

Biomass town concept in East-Asian



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6th Biomass Asia Workshop

What is Biomass Town?

Biomass Town is....

a community which utilizes biomass with strong ties among a community and local stakeholders. Government promotes Biomass Town for the achievement of one of the **Biomass Nippon Strategy's** goals: 300 biomass towns by 2010.

Current Situation of each region

What kind of biomass to use depends on regions.
for example, domestic animal wastes, leftover food, sewage sludge, thinned wood, seafood processing residues

How to use biomass also depends on regions.

product: composts, plastic

energy: gas, electricity

Tailor-made

goals of policy in each region vary.

for example, prevention of global warming, local production of energy for its local consumption, revitalization of local businesses and etc.

Issues to consider

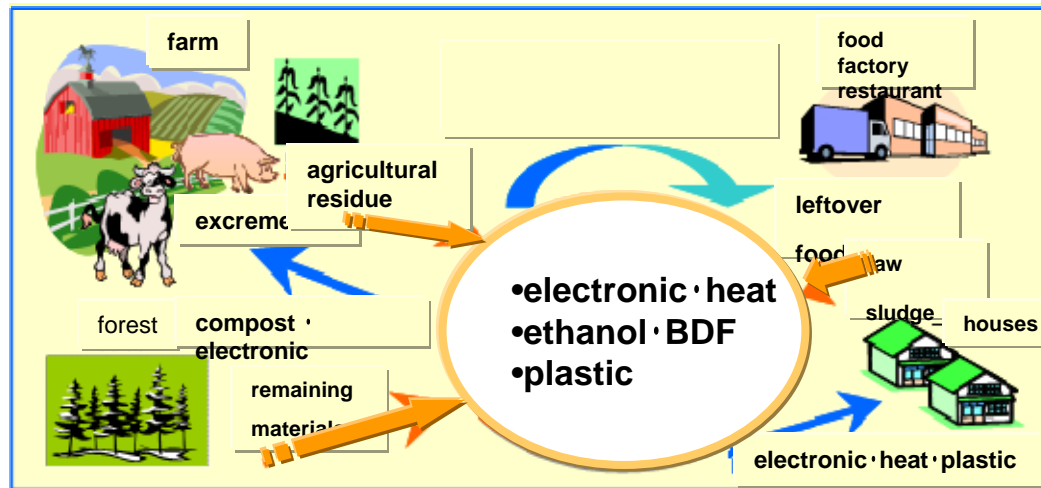
- framework for corporation among concerned parties
- a variety of ways to use biomass corresponding to local needs.
- efficient ways to collect, transport, convert biomass resources and use biomass energy etc.

Increase numbers of Biomass Town

Past Achievement

- 2004: 13 towns
- 2005: 44 towns
- 2006: 90 towns
- 2007: 136 towns
- 2008: 197 towns
- ~ 2009: 219 towns

GOAL:
300 biomass towns
by 2010



Based on MAFF Document

Biomass town project is a plan for local government bodies to promote biomass use in their regions.

Government asked local bodies to submit proposals on effective biomass use at the region.

Once it has approved by the governments, the local bodies are easier to obtain the funds from MAFF based on the proposals.

219 Biomass Towns (as of September 2009)

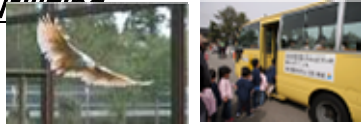
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Major Biomass Towns (MAFF Document)

Sado City, Niigata Pref.

For creating an environment which Sado Islanders and Japanese crested ibis live together by utilizing local resources



Source: Sado Toki Protection Center

Shimokawa Town, Hokkaido

For a leading low carbon society where local community and forests coexist



Kasai City, Hyogo Pref.

For having local trains run by BDF from rapeseed, which is symbol of local environmental circulation



Kosaka Town, Akita Pref.

For utilizing biomass in Kosaka Town, a hub of 3 R (reduce, reuse and recycle) campaign



Maniwa City, Okayama Pref.

For promoting biomass-related industries by study tours to facilities of making woody biomass



Motegi Town, Tochigi Pref.

For producing "Midori" compost, made from local biomass resources and local production for local consumption



Ie Village, Okinawa Pref.

