



Energy Efficiency in Thailand's Agro-Industries

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Projects/Programmes based in Thailand

Climate, Environment and Energy	<ul style="list-style-type: none"> <input type="checkbox"/> Climate Policy Project (BMU) <input type="checkbox"/> Energy Efficiency Development Plan (BMU) <input type="checkbox"/> Project Development Programme: Renewable Energy in SEA (BMW) <input type="checkbox"/> Flood and Drought Prevention (BMU) <input type="checkbox"/> The Economics of Ecosystem Services and Biodiversity (EU, BMZ, TH) <input type="checkbox"/> Water and Waste Water Companies for Climate Mitigation (BMU)
Sustainable Consumption and Production	<ul style="list-style-type: none"> <input type="checkbox"/> Sustainable Consumption and Production, SCP Policy (EU Service Contract) <input type="checkbox"/> Green Public Procurement and Eco-Labeling (BMU) <input type="checkbox"/> Greening Automotive Supply Chains (EU, BMU, TH)
Regional Cooperation, ASEAN Integration	<ul style="list-style-type: none"> <input type="checkbox"/> NEXUS Integrated Resource Management in Asian Cities (BMZ) <input type="checkbox"/> ASEAN Biocontrol for Sustainable Agrifood Systems (BMZ) <input type="checkbox"/> Better Rice Initiative (PPP) <input type="checkbox"/> Clean Air for Smaller Cities in ASEAN (BMZ) <input type="checkbox"/> Sustainable Port Development in ASEAN (BMZ) <input type="checkbox"/> Energy-Efficiency in Transport in ASEAN (BMZ)
South-South and Trilateral Cooperation	<ul style="list-style-type: none"> <input type="checkbox"/> Trilateral Cooperation Programme with Thailand (BMZ, TH) <input type="checkbox"/> Trilateral Cooperation Programme with Malaysia (BMZ, MY) <input type="checkbox"/> Global Initiative Disaster Risk Management (BMZ) <input type="checkbox"/> In-Company Training in the Mekong Region (BMZ and other German ministries) <input type="checkbox"/> Alliance for Financial Inclusion (Bill and Melinda Gates Foundation)



Thai-German Programme on Enhancing Competitiveness of SMEs in the Agro-Industry in Thailand

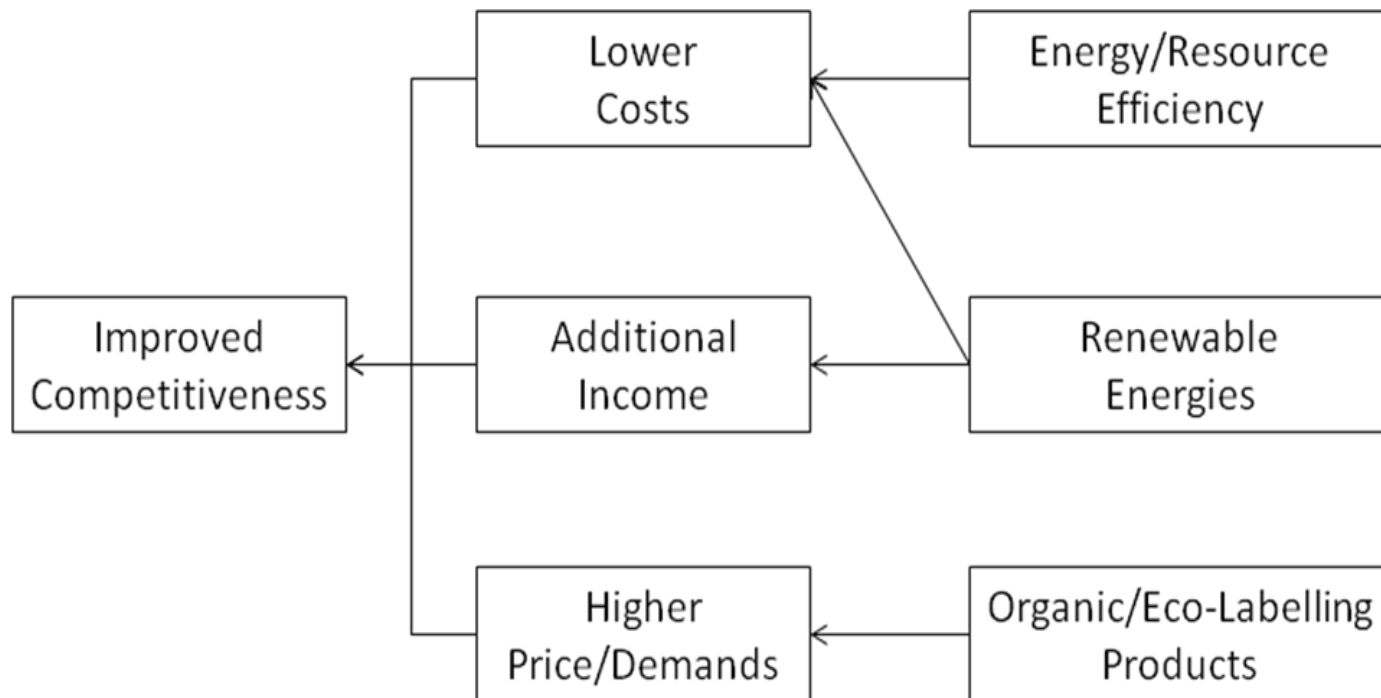
- BMZ-funded
- Duration: 05/2004 to 12/2011
- Two main components
 - Business and Financial Services
 - Eco-Efficiency
- Focus on five agro-industries
 - Palm oil milling
 - Cassava/tapioca processing
 - Shrimp farming
 - Fruit and vegetable processing
 - Saa paper production





TG-PEC

Approach for Competitiveness





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Energy Related Measures

- Palm Oil mills
 - Efficient energy supply by biogas plants
- Tapioca factories
 - Resource efficiency and energy efficiency by Management Information System (MIS)
- Shrimp farms
 - Energy efficiency by optimised aeration technology and improved energy management
- Fruits and vegetables companies
 - Longan drying – energy efficiency by optimised heating ovens
- Saa paper factories
 - Energy efficiency by improved heating systems





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Technical and Organisational Solutions

- Sector specific (slide before)
- Cross-sector
 - Methane-to-power biogas
 - Solar heat in agro industrial process
- Policy and service support:
 - Climate change schemes / establishment of DOE
 - Sustainable consumption and production (SCP)
 - Business membership organisation promotion
 - Matching and mapping innovation
 - Technical and engineering service quality
- In addition: Several PPPs and integrated experts for specific topics in the environment and energy sector



Challenges and Opportunities

- Costs for energy – share of production costs
- From pilot projects to outreach (demonstration project)
- Acceptance and sustainable operation
- Service providers



Lessons Learnt

- Enhanced competitiveness by eco-efficiency
- Business model needs to be identified and to allow short payback period
- Business membership organisations and service providers as multiplier
- Private sector participation (outreach and quality)
- Sector specific measures (competition)
- Approach to all staff-levels to ensure sustainable operation





Presentation for Powering Agriculture



Thank You for Your Attention!

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