



Dear Readers,

The Thai-German Programme for Enterprise Competitiveness is entering into the 2nd phase (2008-2011).

In this last phase of Thai-German technical cooperation financed by the German Federal Ministry for Economic Cooperation and Development (BMZ) and the Thai sides, the programme will focus within its target sectors on extending the outreach of the results of its first phase.

Also, issues such as energy and R&D will receive higher attention in order to enhance Thailand's competitiveness, with a particular focus on small and medium enterprises, as well as environmental and climate change issues. In addition, the management team and structure of the programme will undergo a revision in order to address existing and new challenges.

To get to know more about German companies and GTZ, we recommend you to visit our booth at this year's German Technology Symposium and Exhibition (GTS08) which is being organized by the German-Thai Chamber of Commerce. GTS08 will be held at Central World, Centara Grand and Bangkok Convention Centre from 08 - 11 November 2008.

Sincerely yours

Editorial Team, GTZ Thailand

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## Methodology: The 9 Ms of the Thai-German Programme for Enterprise Competitiveness. How Does It Work?



The overall framework of this bilateral cooperation and its goals has been defined by the Thai and German Governments for an 8-year period (2004-2011). This second phase of the programme (2009-2011) will see a shift to an increased focus on energy issues. GTZ is implementing this Thai-German Partnership Programme on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) in cooperation with Thailand International Development Cooperation Agency (TICA) and various ministries. The programme's target groups are SMEs in the agricultural sub-sectors that are economically significant, that contribute to overall pollution (especially water pollution and CO<sub>2</sub> emissions) and/or are resource- (water and/or energy) intensive, and have sufficient potential for improvement.

### Mission:

The Programme's full title is its mission: "Enhancing the competitiveness of small and medium sized enterprises by improving the access to business and financial services and introducing eco-efficiency in industry" (TG-PEC).

### Management:

The programme is steered by a Programme Management Committee (PMC), which consists of TG-PEC's management team and representatives of several partners (i.e. Ministries and business associations). The Committee meets quarterly in order to monitor, evaluate and decide on new projects and interventions. The full list of implementation partners can be seen at

[www.thai-german-cooperation.info/en/our-partners/index.html](http://www.thai-german-cooperation.info/en/our-partners/index.html)

### Mapping & Matching:

Apart from its main country office (GTZ), the programme has two other offices at the Ministry of Natural Resources and Environment and at the Ministry of Industry. TG-PEC manages projects involving all responsible departments/ministries relevant to the target groups. It also involve key business member organizations and private service providers (including banks for financial services) with the aim of identifying strengths, weaknesses and constraints for each stakeholder grouping (including target groups themselves), in order to design interventions which helps to improve the competitiveness of the targeted sub-sectors/value chains, e.g. in the field of productivity, business and environmental impact performance. The programme also facilitates the matching of research and technology, adaptation and transfer in order to overcome technological constraints within specific sectors and encourage SMEs to use more scientific – based R&D services to help improve e.g. their productivity and/or environmental performance.



### **Multiple-Wins:**

The above structure highlights the integrated nature of this programme, whereby the programme adopts a sustainable development approach rather than follow past “develop first, clean up later” approaches. Economic, environmental and social (triple-win) issues are considered together hand-in-hand with the aim to improve competitiveness, entrepreneurship and organizational development for Thai SMEs in the global market.

### **Matrix-Structure:**



Combined with a value-chain (*sub-sector and intervention-oriented*) approach covering complete pilot sectors, where the programme has identified and addressed constraints at specific points within the value chains for each selected subsector, a horizontal outreach approach (*service- and market-oriented*) is used to stimulate use of appropriate tools and services both within the subsector and in other sectors. The approach allows a more precise and effective targeting of tools & services according to respective strengths and applications. To ensure alignment with the missions and strategic goals of our partners, the above are “summarized” within implementation arrangements (*project- and cooperation-oriented*) between

the Thai-German Programme and its partners (departments and ministries). These arrangements are designed to reflect the common interests of the programme and each of our partners.

### **Manpower & Expertises:**

Via the GTZ’s worldwide network of international development cooperation (over 12,000 staff in over 2,500 projects) and through its partners, the programme has access to a large pool of international experts, international and regional showcases, studies and partner institutions in almost every field, as well as local expertise and networks through its work in Thailand for over 30 years.

