

BIOMASS - ASIA WORKSHOP

Policy and strategy for Biomass development and utilization in VietNam

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INTRODUCTION

Economic growth of Vietnam is about 7-8%/year, so the energy demand is greatly increased.

The energy demand is expected to be 61 mil. TOE (tons oil equivalence) by the year 2020, which includes:

- Electricity: 170 bill. kWh**
- Diesel: 11.5 mil. TOE**
- Gasoline: 7.67 mil. TOE**
- Coal (exclusive coal for boilers): 18.5 mil. TOE**

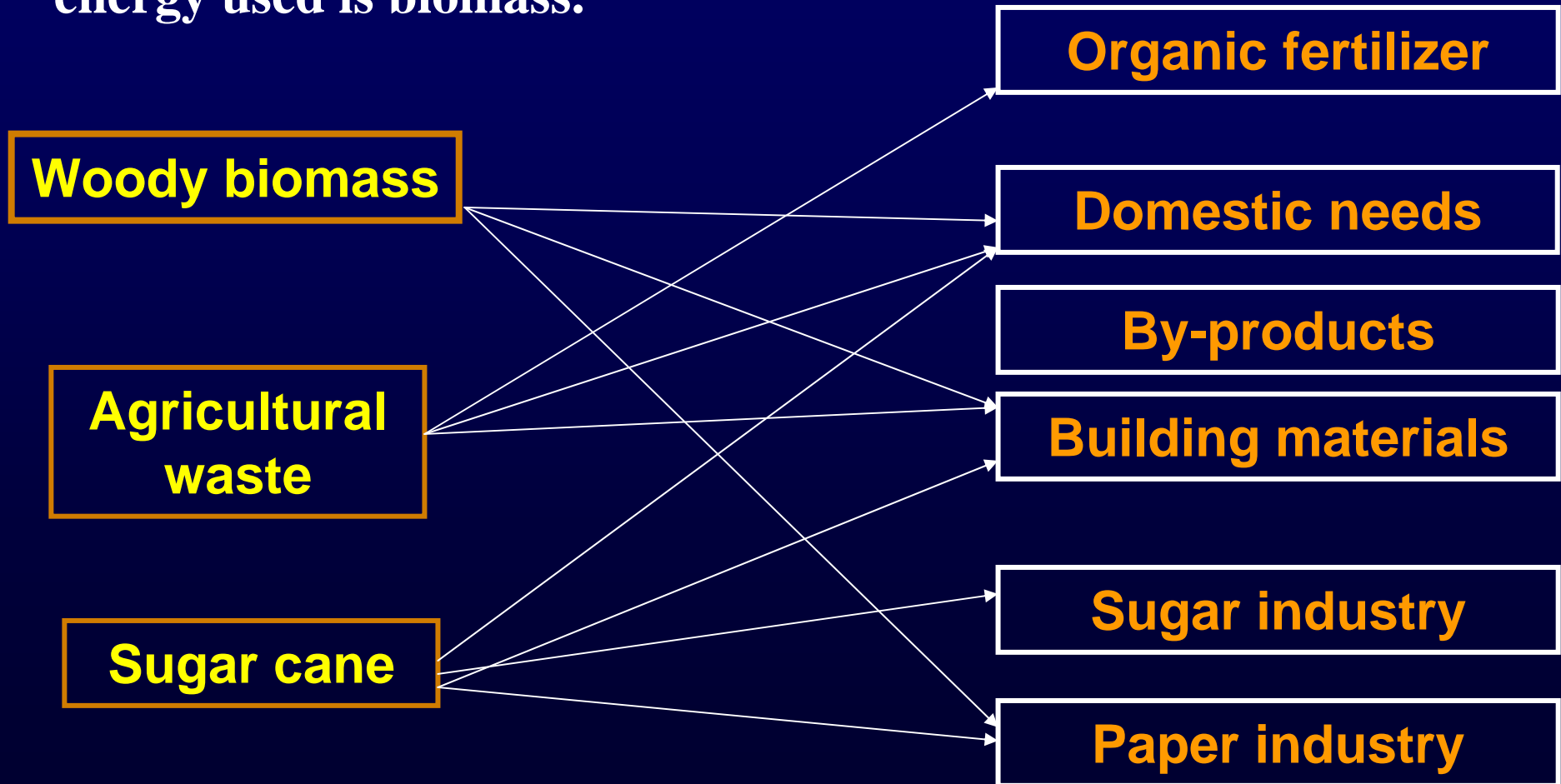
The lack of energy supply based on fossil fuel and hydraulic power is significant (National Energy Strategy by 2010 and 2020 and Ministerial Project KH-CN-09).