For revitalizing Ie Village as a bioethanol island by focusing on agriculture



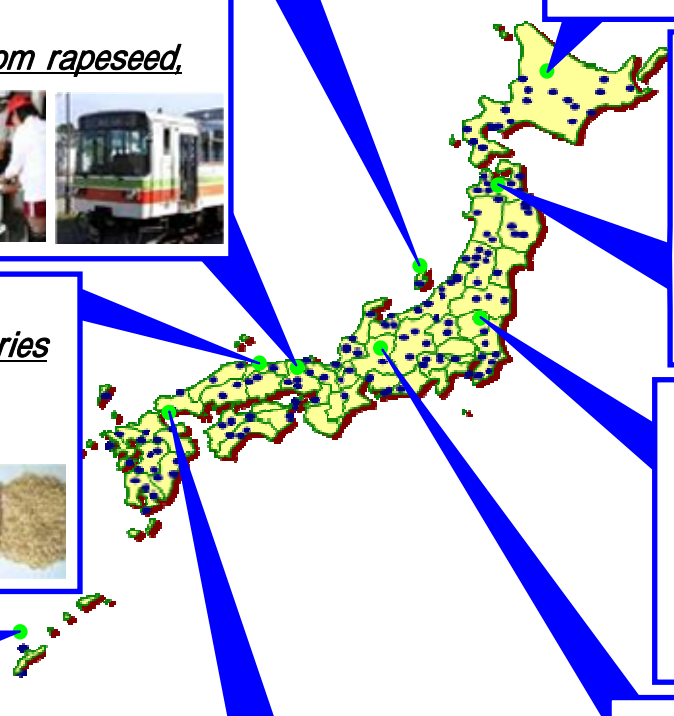
Hita City, Oita Pref.

For becoming a nationally preeminent "department store" of biomass resources



Shirakawa Town, Gifu Pref.

For local environmental circulation of forests and energy



East Asia Biomass Town Concept Promotion Project

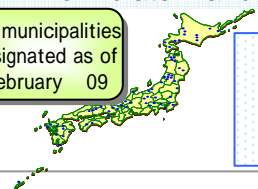


Background / Aim

Japan's Biomass Town Initiative

Based on the "Biomass Nippon Strategy":
 Promote building of Biomass Towns to comprehensively utilize regional biomass
 Survey biomass usage in Asia, share information and formulate manual

163 municipalities
 Designated as of
 February 09



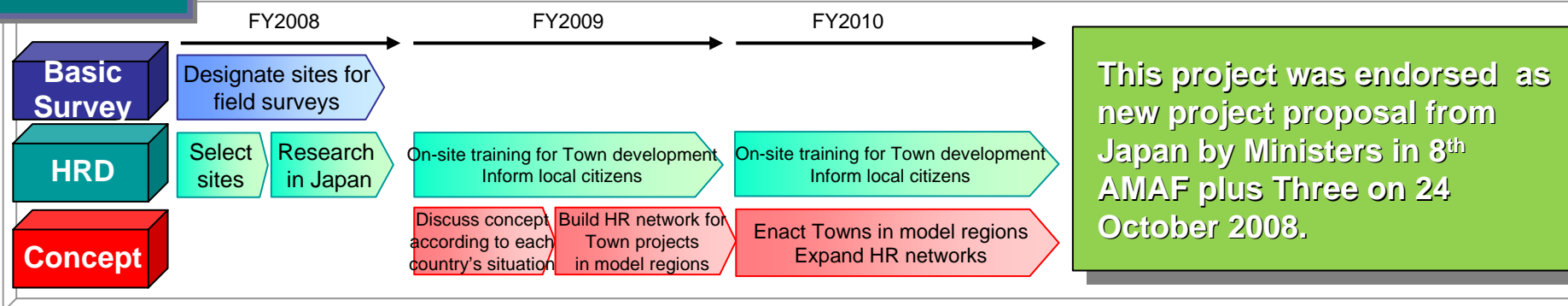
Global Needs for Sustainable Biomass Usage

Attention turns to biomass due to global warming and rising crude oil prices
 East Asia is endowed with massive biomass reserves that are not effectively utilized.
 Wide-ranging support for its effective use is needed.
 In light of high-level FAO meetings and the Toyako Summit, developing countries need aid to handle rising food prices as well as environmental and climate problems

By disseminating Japan's "Biomass Town" project,
we can develop sustainable biomass systems compatible with food production
throughout East Asia



Details



Effect

- Build overseas Biomass Town models
- Industry-gvt.-academia collaboration on Biomass Town projects
- Mutual cooperation among Japanese and foreign Biomass Towns



With Japanese Biomass Town know-how, we can contribute to rural redevelopment in East Asia and help counter global warming.