### **Multi-Stakeholder Approach:**

In order to ensure long-term viability of new eco-efficiency and business services to be established through the programme, it is crucial to elicit a detailed appreciation of the key technological, business and socio-economic drivers. TG-PEC employs a multi-stakeholder approach with strong and intensive working relationships with SMEs and key stakeholder groupings in order to build up such an understanding of the dynamics of existing structures and networks relating to sustainable production processes and competitiveness, and scale up successful pilot-level results. Multi-stakeholder dialogues add further value to the above approaches by allowing greater access and complementing the broader base of initiatives and activities implemented by other public and private sector stakeholders. Regular exchange platforms are organized (e.g. technical seminars, forums and colloquia) in order to coordinate or cooperate with other national and international initiatives.



### **Market and demand orientation:**

Consultancy services for business development and knowledge providers, whether public or private, must be professionally competent and market-oriented in order to help companies meet the need for improved quality, productivity, resource-management and cleaner production. The support of company networks, eco-industrial parks and information/innovation centres generally prompts entrepreneurs to realign their priorities, thereby stimulating demand for services. Increased efficiency of state regulatory and incentive systems also complement this trend, ultimately relieving pressure on public authorities for pollution control and environmental standards monitoring. The enhancement of a consumer advisory structure and of a policy system of incentives and disincentives will raise consumer awareness and stimulate the market for environmentally compatible production and energy- and resource-efficient products and services.

### **Motivating framework & policy:**



Reducing the costs of energy, water and material consumption, improving its productivity and environmental performance (also addressing climate protection issues), or raising market share (e.g. through quality structure, certifications & labeling) are the first step towards motivating the management of small and medium-sized enterprises to engage in sustainable production and consumption. Policy advice as a guarantor of sustainability and broad-scale impact is a very important factor as well: improving the policy framework conditions to create an "enabling business environment", fostering competition through benchmarking systems, and new incentive and promotional strategies

are core areas for policy advice.

The above summarizes TG-PEC's overall approach. For more details on TG-PEC's themes and approaches see

[www.thai-german-cooperation.info/en/what-we-do/index.html](http://www.thai-german-cooperation.info/en/what-we-do/index.html)

## E3Agro Project Helps Reduce Energy Used in Agro-Industry

The Thai Department of Alternative Energy Development and Efficiency (DEDE) under the Thai Ministry of Energy, together with GTZ have successfully completed the Energy & Eco-Efficiency in Agro-Industry (E3Agro) Project, with 3 main target sectors based on three sectors: palm oil, tapioca starch and shrimps. The project was supported under a grant from the German Federal Ministry for Economic Cooperation and Development (BMZ).

The E3Agro Project was launched in July 2004, with the aim of strengthening the competitiveness of the Thai agro-industry by implementing cost-effective production process technologies and professional management techniques, by promoting efficient energy use, and by improving utilization of biomass for energy. The project has integrated the overall management of quality, environment, energy and information into a combined system of international best-practice manufacturing. From 2004 to 2006, the project selected the palm oil industry as its first pilot sector, later followed by the tapioca starch and shrimp sectors.

18 months after launching the first interventions, analysis of the impact on the palm oil industry revealed major productivity gains, mainly through reduction of oil losses, electricity and steam consumption as well as electricity sales to the national grid from biogas plants treating palm oil mill effluent.

The overall benefit for all 31 mills involved in project activities is estimated to exceed 300 million Baht annually. Most of these net annual gains (nearly 200 million Baht) were achieved through eco-efficiency measures by the 16 mills participating in the benchmarking programme. Specific electricity consumption has been reduced by an average of 9% and specific steam consumption by 11%, resulting in cost savings of 16 and 11 million Baht, respectively. Oil losses have been reduced by 11%, saving 106 million Baht. A further gain of 60 million Baht has been made from sales of electricity from biogas plants to the national grid.

For the tapioca starch industry, the positive experience of the benchmarking program in the palm oil sector has been applied to 7 native starch factories since June 2007. So far, reductions of 13.78% in starch loss in pulp, and 5.25% savings in specific electricity consumption in production process, have been achieved. So far the 6 participating native starch factories have made overall savings of 16.4 million baht over just a 3 month period.