Seeking alternative sources to fossil fuel is an interest topic for Vietnamese Government towards sustainable development.

National Energy Development Program puts emphasis on: "Strengthen R & D for new types of energy, in which attention was paid on sunlight, wind energy and especially the renewable energy (biomass)".

utilization OF biomass in vietnam

Around two third (2/3) of Vietnamese population is living in rural, remote mountain and island areas. The only source of energy used is biomass.



At present:

- **Annual energy consumption of Vietnam increases ca. 7.69%;**
- **While annual energy consumption from biomass grows with the mean value of 1.47%;**
- **Energy from biomass accounts for around 50% total energy consumption for the whole country.**

VIETNAMESE STRATEGY TOWARDS SUSTAINABLE DEVELOPMENT

Vietnam is one of 113 countries that contribute and implement Agenda 21 for national sustainable development after Global Summit on Environment and Development at Rio de Janeiro in 1992 and World Summit on Sustainable Development organized in 2002 at Johannesburg.

The sustainable development strategy in Vietnam was directed at the Resolution No. 153/2004/Q § -TTg issued in August 17th, 2004 by Prime Minister. This is the program of Vietnam to detail the action plan of Agenda 21.

THE AIM OF THE PROGRAM

- "Rationally exploit, economically and effectively use natural resources; Prevent, deal with and effective control environmental pollutions, well protect live environment; Reserve national parks, natural recourses, biosphere reserve areas and biodiversity reservation, overcome recession and improve environment".
- "Develop socioeconomics cemented with protection and improvement of environment; ensure harmonious development between artificial and natural environment; conserve biodiversity".

PRIORITY FIELDS OF SUSTAINABLE DEVELOPMENT PROGRAM IN VIETNAM

- **Change technology directed toward cleaner production and environmental friendly based on economizing unrenewable resources, minimize persistent hazardous.**
- **To reserve national security of energy Vietnamese Government issued priority development policy, which attached special importance to: "Support R & D, technical transfer projects on new environmental friendly energy systems, especially renewable energy sources (by financial encouragement and policy structure).**
- **Agriculture, forest and fish-breeding account for one fourth (1/4) GDP, so it is necessary to give priority to sustainable development strategy based on principle: industrial development should guarantee the development of soil, water, air, forest resources and biodiversity.**

• In priority science and technology fields in Vietnam, Biotechnology is specially paid attention. The development program for biotechnology was approved by Vietnamese Government issued in Decree 18/CP, which content concerned with sustainable development and use of biomass:

- Study and apply biotechnology to grow crop plants, domestic animals with high productivity, quality and confront.

- Expand organic and biological fertilizers, apply organic agriculture towards making widespread of sustainable ecological agriculture.

