



Dear Readers,

In our third e-newsletter we present focal actual subjects under the Thai-German Programme for Enterprise Competitiveness.

Productivity, business performance or marketing issues are the leading objectives of any individual company. They must be understood as intrinsic elements towards sustainable developments and improvements, not only in terms of economic benefits, but also in environmental and social aspects – striving for the triple-win.

We facilitate e.g. resource-efficient production, technological innovation, R&D applications, better market access through standards, good working conditions, energy efficiency, use of renewable energy...in fact fields which lead to improve the competitiveness of the Thai agro-industrial SMEs.

This variety shows you the nature of our interventions, i.e. to implement pinpointed measures, which have significant impact. I hope that our selection of articles meets your interest. Comment and feedback are always welcomed.

Sincerely yours

Juergen Koch

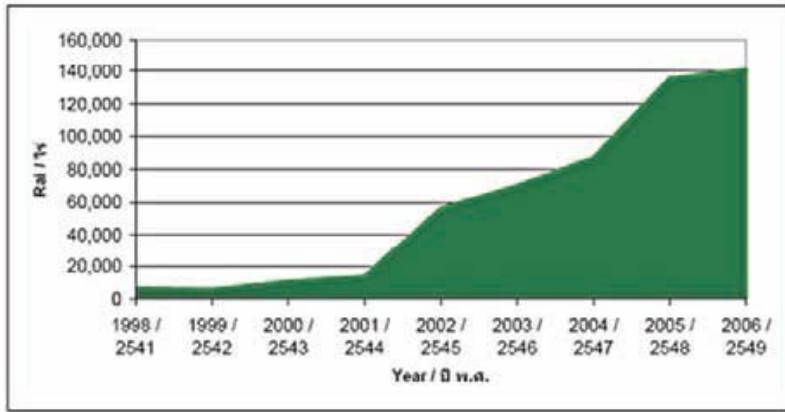
Country Director GTZ Thailand

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## Thailand: Organic Kitchen of the World. Challenges for the Thai-German Programme

In 2004 the GTZ-supported Thai-German Programme for Enterprise Competitiveness selected agro-industry as its new target sector for improving business services and stimulating eco-efficiency. At that time, few imagined that organic agriculture and the concept of sustainable consumption and production would become as relevant and popular as they have become today. On a global scale, the organic market in developed countries has increased dramatically, by around 25% p.a., fuelled not only by increasing consumer awareness and strong competition among food retailers, but also because of concerns over food safety, natural resource conservation, and the need for more eco-efficient approaches. The graph shows the growth of area under organic cultivation since 1998.



Despite Thailand's many competitive advantages and its strong position in exports of conventional produce, organic food suppliers are still struggling to meet the apparently insatiable demand from major export markets, due mainly to the limited production base and the challenges of compliance with increasingly stringent quality and safety standards.

In Thailand, responsibility for promoting the organic sector is divided between many government agencies, e.g. the Ministry of Agriculture and Cooperatives (production, research, accreditation, certification and extension), Ministry of Commerce (marketing), Ministry of Science and Technology (innovation and research), Ministry of Natural Resources and Environment (eco-labelling and resource conservation), and the Ministry of Industry (business support for SMEs, corporate social responsibility). Policy makers and the private sector are of course conscious of this fragmentation of responsibilities, and are making concerted efforts to collaborate through a newly-established National Committee on Organic Agriculture, consisting of experts from government agencies, the private sector, academia and civil society. The Committee has been charged with developing a coherent National Roadmap to help gear up production and address key constraints. These constraints are complex in origin, and the roadmap will address limitations in production and processing technology, certification, logistics, training, resource- and energy-efficiency.

The PEC is working to advise and assist government and private sector stakeholders to work together to develop capacity for certification bodies, define and control organic quality standards, improve training capabilities, develop domestic and export markets and promote awareness for entrepreneurs and consumers. At farm level, the PEC's interventions have selected several agro-industrial sub-sectors for pilot implementation of eco-standards and for eco-efficiency services. Moreover, the programme also provides specialist training in resource management, match-making between exporters and importers, and supports participation of exporters at international trade fairs. PEC has been selected to participate in the Thai Pavilion at the key forthcoming global trade fairs ANUGA (Cologne, 13-17 October 2007), and Biofach (Nuremberg, 21-24 February 2008).