E3Agro started working in the shrimp sub-sector in December 2006, with various interventions designed and implemented by E3Agro in cooperation with the Department of Fisheries (DOF), beginning with a benchmarking program to analyze current energy use in Thai shrimp farms. The results of this programme show savings in farm energy use of up to 30-40%.



Now the project has been completed successfully, we spoke with Khun Somkiat Sutiratana, of DEDE, who was a team leader from the Thai side:

Q :	Could you please describe the core idea of E3Agro and your role in this project?
A :	The E3Agro Project's goal was to strengthen the competitiveness of Thai agro-industry by integrating the overall management of quality, environment and information into a combined system of best-practice manufacturing. The project focused on 3 sub-sectors, (palm oil, tapioca starch and shrimps). DEDE's main roles were to coordinate among the participants of each sector and provide information on the latest technologies, and sources of finance for improving energy efficiency at farm level.
Q :	In your opinion, what were the most important achievements or contributions of E3Agro to the economy or industry sectors?
A :	The project has successfully demonstrated the major improvements in energy efficiency that can be readily achieved at farm level. The E3Agro pilot projects now serve as excellent showcases for entrepreneurs to see and adopt themselves. It is of course crucially important to the Thai economy to minimize spending on energy, as well as to protect our environment.
Q :	If you think of the Millennium Development Goals or the social, economical and environmental dimensions of development, how satisfied are you with the results of the E3Agro and why?
A :	The E3Agro project has been very successful in terms of the social, economical and environmental dimensions of development because the project outcomes have brought about higher employment, increasing income, and lower pollution from returning waste to energy. We only hope these achievements can now be adopted on a broader scale.
Q :	Looking back, what are the things you wanted to achieve, but did not so well, or what could have been done better within the timeframe of this project? And how could this still can be achieved in the future now the project has ended?
A :	DEDE could not in practice provide enough staff to join the project due to workload considerations. Therefore, any new project should pay close attention to alignment with DEDE's responsibilities. Dedicated staff can then be allocated to the project to ensure achievement of the objectives of DEDE and GTZ.
Q :	What are your experiences in working with foreign colleagues/partners? How would you describe your partner organization?
A :	Working with foreign colleagues and partner agencies helps open our minds to new concepts, new technologies and new styles of management that may be applied in the Thai context to achieve significant energy savings. Moreover, our staff at DEDE have learned from GTZ how to deal with and solve problems within defined timeframes. GTZ is renowned for its long and worldwide experience in assisting developing countries in the area of technology management. We at DEDE have been very fortunate indeed to benefit from this experience and support.
Q :	Could you comment on the current debate over biofuels and food security? How should Thailand proceed and what precautions should it take?
A :	Thailand needs to develop alternative energy crops, but has to clearly demarcate areas for energy crop production to avoid conflict with food crops. Using semi-arid areas or unused land to cultivate energy crops and increasing yields to support the biofuel industry can help to mitigate such conflict, earmarking more productive land for food production.
Q :	If there would be an E4Agro project- so to speak- on what should it focus to boost energy utilization and eco-efficiency?
A :	We would greatly like to see such a continuation of this project, as the benefits are so clear for all to see. The next level for a project on energy and eco-efficiency should focus on encouraging public-private and private-private partnerships between Thailand and Germany, with GTZ and DEDE playing the role of facilitators and supporting organizers.

## PNAC- Promoting Agro-Industrial Clusters in Northern Thailand



During Phase I of the TG-PEC, the Promotion of the Northern Agro Industrial Clusters (PNAC), was jointly implemented by the Industrial Promotion Center Region 1 (IPC 1) and GTZ from September 1<sup>st</sup>, 2005 to August 31<sup>st</sup>, 2007.

The project focused on three agro sub-sectors (longan, tangerine, and Saa paper), aiming to promote the competitiveness of SMEs in these sub-sectors by improving the market for business, financial, and eco-efficiency services.

For the longan subsector, the focus was on reducing production costs,

increasing productivity, improving produce processing and quality, and developing innovative value-added products. For the tangerine subsector, product differentiation and production cost reduction were key goals, whilst for saa paper, product differentiation, product/market diversification, and product innovation were identified as the main drivers. Impact assessment has been conducted in the last phase of the project to measure the success of the interventions, addressing productivity, business performance, introduction of internationally recognized innovations and sustainable environmentally friendly production.