Objectives

World / Asia

Japan

• Project Background

Background/ Issues

Global Warming/Climate Change
Global food shortage/food safety
Volatile crude oil/food prices
Poverty reduction in rural/agricultural villages



Challenges to meet greenhouse gas reduction targets
Challenges for sustainable energy & food supply
Increasing gap (i.e. income, etc) between rural and urban regions



Opportunities

Partnership in East Asia

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Japan's Biomass Town Initiative

Based on the "Biomass Nippon Strategy":

- Promote building of Biomass Towns to comprehensively utilize regional biomass
- Survey biomass usage in Asia, share information and formulate manual

159 municipalities Designated as of November 2008



Approach

East Asia Biomass Town Concept Promotion Project

The project aims to:

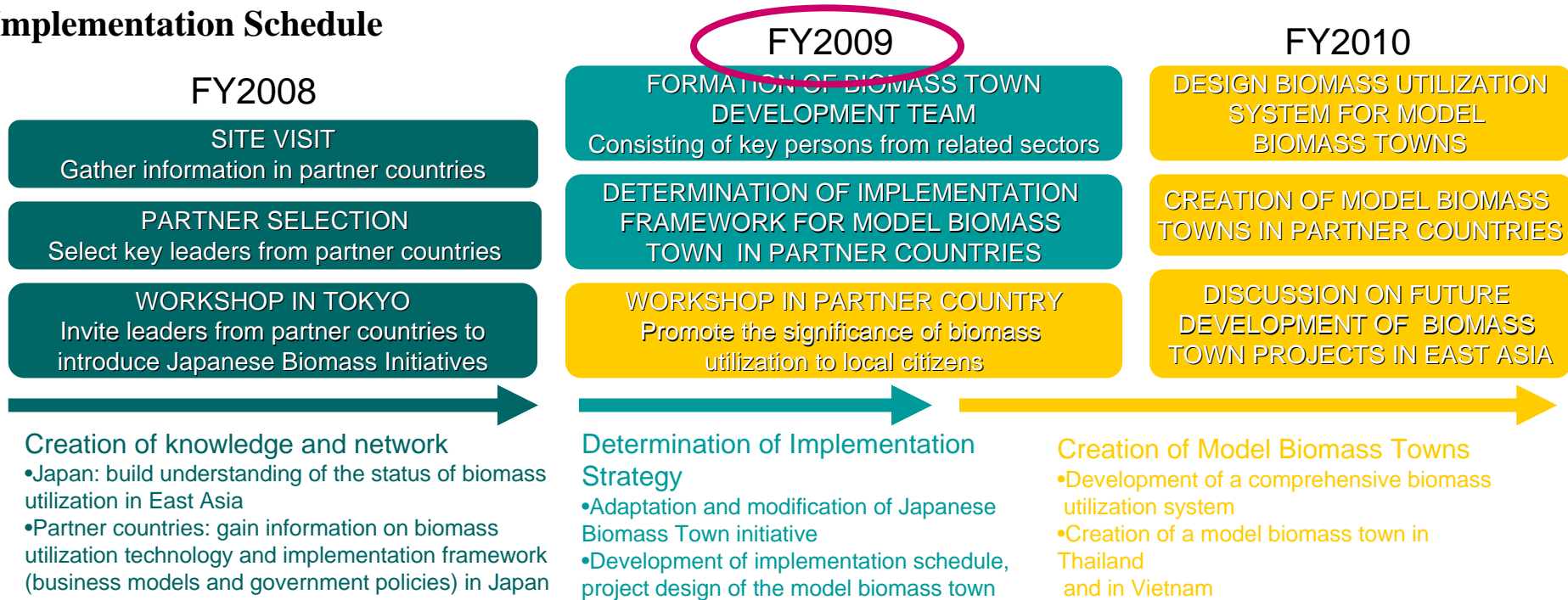
- Create partnerships between countries in East Asia to promote the effective utilization of biomass resources
- Development of a sustainable biomass system compatible with food production
- Share the Japanese "Biomass Town" experiences (technologies, business model, framework, etc.)