In addition to farm-level and policy support, the project also supports entrepreneurs directly. PEC organizes field trips, study tours and business contact meetings for wholesalers and exporters, and brings Thai and German government officers together to promote policy dialogue aimed at identifying measures to foster ecologically-oriented agriculture. Thai private and public stakeholders need a coherent policy and implementation strategy, in order to enhance the competitiveness of organic agro-industry SMEs. It is in this context that the support of the Thai-German Programme is being increasingly requested as a mediator and facilitator.

## Integrating Environment-Friendly Shrimp Farming Practices with Coastal Resource Management

Historically, Thailand has been blessed with rich mangrove habitats and productive fishing waters, which have supported the livelihood of the local communities for centuries. However, it is evident that during the last 3 - 4 decades, industrialization, tourism, over-fishing, and fish farming activities have significantly contributed to the loss of the country's marine and coastal resources. According to a recent World Bank Report, it is estimated that during 1975 - 1993 almost 50



percent of Thailand's mangroves were lost, while the Thai fisheries sector has experienced 87 percent decrease in "catch per unit effort" between 1966 and 2003, which in layman's terms means that the average fisherman is now having to spend much more time and effort to obtain the same amount of fish that he used to catch.

Mangrove habitats play a large part both in the ecology and peoples' livelihoods, since they provide nursing grounds for juvenile fish and at the same time also help to protect the coastline against erosion caused by tidal waves. Thus, building on its success after the establishment of the first organic shrimp venture in Thailand, GTZ is teaming up with The World Conservation Union (IUCN) and the Regional Community Forestry Training Center for Asia and the Pacific (RECOFTC) to expand its efforts in a more holistic approach by attempting to integrate environment-friendly and more sustainable shrimp farming practices with community based resource management which is targeted at investment and management of coastal ecosystems, in particular involving mangrove rehabilitation.

Chantaburi is one of the coastal provinces where mangrove losses have been the most severe. The area in Koh Perid, Laemsing District, Chantaburi Province is a prime example of this. It is a 10 km stretch of coastline, which has experienced severe soil erosion, in large part due to the loss of mangrove habitats being cleared for intensive shrimp farming in the past. As a result, several hundred meters of the coastline have already been lost due to soil erosion, which means that during the last 20 - 30 years many shrimp farms have been lost while some local villagers have had to move their house 2 or 3 times already because the land is being claimed by the sea at an alarming rate. As shown in the picture, the remains of a water gate, which used to be part of a shrimp farm is now part of the sea.



GTZ and its partners aim to demonstrate a "pilot case" involving the community's capacity to initiate environment-friendly shrimp farming which is integrated with innovative resource management systems. Through the development of a sustainable business model, shrimp farmers will be encouraged to convert to organic or more environment-friendly practices, while at the same time they and the surrounding communities will be encouraged to play a part in mangrove rehabilitation and management. Hence, under this intervention, the local communities' involvement in conservation and coastal ecosystems management would be offered as an alternative to improve socio-economic conditions and their livelihoods.

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## Organic Shrimp Standardization

In order to improve the competitiveness of the Thai shrimp industry via organic production, GTZ and Department of Fisheries (DoF) have promoted and built up farmers' capacity in organic shrimp standardization. The cooperation includes introductory sessions on the production and marketing of organic shrimp, evaluating potential organic shrimp farms and two internal control system trainings.

These activities were supported through the cooperation of Sureerath Farm, Thai Union Feed Mill, and Thai Union Frozen, Organic Agriculture Certification Thailand (ACT), Earthsafe Foundation and Thai Marine Shrimp Association. Five introductory sessions were conducted between June-August 2007 in Chantaburi, Chacheongsao, Samut Songkram, Trang, and Surathani. In these sessions, the Thai Union Frozen and the Earthsafe Foundation focused on trends and potentials of organic shrimp both for domestic and export markets. DoF and ACT explained about the certification criteria. Sureerath Farm shared its experiences and philosophy of the organic farming and market development.