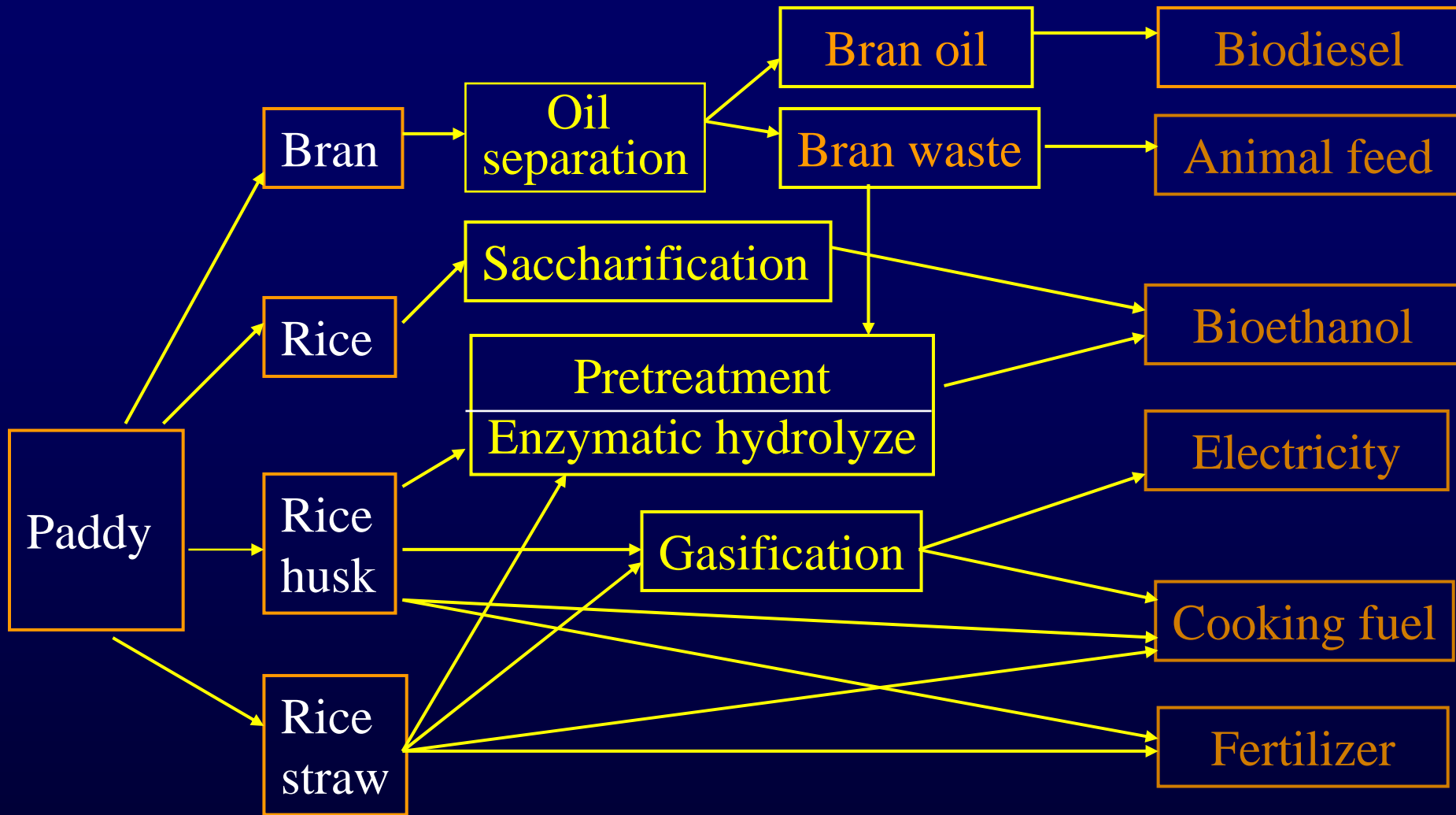
- Study conservation and effective exploitation of valuable genes and biodiversity.

- Strengthen study and application of advanced technology for processing agricultural, forestry and aqua cultural products.