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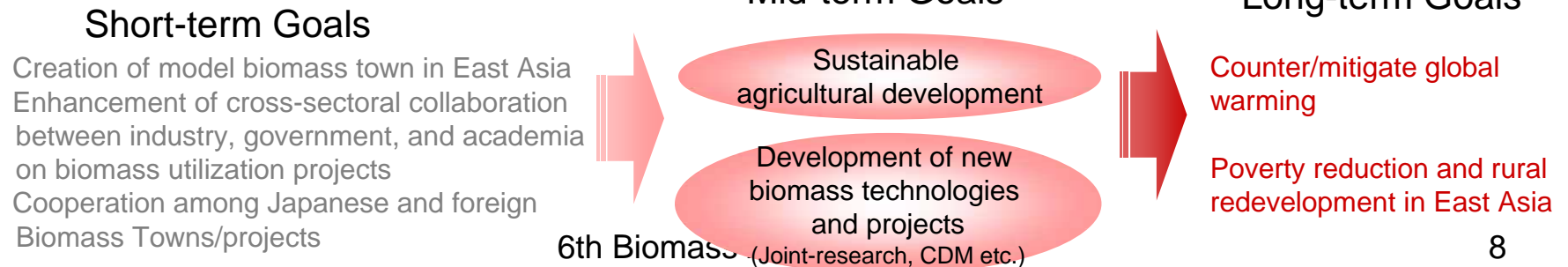
Objectives

• Project Implementation Schedule & Expected Outcome

Implementation Schedule



Expected Outcome



Perspectives (Input by MAFF)

- Expected numbers of Biomass-Town is 300 (Final goals) by the end of FY 2010. (Now around 220, by the end of Sep.,2009)
- There will be a workshop for ordinary citizens and government officers etc. in Thailand and Viet Nam in this fiscal year.
- Next fiscal year, there will be planed “Eastern-Asia Biomass Summit” as main outcomes.