More than 300 farmers attended these five introductory sessions. Among them 27 intensive farms and 17 semi-intensive farms applied for the DoF organic standard certification. Three intensive farms, one group of intensive farms, and one



group of semi-intensive farms are interested in applying for the ACT certification. In order to evaluate the potential of those farms, in August this year staff of the above institutions have visited one group of semi-intensive farms in Samutprakan, two groups of intensive farms in Krabi and Trang, and two intensive farms in Songkhla. Because certification fees for individual farms are comparatively high, many of the farms try to apply for group certification. Hence, the programme also asked ACT to conduct two trainings on the internal control system for group organic certification. In July, 30 DoF staff members have been trained to be organic auditors. The second training was conducted for small and medium size farmers in August, including a field visit to Sureerath Farm, which provided best practices in organic intensive farming that already certified by European based Naturland.

Beyond above mentioned measures, Sureerath Farm presented their products to the public at Tops Supermarket, Central Bangna on 3rd August. The farm was also visited by the Minister of Agriculture and Cooperatives (MoAC) Dr. Theera Suthabutara and his Deputy Minister Dr. Rungrueng Isarangkul. To promote organic production MoAC plans to have the farm as a learning centre for organic shrimp production. The ministry has initiated discussions among the stakeholders, including frozen industries and retailer associations, to find out more about how to support and promote Thai organic shrimp in both domestic and export markets. The first meeting took place on 10 September 2007 at MoAC, with active participation by GTZ and its partners.



## Sureerath Farm Organic Story

Due to the nature of the business, shrimp farms are the ones taking the highest risk in the value chain of shrimp production. Shrimps are seen as a commodity product and therefore highly susceptible to price fluctuations. The shrimps can normally be sold at the farm gate, so the opportunity for shrimp farmers in terms of creating value added or profit margins are very limited. As a result, the shrimp farms are “price takers” and have little bargaining power in the market.

When GTZ decided to work in the Thai marine shrimp aquaculture sector, its key objective was to help the shrimp farms improve their livelihood through higher value added and sustainability. One strategy was to convert to organic farming, which yields higher prices while at the same time taking care of the environment. The other strategy for the shrimp farms was to develop their own export capability, so they don't have to sell the shrimps at the farm gate. Sureerath Farm shared GTZ's vision and adopted both strategies. Under the Thai-German Programme for Enterprise Competitiveness, Sureerath Farm was introduced to GTZ by the Department of Fisheries. Sureerath Farm has been in business since 1985 and is well-known for producing large sized black tiger prawns, while at the same time giving high consideration to food safety, nature and the environment.



Although very experienced in raising black tiger shrimps, Sureerath Farm did not have any market exposure. In February 2006, the management of Sureerath Farm went to Germany to explore the European market. During the trip, GTZ introduced Sureerath Farm to Naturland, which is one of the most well-known organic aquaculture certification agencies in Europe. Naturland and GTZ have cooperated in other countries before, such as organic certification of white shrimp (*penaeus vannamei*) in Ecuador and organic catfish (*pangasius*) in Vietnam.

As a result of the pilot project between GTZ, Naturland and Sureerath Farm, a standard for organic black tiger prawns has been developed for the first time. GTZ supports Sureerath Farm especially in the fields of export capability by advising them on marketing strategy for organic shrimps as well as providing linkages with European seafood importers and distributors. Sureerath Farm formally received organic certification from Naturland in July this year, becoming the first shrimp farm in Thailand to be certified.

## EGAT and GTZ talks on Energy and Renewables

Headed by the Permanent Secretary of the Ministry of Foreign Affairs H.E. Virasakdi Futrakul the Board of Directors of the Electricity Generating Authority of Thailand (EGAT) has been on a one-week study visit to Europe (Germany, France and Switzerland) this September. For the technical part in Germany EGAT asked GTZ to facilitate the visit to a Waste-to-Energy plant of the City of Berlin and the exchange of ideas on energy policy with the German side. At the GTZ Berlin Office, the German representatives have presented how Germany has uncoupled its economic growth from its energy consumption in the last two decades. Worldwide best practices by GTZ and its partners have also been presented on energy efficiency, renewable energy and its economic, social and environmental benefits. Also legal framework conditions, tax policies, costs structures, environmental mediation and management as well as emission trade have been intensively discussed.