By the end of phase I of this project, farm management service providers had been established to offer longan farmers an innovative pruning technique which improves fruit size and quality, particularly during off-season production. The technique also increases yields of premium grades (AA and A) and reduces harvesting costs. Value-added products were also developed from longan. Syrup and sugar, developed under the longan innovation intervention, are now being commercialized by SMEs, and cosmetics from organic longan have been successfully launched in the market under the brand name of Prema Herb, and are today displayed and sold at Chiang Mai Central Airport Department Store. The quality of dried whole longan has been raised by applying a new drying process and a modified drying machine (developed by a German senior expert) to the production process.

In the tangerine sector, soil testing services, training in soil nutrition, diagnostic testing, and use of bio-inputs by experts from the Faculty of Agriculture and Chiang Mai University, succeeded in reducing total production costs, use of agrochemicals and synthetic fertilizers for 32 participating tangerine farmers in Chiang Mai's Fang district by 5.1%, 7.4%, and 17.7%, respectively. The services encouraged tangerine farmers to make more use of organic in place of synthetic fertilizers.



The Integrated Pest Management (IPM) pilot project has also led to increased product differentiation, production cost reduction and demand-driven service market development. These results arose from an IPM study tour to Australia in June 2007, jointly supported by GTZ and Terragro Technology Co., Ltd. (T-Tech), a private company well known in the agricultural field. Following on from the study tour, three tangerine orchards in Chiang Mai, and one in Mae Hong Son, totaling four out of seven tangerine farms joining the IPM study tour, participated in the project, which commenced in January 2008 and will be completed in late 2009. It is expected that the application of IPM techniques to tangerine farm management will increase productivity and product quality, whilst reducing production costs associated with chemical inputs.



The third sub-sector is saa paper, where interventions focused on product differentiation, promotion of environmentally friendly colour and dyeing techniques pulp production technology. Commercially available non-chemical based colours were introduced to small and medium sized saa paper factories in Phrae, Lumpang, Nan, Chiang Mai, and Chiang Rai through training programmes, jointly organized by IPC 1, the Department of Environment and Quality Promotion (DEQP), Clariant Co., Ltd., a supplier of certified dyes for the paper industry, Panorama Co., Ltd., a company offering soy-based printing inks, and GTZ, in 2006 and 2007. Future challenges include increasing the adoption rate which is currently constrained by higher prices and the requirement to learn specific skills and techniques for dyeing saa pulp.

For the first time in Thailand that a simple clean technology, which offers a solution to the polluted waste water generated by the conventional process of cooking saa bark with sodium hydroxide, was brought to the saa paper industry. Introduced by the Thailand Institute of Scientific and Technological Research (TISTR) and GTZ during June 2007 and February 2008 to help SMEs that cannot afford to invest in such an expensive waste water treatment system, the method solves a long-standing waste water problem. Commercial trials of the sodium hydroxide substitution process took place in Chiang Mai, Chiang Rai, and Phrae provinces, and were followed by dissemination of the successful results to saa paper producers in Northern Thailand. This was accomplished through seminars organized under the environmentally friendly saa paper standards programme of the DEQP, who will take responsibility for promoting this clean technology nationwide during 2008.



In order to extend the impact of interventions implemented during the first phase of the PNAC project, IPC 1 and GTZ launched a second phase of the project, from May 2008 to April 2010. Although the project's scope and activities were limited by budget constraints, greater integration and coordination between project partners will help ensure effective and efficient implementation of project interventions. A 2-day planning workshop for PNAC Phase II was held from May 29<sup>th</sup>-30<sup>th</sup>, 2008 at the Amora Tha Phae Hotel, Chiang Mai. The workshop agreed to maintain the broad project strategy, sub-sector strategies and focal areas of Phase I, whilst agreeing on improvements in project management areas e.g. collaboration, planning, monitoring, and evaluation processes. The project design follows an integrated strategy of the Thai-German programme addressing both economic environmental performances.