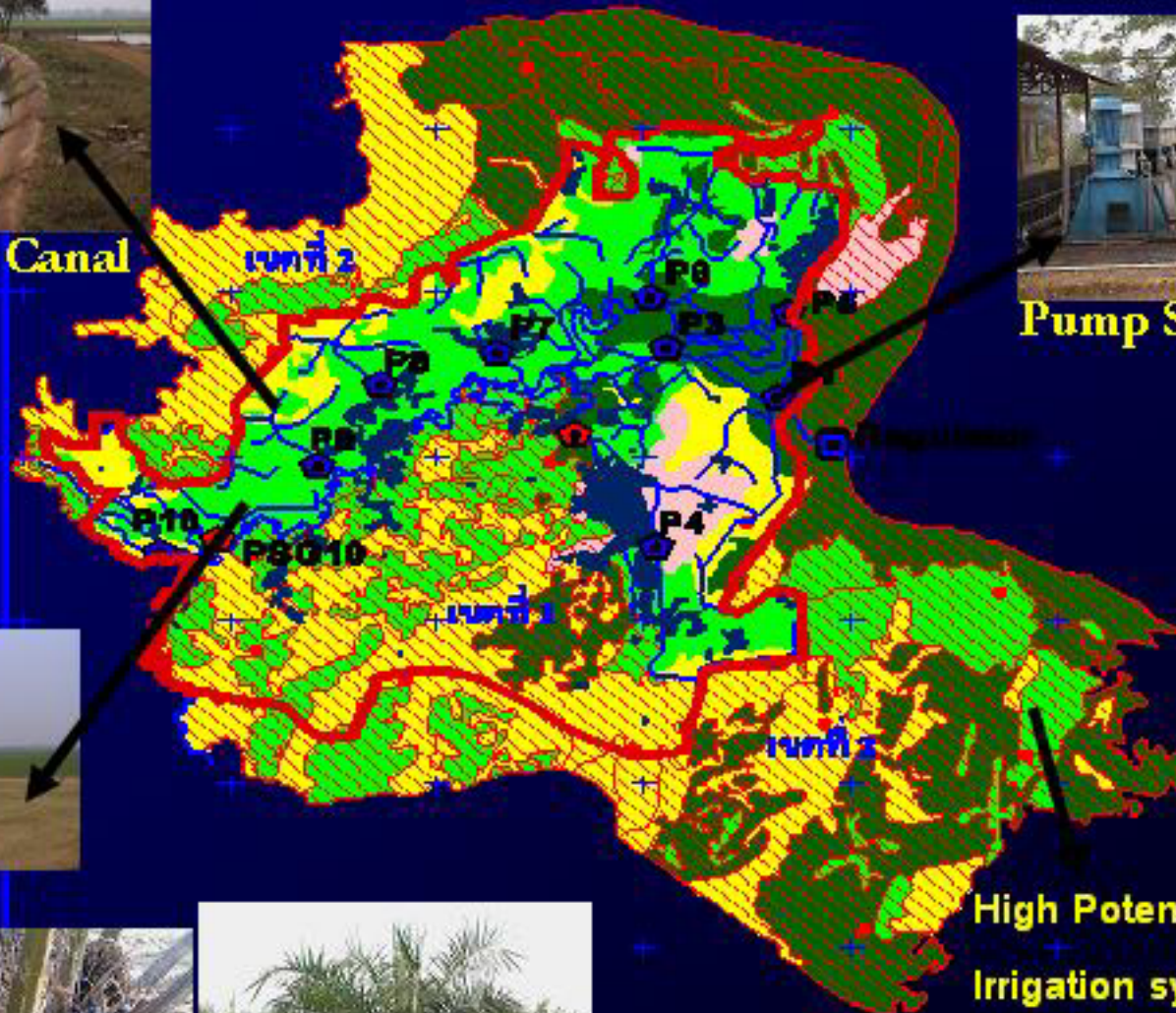
Unit 60,000 Rais



Irrigation Canal



Pump Station



Oil palm 3 years old

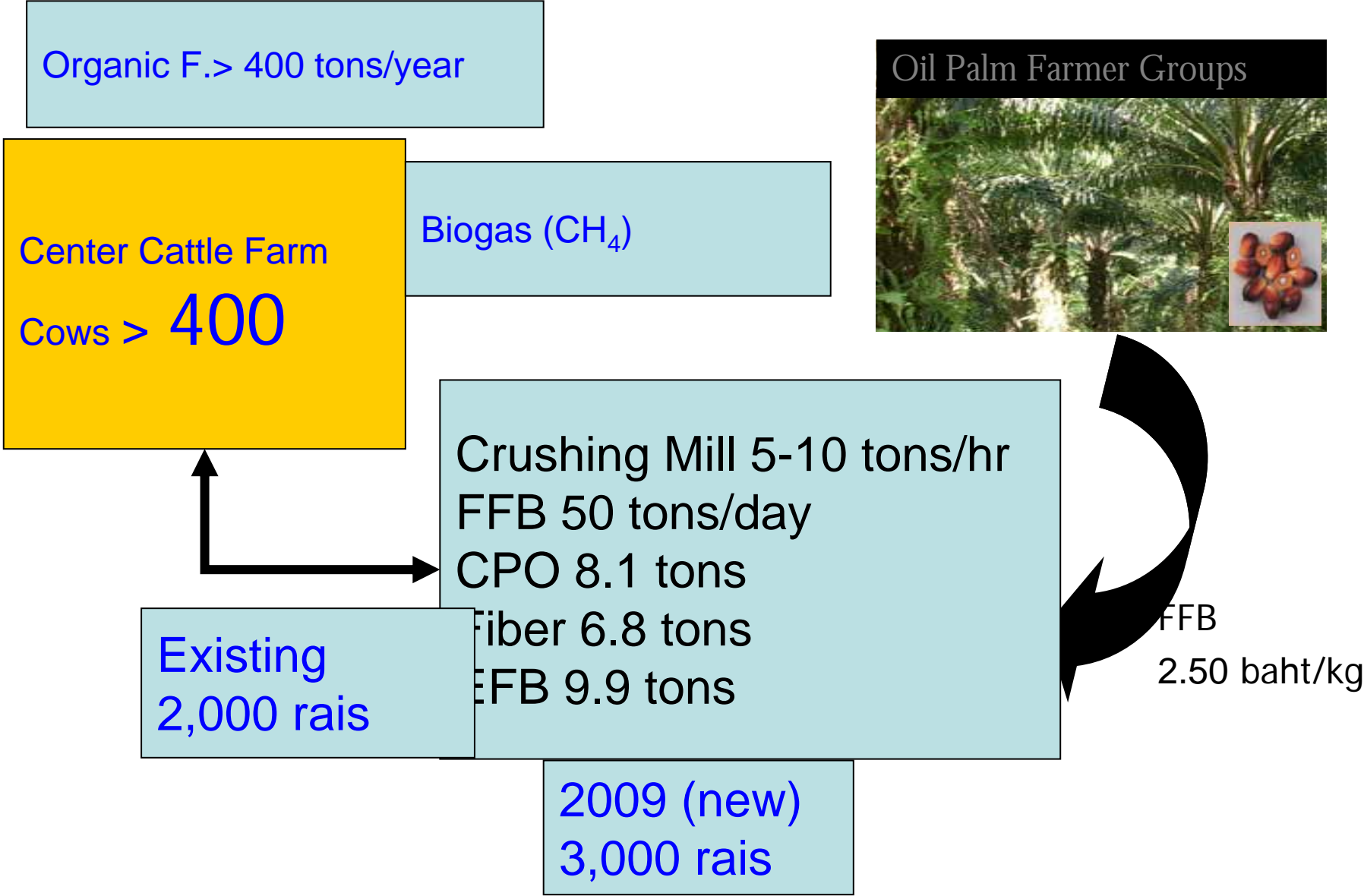
High Potential out
Irrigation system

Project Targets

- **Oil palm new plantation will establish > 5,000 rais (within 40 km) to substitute some low productive area (paddy or field crop)**
- **Central cattle farm for biogas producing system**
- **DOA supported knowledge and seedling**