**Board of EGAT at GTZ Office in Berlin, 11 September 2007**

While Germany has experienced a low, but steady economic growth (1991-2004 by 19.9%), its energy consumption and emissions have decreased in the same period. Germany also has tripled the share of renewable energy-based electricity from 1999 (4.6 %) until 2006 (12 %), creating 210,000 new jobs and reduced 97 million tons of CO<sub>2</sub>. This enormous potential in the fields of energy efficiency and

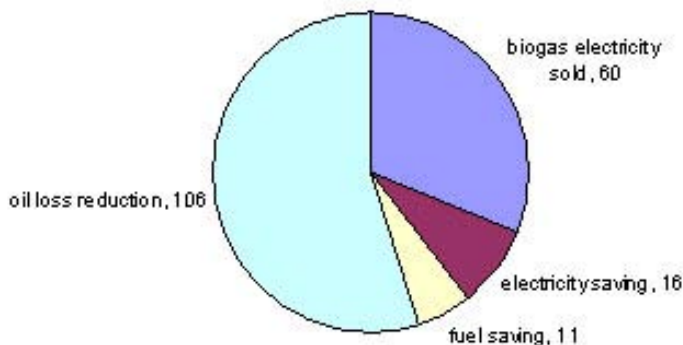
renewable energy needs to be explored further by Thailand, as world's number one in oil-consumption per GDP unit, in order to be less dependent on imports of fossil resources and to cope with the increasing energy demand.

### E3AGRO Impact Analysis: 300 Mio. Baht Annual Gains for Palm Oil Mills

The E3Agro Project (Energy and Eco-Efficiency in Agro-Industry), jointly implemented by GTZ and the Department of Alternative Energy Development and Efficiency (DEDE) of the Ministry of Energy, selected the palm oil industry as its pilot sector to increase productivity through eco-efficient interventions. The main objective of the project is to increase the utilization of biomass residues for energy production and to increase the energy efficiency of the production process. E3Agro's interventions are targeting at three key areas: supportive energy policy framework, strengthening service and technology providers, introducing eco-efficient technologies and management practices at company level.

18 months after starting the first interventions the impact on the palm oil industry has been analysed. Major productivity gains have been achieved through reduction of oil losses, electricity and steam consumption as well as electricity sales from biogas plants treating palm oil mill effluent.

Value added through performance improvement of BM PDMs [Mio Baht/a]  
(total: 193 Million Baht/a, status Dec.2006)



The overall benefit for all 31 mills involved in project activities is estimated to exceed 300 Million Baht annually. The major part, nearly 200 Million Baht annual gains have been achieved through eco-efficiency measures by the 16 mills participating in a benchmarking programme already. 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. Another 60 Million Baht are added from the sell of electricity from biogas plants.

Electricity sales from biogas plants are the fastest growing sector. At the beginning of the project no palm oil mill was selling to the grid. There was one pilot biogas plant at that time and it released methane unutilised into the air. By the end of 2006, five palm oil mills were operating biogas plants generating electricity through gas engines and selling it to the grid, adding income of 60 million Baht per year. By 2008, three years after the first project interventions, income from biomass energy projects (biogas and biomass power plants) is expected to increase tenfold to 600 Million Baht annually. The photo on the right shows a biomass boiler at an palm oil factory.



Presently, there are ten other biogas plants in planning, construction or start up, one of them with direct involvement of the project, applying new technology and with certified emission reductions according to the CDM (clean development mechanism) gold standard. Further two biomass power plants with capacities of 9.9 and 9.5 MW are under construction or start up. In 2010, five years after starting the interventions in the palm oil sector, annual electricity sales generated from palm oil mill residues is expected to reach 1200 Million Baht annually.

After the positive experience with the palm oil mills, E3Agro is now shifting the focus of its interventions to the shrimp and tapioca starch sector. The productivity improvement potential of each sector is estimated to be 4-5 Billion Baht annually. E3Agro aims to tap this potential by applying strategies and measures which have proven successful in the palm oil sector.

