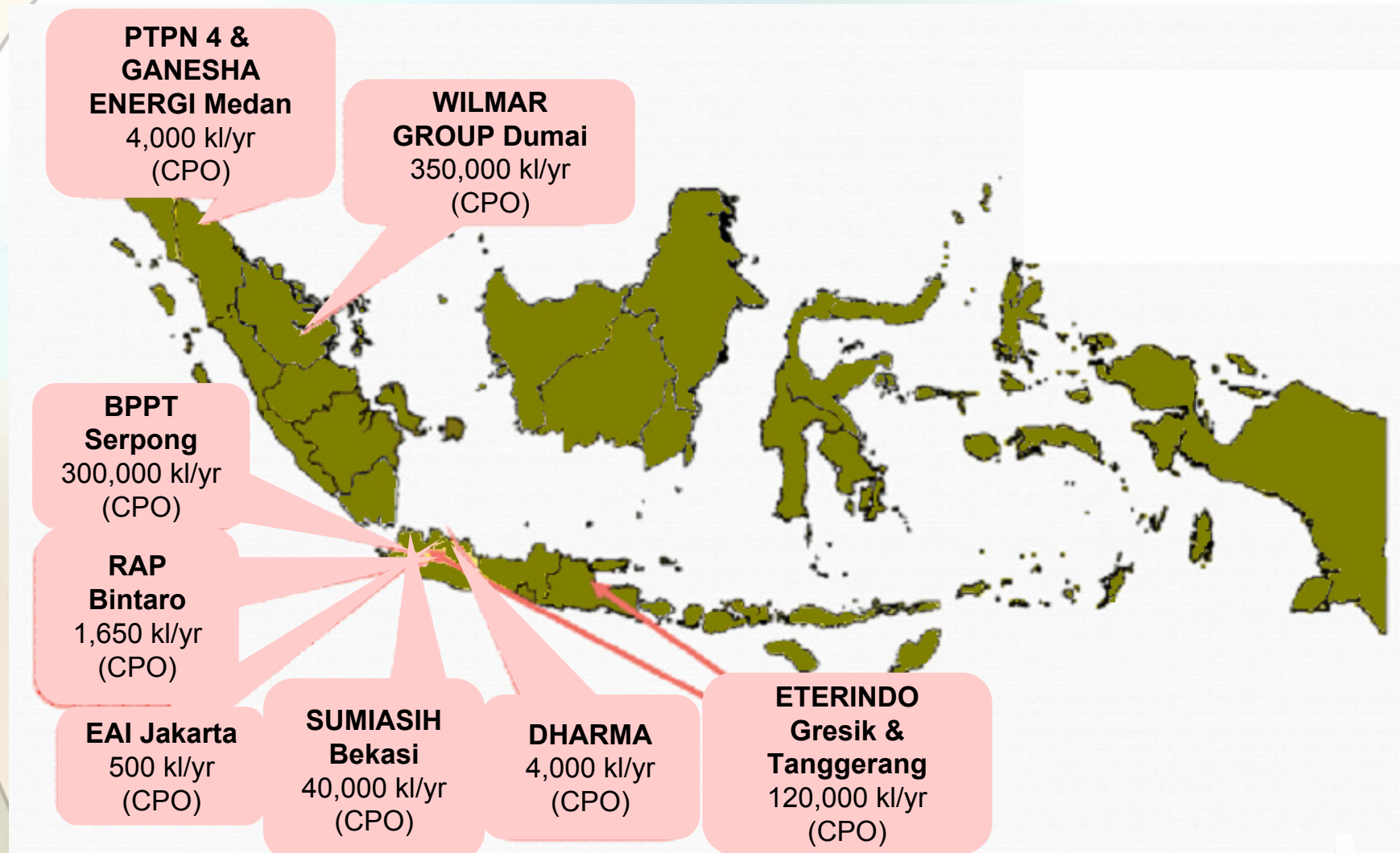
PRODUCTION OF FUEL GRADE BIOETHANOL – April 2007: 82,500 kl