## How Does All of This Technical Assistance from Germany “Add Up”?



We wonder if any of our readers have asked themselves the question: “Is anyone keeping score of whether the aid from Germany or other countries actually makes a difference to the lives of “real people”?” Well, this question is being asked over and over again in places like Berlin, Washington, Stockholm, Brussels and the other capitals of countries that spend billions of Euros of taxpayers’ money to improve the conditions of ordinary people in countries like Thailand and elsewhere. Unfortunately, when someone asks this question they are usually overwhelmed by a mountain of documents that would take a lifetime to understand. Not a good solution!

We all know that life was not meant to be simple, but there are still things that we can do to make it less daunting. This is the “core idea” behind a new initiative of the Donor Committee for Enterprise Development. This committee has been meeting in a semi-informal way for the past 20 years to try to improve the global quality of private sector development projects funded by governments such as Germany, the USA, UK, and Switzerland, to name just a few. This group also includes multilateral agencies including the European Commission, the World Bank, the Asian Development Bank and the United Nations.

The group has proposed the development of implementation standards for enterprise development projects so that we can all “add up” factors such as extra jobs created and additional incomes generated by the projects that these donors sponsor. Is this difficult? Yes, but it can be simplified by approaching this as a kind of ISO 9000 standard for project management. Projects would need to be certified that they are keeping essential records needed to fully evaluate their impact in a consistent and comparable way. Of course the ultimate aim is better quality, efficiency and productivity arising from donor-funded projects.



What does all of this have to do with the TG-PEC? Well, certain sub sectors have been selected within the TG-PEC for pilot testing this new approach to quality management of enterprise projects. TG-PEC is now on track to have its first trail audit in October of this year! Readers, wish us luck!

## GTZ Joins with PTB (National Metrology Institute of Germany) and Thailand's Board of Trade to Develop Standards for Thai Agriculture



Agricultural products play a major role in Thailand's export market. However, exports to the EU market are still not very high compared to those of competitors from China and Vietnam. One of the main obstacles is the lack of an efficient and internationally recognized 'Quality Infrastructure'. Consumer awareness of food safety, chemical residues and environmental issues is increasing around the world, and is becoming an ever more important part of purchasing decisions. In order to access the EU and other developed markets, Thai agricultural products need to be certified in accordance with international standards. Hence, a well-functioning quality infrastructure is essential for increasing the competitiveness of Thai agricultural exporters in the world market.

Since 2006, GTZ has joined with the National Metrology Institute of Germany (PTB) in a project to develop and strengthen Thailand's quality infrastructure system for agriculture, food processing and food safety. The project includes activities to support small fresh fruit and vegetable farmers to achieve compliance with GLOBALGAP food safety and quality standards, thus enabling access to higher value markets worldwide. In addition, another activity benchmarks ThaiGAP with the GLOBALGAP standard (the dominant private sector food retailing standard in Asia, Europe, Latin America and Africa). The GLOBALGAP regulations have been translated into Thai to facilitate their understanding by small farmers- Thailand is the first Asian country to make such information available in its own language on the GLOBALGAP website.



After two years of activities implemented together with many Thai institutions, GTZ and PTB recently organised a top executive meeting to report accomplishments and propose new policies and actions to enhance Thailand's quality infrastructure. The meeting was attended by senior executives from Thai institutions including the Thai Industrial Standards Institute, National Bureau of Agricultural Commodities & Food Standards, and the Food and Drug Administration, Ministry of Public Health.

The results of the discussion can be summarized into 4 main areas:-

### **1. How should the Quality Infrastructure system work in Thailand?**

- There should be a clear national policy and strategy to develop the QI system in Thailand.
- The policy should allocate responsibilities for implementing each part of the Quality Infrastructure system.
- There must be close cooperation between the public and private sectors in the development of the QI system.
- The QI system should be well understood by all stakeholders in the value chain.
- Reliable services resulting from the system should be easily accessed by customers.
- The system should apply to both domestic and export agricultural products.

### **2. What do we need to do to make the Thai QI system work efficiently and reliably?**

- Establish a single legal framework or policy for the Quality Infrastructure system, which addresses common interests and avoids duplication.
- Establish a high-level coordination body to oversee the system's operation, with participation of all key players from public and private sectors
- Establish technical sub-committees with involvement of private sector and other stakeholders
- Ensure regular coordination through stakeholder meetings.
- Organize a workshop to enhance understanding of new food safety legislation.
- Build awareness and capacity of stakeholders for involvement in the QI system.
- Develop an integrated programme and projects with high-level technical and administrative support for implementation.