## Health and Safety First! Chemicals Risk and Competitiveness in the Thai Agro-Industry

The International Institute for Management Development (IMD) in Lausanne publishes one of the most authoritative annual rankings of countries by competitiveness. In 2003, IMD analyzed the competitiveness of 60 economies on the basis of 320 criteria. The International Labor Organization (ILO) plotted selected IMD competitiveness rankings in 2002 against its own occupational health and safety rankings. The results show that there is a strong correlation between occupational safety and health and the competitiveness of a country. Under this ranking, Thailand, in comparison to the United States and other European countries, exhibited lower levels of occupational safety and health and economic competitiveness. In fact, Thailand is currently ranked number 35 on the World Competitiveness Scoreboard.

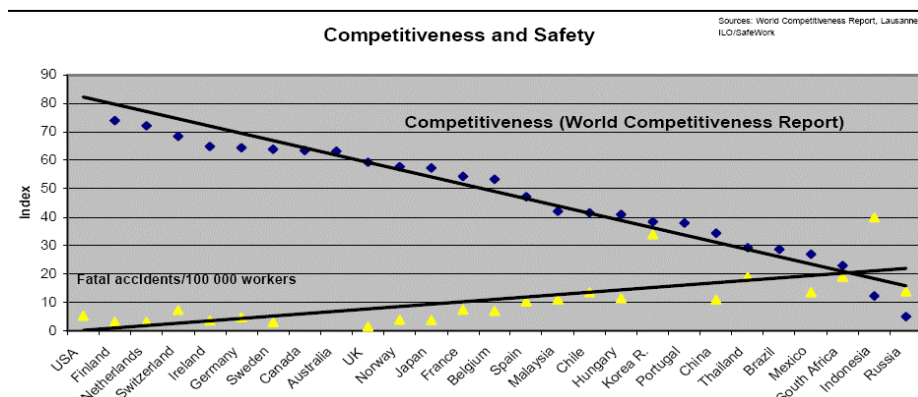
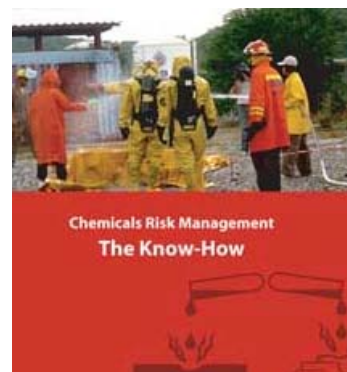


Figure 1 Countries competitiveness ratings (Source: World Competitiveness Report (Lausanne), ILO/ Safework)

Further studies have been commissioned by Thai-German Programme in order to explore the situation in the Thai Agro-Business. A study on the economics of chemicals risk management in relation to the competitiveness of agro-industrial SMEs conducted in early 2007 by the International Management of Resources & Environment (Faculty of Business Administration and Economics, TU Bergakademie Freiberg, a university in Freiberg, Germany), to be published soon, shows that the safe use of chemicals benefits the enterprises not only by preventing losses but also results in higher productivity. Better health and safety for the workers increases their productivity as they are higher motivated than workers who have to cope with worse conditions. Thailand's agro-business is one of the main driving forces for the country's economy. More than 50% of the total labour force is employed in the agricultural sector. In 2005, there were 2,249,718 enterprises registered in Thailand, of which 99% are SMEs. The use of chemicals in the agricultural sector is very high in comparison to other countries in Asia. Numerous chemical accidents and injuries happen each year. ILO estimates that 4 per cent of GDP is lost due to accidents at work and work-related diseases. In 2005, Thailand's GDP was valued at 176.6 billion USD. This translates into 7.1 billion USD of Thailand's GDP, lost through work accidents and diseases.