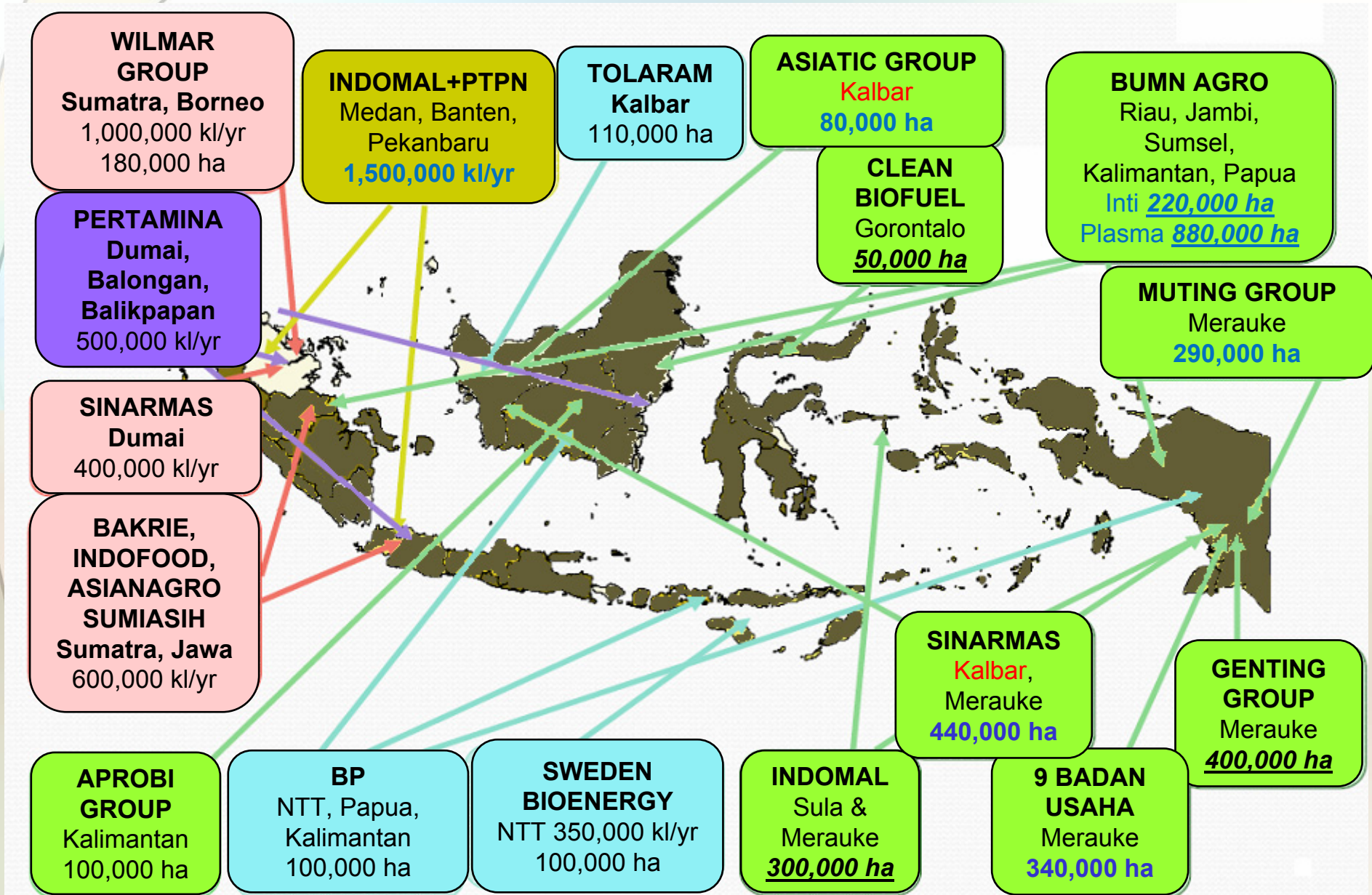
**ADDITIONAL PRODUCTION OF FUEL GRADE BIOETHANOL:
2 million up to 2.7 million kl/year (1.1 million ha): 2007 – 2010**



PRODUCTION OF BIODIESEL – April 2007: 520,000 kl/Year



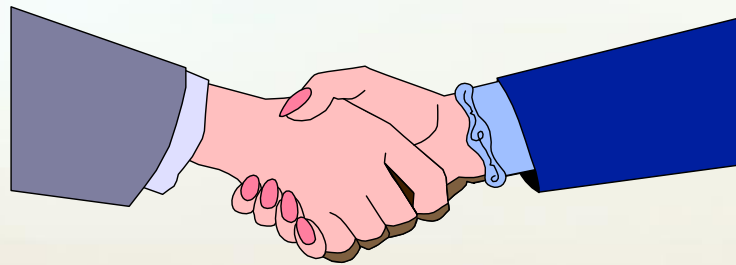
ADDITIONAL PRODUCTION OF BIODIESEL : 2 million kl/year (3.6 million ha): 2007 – 2011



POWER PLANTS USING BIOFUELS

No.	Location	Numbers of Power Plant	Total Capacity (MW)
1	North Sumatera	1	4.5
2	Maluku	7	4.0
3	Riau and The Islands of Riau	2	14.1
4	Lampung	1	11.0
5	Bali	1	1.5
6	South Kalimantan	5	19.8
7	East Kalimantan	7	16.0

THANK YOU



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