### **3. How can GTZ/PTB best contribute?**

- GTZ/PTB can both serve as mentors for the newly established National Committee e.g. the National Standardization Committee, the National Food Commission Committee, etc.
- Work to establish public awareness and strengthen capability to develop local expertise.

### **4. Next Steps**

GTZ/PTB will continue meetings with the key drivers of the different subsectors to identify the suitable sectors as working examples in the development of the QI system. GTZ/PTB will approach possible hosts to organize the following workshops.

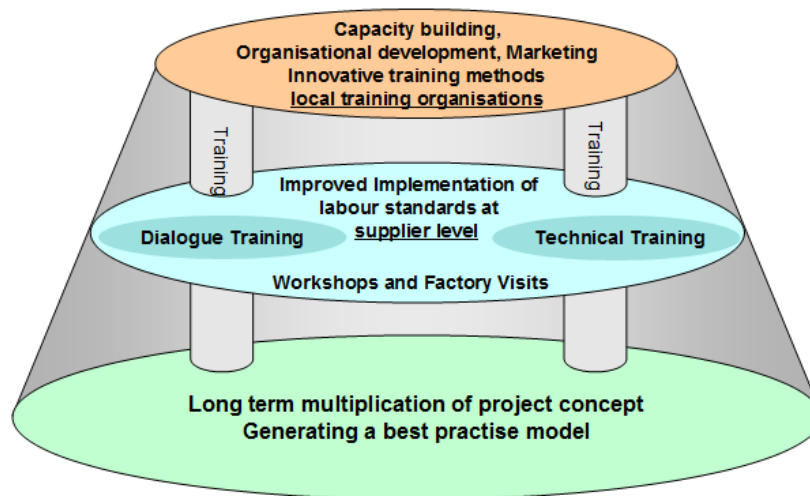
## Tchibo Joining with GTZ to Improve Labour Conditions of Asian Suppliers



Tchibo is one of the biggest chains of retail coffee shops and cafes in Germany. The GTZ “Worldwide Enhancement of Social Quality”, initiative was recently launched as a public-private partnership (PPP) project between Tchibo and GTZ. The project has two objectives: capacity building for local trainer organizations (trainer training) and improving working conditions for Tchibo’s suppliers around Asia. The project started work with the non-food sector in China in January 2008, and continued with Bangladesh in April 2008, and Thailand

in August 2008.

Meanwhile, Thailand is selecting 4-6 local trainer organizations to be supported through a series of training programmes, a supplier workshop and factory visits. Ten Tchibo suppliers will join the project, which aims at improving social standards within the supplier companies. International experts will develop a detailed training concept to enhance internal communication and cooperation between managers and workers as well as to institutionalize ‘good practice’ for better working conditions. Trainer training will enhance capacity of local trainers, and will cover dialogue-training as well as technical courses on basic topics related to social standards (e.g. discrimination in the work place, child and/or forced labour, occupational health, fair wages and working times). consultants.



Project Level and Target Groups

It is hoped that the three year pilot project will serve as a reference model for Asian countries, and we anticipate that the recommended best practices will be later implemented by other commercial enterprises. In the longer term the project aims at facilitating direct access for supplier companies to local specialist consultants.

## Forum on “The National Road Map for the Development of Bioplastics Industry”

A broad coalition composed of the National Innovation Agency (NIA), Thai Bioplastic Industry Association (TBIA), Office of National Economic and Social Development Board (NESDB), Petroleum and Petrochemical College, Chulalongkorn University (PPC-CU), National Research Council of Thailand (NRCT) and GTZ organized the “National Road Map for the Development of Bioplastics Industry” Forum on June 10, 2008.



A special lecture providing the overview of the national road map for the development of bioplastics industry was followed by the forum sharing viewpoints on the bioplastics industry development plan by representatives from both the public and private sectors. Topics covered included bioplastics industry development by TBIA, development of bioplastics R&D by PPC-CU and governmental perspectives and international collaborations on bioplastics by Innovation Department, NIA.