Another study from 2005 by the Mahidol University demonstrates that the factories dealing with agro-chemical processing or repacking, and which have implemented the Occupational Safety and Health Management Systems (OSH-MS, ISO 18000) are having 10 times less compensation to pay to employees in case of work accidents or work related illness than factories working without this system. In terms of loss reduction the factories implementing ISO 18000 are about 5 times safer than the factories without this standard. Thailand faces many common challenges. In particular, workers are generally unaware of hazards they are exposed to and preventive measures are seldom taken by the small enterprises, only by couple of larger ones. There is an urgent need for a more coherent legal framework and a higher number of qualified safety and health inspectorates. Those were the main reasons why the relevant Thai authorities asked GTZ for technical assistance on chemicals risk management issues. In the next newsletter issue, we will report on the impact of the project "Risk Management for Handling of Hazardous Materials by SMEs in the Bang-poo Area", jointly implemented by GTZ and the Industrial Estate Authority of Thailand (IEAT) together with the Department of Industrial Works (DIW).

## Matching R&D with Enterprise

The race is on! Thailand is aiming to move as fast as possible into the knowledge-based economy. Its competitors, however, are wasting no time in making the investments they need in their innovation systems. But the task is far from easy. Independent international rankings of innovation and competitiveness indicate a widening gap between Thailand and its neighbors. In 2006 Thailand's innovation ranking fell to 43rd out of 110 countries surveyed by the World Economic Forum. Thailand also slipped two places to 35th in its competitiveness ranking. Furthermore Thailand's indicators for both science and technology also highlight a worrisome trend; exhibiting a decline from 32nd place in 1997 to 48th in 2006. See the attached Table for a comparison between Thailand's R&D expenditure and a portion of its GDP and other Asian economies.

### R&D Expenditures at purchasing power parity

Region or country	R&D as % of GDPa	
	1992	2002
East Asia	0.7	1.2
Hong Kong, China	0.3b	0.6
Korea, Rep. of	1.9	2.5
<b>Singapore</b>	<b>1.2</b>	<b>2.2</b>
Taiwan, China	1.8	2.3
Southeast Asia	0.1	0.2
Indonesia	0.1c	0.1d
Malaysia	0.4	0.7
Philippines	0.2	0.1
<b>Thailand</b>	<b>0.2</b>	<b>0.2</b>
<b>China</b>	<b>0.8</b>	<b>1.2</b>
Japan	2.9	3.1
United States	2.6	2.6

These results demonstrate that Thailand is seriously lagging behind more advanced Asian countries in areas such as investment in science and technology and the proportion of expenditure by the private sector R&D. This is further heightened by the low absorptive capacity of Thai businesses and the poor connectivity within and among public and private sector agencies. Several reasons for this poor connectivity are suggested by the National Science and Technology development Agency (NSTDA): relatively few long term cooperative projects; public research not reflecting industry requirements; prevalence of research that does not lead to future technological opportunities and lastly, universities not recognizing that Thai firms are themselves an important source of technological know how. According to the World Bank Institute, unless these fundamental issues are tackled, Thailand could find itself in a "middle income trap" with low rates of private investment and innovation and a slow down on productivity growth.

GTZ and NSTDA are working on a critical part of this problem and have just recently concluded an agreement to develop Thailand's Regional Innovation System. Under this project the two organizations will collaborate in three regions of the country to generate specific innovations in the shrimp, fruit and vegetables, rice, rubber and palm oil sectors while at the same time developing sustainable linkages between R&D and universities that will form the basis of an enduring regional innovation system.



## Environment-Friendly Saa Pulp Production Technology

In Thailand, the mulberry paper (saa paper) industry is concentrated in the Northern Region in Chiang Mai, Chiangrai, Lumpang, Phrae, and Nan. This industry has developed and grown rapidly since it entered commercial channels and received strong support from the Government. It is reported that the mulberry paper industry can generate annual export revenues of THB 2,000-2,800 million with a steady growth of 10-20% per year, turning Thailand into the main exporter of mulberry paper products in Southeast Asia. The saa paper industry creates locally important income generating opportunities for 20,000 low income bark collectors around the Thai-Lao border, 300 mulberry paper producers, mainly in Chiang Mai, and 5,000 producers involved in paper handicraft making which mostly takes place at the household level.