- **DOA designed the Crushing Mill Model for 5 t/hr, by product from the processing unit are;**
 - **Fiber (after oil extracting)**
 - **Organic Fertilizer Producing unit (cow dung & EFB)**
 - **Liquid fertilizer (from biogas unit)**

Pilot Model



Our Biomass Refinery Systems Installed at Miyako-Island, Japan

Biomass Refinery Systems at Miyako-Island

Pyrolysis (Bagasse)



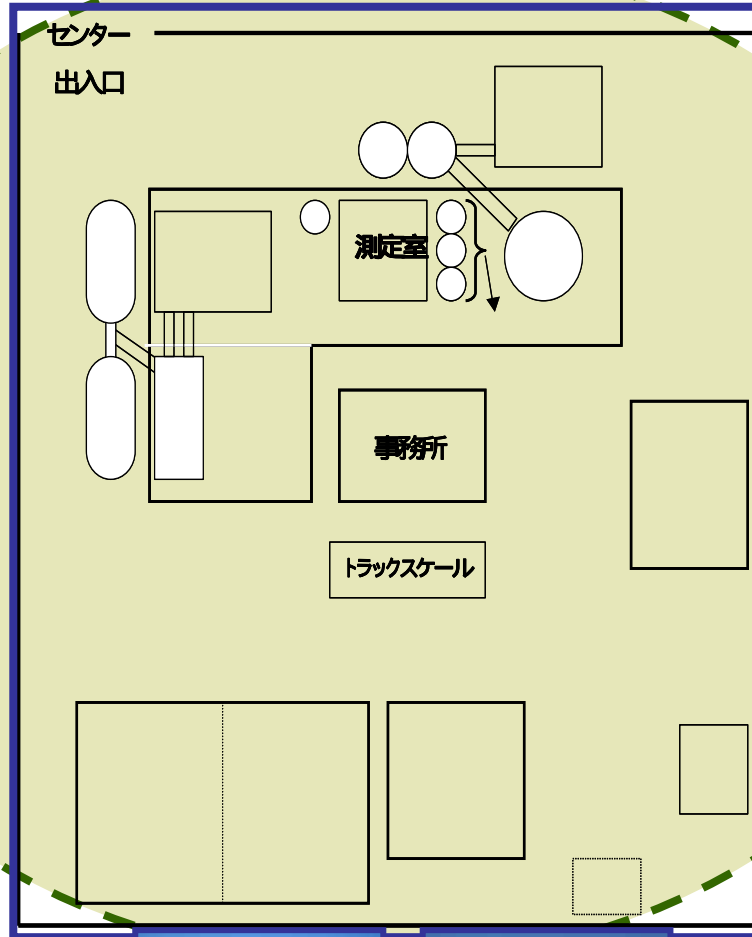
Gasification



Stock yard



Waste Honey stock



Bio-gas



Pyrolysis (Sludge)