At the end of the forum, H.E. Mr. Wutipong Chaisaeng, Science and Technology Minister, presided over a press briefing on the “Road Map for Development of Bioplastics Industry” and delivered the closing speech.

The “National Road Map for the Development of Bioplastics Industry” is awaiting a Cabinet resolution. It is aimed to develop Thailand’s bioplastics industry within 5 years with a government budget of 1.8 billion baht. The road map focuses on preparing raw materials, accelerating development of existing technologies and introduction of new technologies to support the whole production process from upstream to downstream.

GTZ supports interventions under the collaborative “Promotion of Thai bioplastics Industry” project, which is a component of the road map as follows:

- Appointing consultants and technical experts on bioplastics
- Feasibility study for appropriate technology for lactic acid production from tapioca starch
- Study on policy supporting the promotion of bioplastics Industry
- Pilot project – Study on bioplastics in bio-waste management.

## Energy Efficiency in Shrimp Farms



GTZ, the Department of Fisheries (DOF) and the Department of Alternative Energy Development (DEDE) jointly implemented the “Promotion of Energy and Eco-Efficient Shrimp Farming in Thailand” project to enhance energy efficiency in shrimp farms. Participating shrimp farms in the pilot project are able to save about 30-40% of energy. Consequently, the project has developed a draft strategy and action plan for the project and organized a workshop to discuss the draft with project stakeholders including farmers, producers and relevant governmental agencies. The workshop also compiled comments and recommendations for the development of the final action plan for future

implementation of energy and eco-efficient shrimp farms in Thailand.

Workshop participants recommended implementing 3 sub-projects. Subproject 1 aims to increase awareness and capacity in energy management among shrimp farmers, with the public and private sectors collaborating to develop manuals and other learning tools on energy management, including information on investment and cost effectiveness of energy management in shrimp farms. A variety of communication tools will be developed to reinforce dissemination of information through diverse communication channels.

Subproject 2 is a pilot commercial shrimp farm to demonstrate best practices in farm management, energy management and the use of efficient technologies. Government and GTZ will support monitoring, data collection and data analysis processes. Some stakeholder groups also proposed demonstrations in both grid-connected farms and off-grid farms.

Subproject 3 deals with the replacement of inefficient engines. Most workshop participants agreed that shrimp farmers should replace existing engines with more efficient ones since this can immediately achieve major energy savings. Because adoption is limited by the high investment cost, practical, lower-cost alternatives such as energy-efficient aerators and smaller engines were also proposed. Clubs, associations and cooperatives will be responsible for member surveys assess the number of engines that need replacement. Group purchasing will then offer a means of reducing total costs for farmers.



## GTZ Organizes Social and Ecological Standards Colloquium



GTZ organized a colloquium on “Social and Ecological Standards: a Matter of Competitiveness - State of the Art and the Role of Governmental Organizations” at the Department of Industrial Works (DIW) on April 24, 2008. The highlight of the colloquium was the presentation on Social and Ecological Standards by Mrs. Vera Scholz, Director of the Office on Social and Ecological Standards, GTZ, Eschborn, Germany. The presentation covered social and ecological standards, the basis of enterprise competitiveness, a review of recent standards and the role of government agencies and eco-efficiency focusing on effective utilization of resources, cost reduction, minimizing environmental impact and appropriate resource management.

## GTZ Organizes Clean Production and Green Technology Colloquium to Enhance Eco-efficiency for Thai SMEs

GTZ organized a colloquium on “Cleaner Production and Green Technology: How to Supply Eco-efficiency Services to Thai SMEs” at the Federation of Thai Industries (FTI) on April 30, 2008. The colloquium featured lectures on clean production and green technology development, focusing on the results of a feasibility study on eco-efficiency services in Thailand”.

Clean production technology is the continuous development and improvement of production, service and consumption processes to minimize human health risks and environmental impacts by utilizing resources including water and energy effectively and minimizing wastes. SMEs can benefit from the use of clean production and green technology because eliminating pollution at source is the most effective approach and helps minimize waste treatment costs and produce environmentally-friendly products.