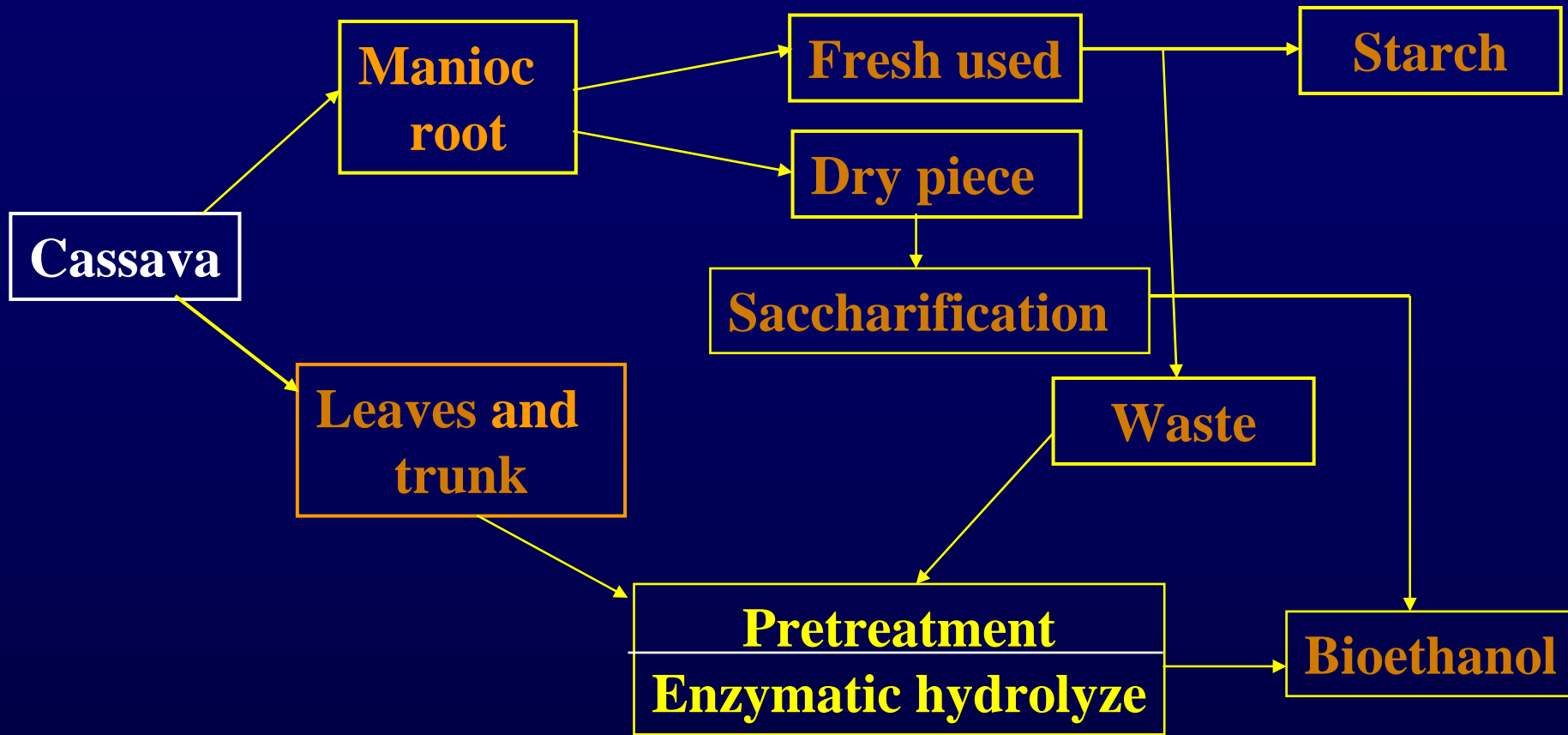
The Resolution No.188/2005/Q § -TTg was recently issued by Vietnamese Government for speeding up biotechnology development, that showed in nine projects, including five projects concerned with biomass development, usage and international cooperation.

- Key program for development and application of biotechnology in agricultural and rural by 2020.**
- Project for development and application of biotechnology in aquaculture by 2020.**
- Project for development and application of biotechnology in food and biomaterials processing industry by 2020.**
- Project for development and application of biotechnology in environmental protection.**
- Project for promoting international collaboration and integration in applied and development of biotechnology.**

r & D directions on biomass utilization in Vietnam



Paddy utilization in Vietnam: current and future



Cassava utilization in Vietnam: current and future

**Thank You for
Attention**