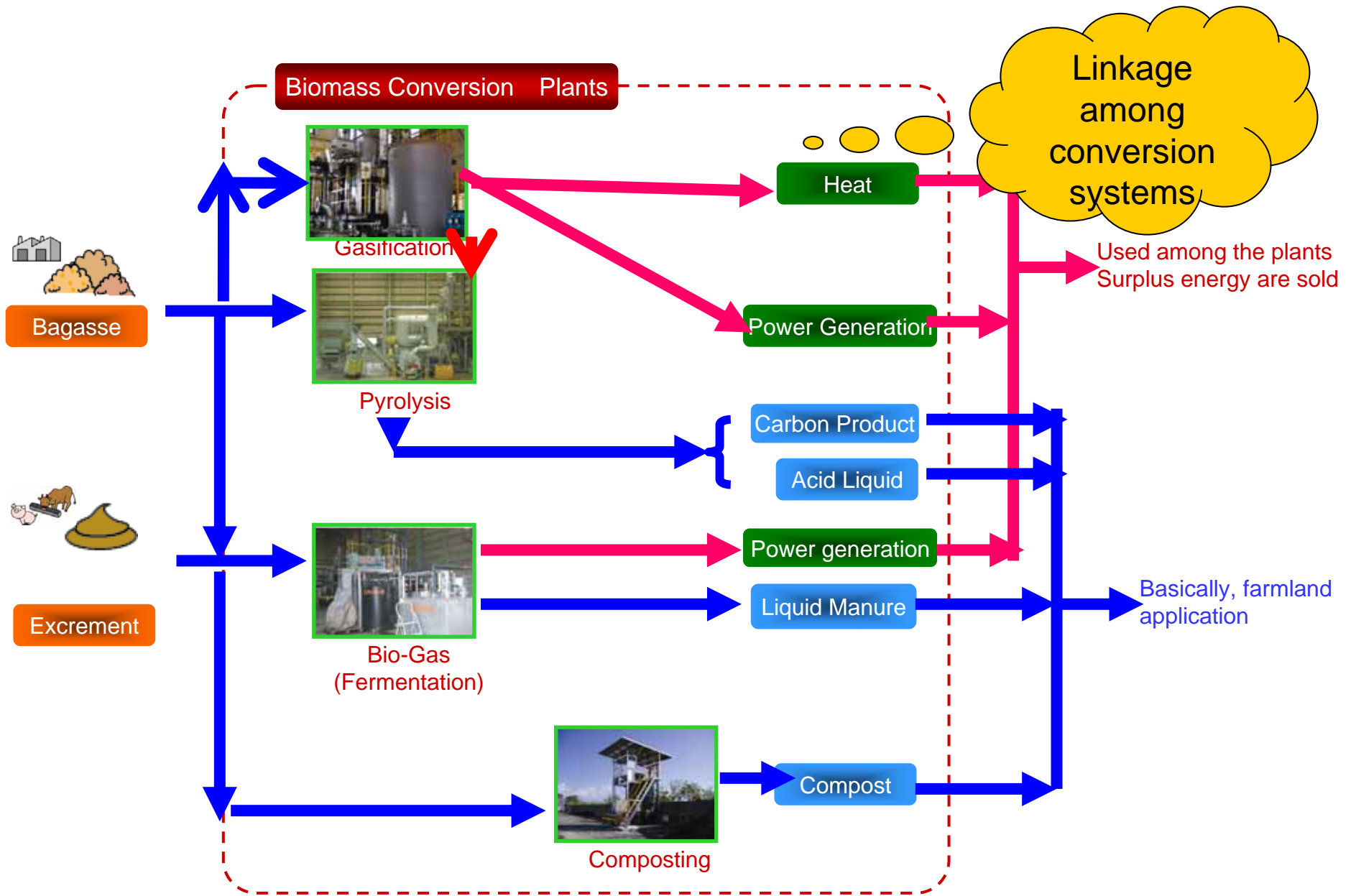


Speedy compost



Wind & solar power generators





Thank you for your
attention!!
Your comments are
greatly welcomed!!