## GTZ Participates in Entech Pollutech Renewable Energy Asia 2008



GTZ joined the Entech Pollutech Renewable Energy Asia 2008 exhibitions and conference (4 - 7 June 2008) at BITEC, Bangna. The fair was opened by Lieutenant General Poonpirom Liptapanlop, Minister of Energy.

The German Pavilion, hosted by the German Chamber of Commerce, was one of the show's highlights. GTZ showcased its engagement in the field of energy management under the Thai – German Programme for Enterprise Competitiveness. The German Pavilion even offered visitors a chance to “meet German Experts in Renewable Energy” in order to introduce alternative technologies, and to be briefed on the latest global developments in renewable energy. Dr Rudolph Rauch of GTZ made a presentation during the parallel conference session on the topic “New Developments in Renewable Energy: Technology Markets and Policies in Southeast Asia”. Presentations were also given by CIM experts working in the energy field.

## Saa Paper Producers Join “World Environment Day 2008” Fair

The Department of Environmental Quality Promotion (DEQP) staged the “World Environment Day 2008” Fair from 5-8 June 2008 at IMPACT Exhibition and Convention Centre, Muang Thong Thani, Bangkok. The fair aimed to educate and increase awareness of environmentally-friendly production and consumption, and reduction of carbon dioxide emissions to mitigate global warming. World Environment Day is commemorated each year on 5 June. For World Environment Day 2008, UNEP launched its “CO<sub>2</sub> Kick the Habit! Towards a Low Carbon Economy” slogan. Activities included a seminar and forum on the low-carbon economy, educational shows and exhibits, displays of environmental innovations and booths selling environmental friendly products.

Under its “Green Factory” exhibit, DEQP and producers from Chiang Mai and Phrae provinces demonstrated new techniques for environmentally friendly saa paper production. In addition, Mrs. Anongwan Thepsutin, Natural Resources and Environment Minister graciously participated in this practical demonstration.

GTZ's efforts to support environmentally friendly saa paper started in 2005, in collaboration with DEQP and other public sector partners. Since then there have been a number of interventions aimed at educating and raising awareness among saa paper producers of the environmental impacts of synthetic dyes and other chemicals.



## Organic Longan- New Approaches for Market Development



Within the framework of initiatives for the promotion of organic agri-industry, GTZ and its partners (Institute of Product Quality and Standardization at Maejo University, Earth Safe Foundation and longan growers) convened a meeting on 11 June 2008 at Mae Jo University to identify novel marketing approaches for organic longan produced by 30 determined organic growers under the project. These growers had long suffered from depressed market prices and poor market access. The growers joined the international organic standards system in 2007, and the 2008 harvest of organic longan (currently undergoing the organic certification process by the Organic Agriculture Certification Thailand (ACT)) is expected to exceed 180 metric tons. The

EarthSafe Foundation is coordinating with TOPS supermarket and other distribution channels to disseminate information on the project's organic longan production, negotiate prices and provide logistic support. The project will hold an organic longan festival at Central Chidlom Department Store at the end of July to publicize and popularize organic longan at consumer level.

## Market Advantage for Longan Producers: Energy-Efficient Drying Plus Organic Farming

Prokchon Promgungwahn, the managing director of Promgungwahn Co. LTD from Amphur Salaphi (Chiang Mai) and his wife Tuddow Promgungwahn are convinced that their investment will pay. They constructed a new oven area with a drying system which was designed for a more efficient use of heated air. The furnace is fed with wood mostly from the orchards. Khun Prokchon took part in activities of a joint project of IPC1 (the regional Industrial Promotion Center) and GTZ. Visits to trade fairs of the food industry in Germany encouraged him, to shift to organic cultivation. Karl-Heinz Schaedla, a GTZ expert in food drying technology, gave hints how to improve the furnace to become more energy-efficient. On 15 July, the company's newly built factory will start the production of organic dried longan. The new production will create income for about 30 organic longan farmers who are members of the Chiang Mai Organic Longan Cluster.



## Upcoming Event

August 2008

Workshop on the rubber sector – “Evaluation and identification of raw intervention ideas for Thailand’s rubber sub-sector”  
to be presented by Faculty of Technology and Management, Prince of Songkla University.

Exact date and venue will be announced in the website [www.thai-german-cooperation.info](http://www.thai-german-cooperation.info)



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