A large amount of water and several chemicals, such as sodium hydroxide, hydrogen peroxide, and chemical dyes, have been excessively used in the paper processing. Sodium hydroxide, an agent causing pollution in waste water which is harmful to health and environment, has been used in boiling dried bark, hydrogen peroxide in bleaching cooked bark, and further chemicals in the dyeing process. A joint study in 2000 by the Institute of Research and Agricultural Productivity Development and Agricultural Industry, Kasetsart University, and the National Research Commission Institute, showed that the production of 100 saa paper sheets uses 17,887 litres of water and generates 16,300 litres of waste water. The value of COD (chemical oxygen demand) was between 10,000 and 13,000 milligrams/litre and the pH value between 10 and 13, indicating the high level of pollution. Only a few medium-sized factories can afford to have waste water treatment plants or to recycle their waste water in the production process. The small and home-based producers cannot afford such an investment; as a result, the polluted waste water is discharged in the public waterways.

It has been suggested that the production technology, particularly in the pulping process, needs to be modified in order to protect the environment. This issue had not been addressed until the Thai-German Programme for Enterprise Competitiveness joined hands with the Thailand Institute of Scientific and Technological Research (TISTR) to introduce an environment-friendly pulping technology to the saa paper industry. TISTR has developed technology to reduce the level of pollution in waste water. Through this simple technology, which requires neither technical knowledge nor a waste water treatment plant, sodium hydroxide will be substituted with potassium hydroxide in the boiling dried bark process. The pH value of waste water generated from the cooking process will be adjusted to neutral level with sulphuric acid. After the waste water with adjusted pH value cools down, it can be used for agricultural purpose or even sold to input suppliers for making plant fertilizer.



Currently, this sodium hydroxide substitution pulping process has been commercially implemented for the first time in Thailand at Tonpao Handmade Saa Paper Factory in Chiang Mai. The result was very successful. The factory owner will adopt this pulping technology to his operation by the end of 2007. Further commercial implementation of this technology will be carried out in Chiangrai and Phrae before the scaling up phase takes place.

**Knowledge about Industrial Performance towards the Pollution and Resource Efficiency: Information Systems at the Department of Industrial Works recently launched The Environmental Information System (EIS)**

The Management Information Systems (MIS) Project, implemented by the Department of Industrial Works (DIW) and supported by GTZ through IP Consult, has launched the Environmental Information System (EIS). Together with the Waste and Hazardous Waste Management System already in place in the current version since April 2006, the Thai authorities now have a state-of-the-art environmental control and planning mechanism comparable to those implemented by many industrialized countries. The respective ministerial regulation has come into effect on September 18, 2007, requiring all those industries to report biannually on their emissions who are assumed to have major air and water releases.

The EIS and related reporting procedures will contribute to make Thailand's industry ready for the future by strengthening the environmentally sustainable industrial development and encourage the application of eco-efficiency principles. The reporting procedure is highly efficient and transparent. Companies use an interactive form for reporting, downloadable from DIW's web-site. Subsequently, they submit the report to a governmental security server. Data plausibility and compliance with environmental laws and regulations is then checked by DIW officers, before all data is entered automatically into the EIS database, where it can be used to generate a wide range of analytical reports for governmental decision makers. Reports cover absolute pollutant release summaries by industrial sub-sectors and for spatial accumulations of production plants, timelines to identify tendencies and interactively defined eco-efficiency performance indicators.



**Public Information Center**

The Public Information Centre (PIC) is a web-based information service for the public and provides a new source of comprehensive and topical information on industrial environmental issues which can be considered innovative for Thailand. It has been developed by DIW with support of the MIS Project and launched in its complete version since May 15, 2007 (www2.diw.go.th/PIC). The web-site features data, maps and articles on: industrial waste and hazardous waste generation, DIW and MoI initiatives related to eco-efficiency and environmental management, submission and tracking of complaints on issues related to industrial waste, air and water pollution, news, events and links to industrial environmental agencies and NGOs, and brief and intelligible summaries of all Thai laws and regulations related to industrial environmental issues including descriptions about characteristics of the most important pollutants. High usage frequency and user feedback have proven the public interest in this information platform already.

## Going Organic for a Competitive Agro-Business



Ministry of Agriculture and Cooperatives, Ministry of Commerce, Ministry of Natural Resources and Environment, Maejo University, EarthSafe Foundation, Organic Agriculture Certification Thailand, Thai Organic Trade Association, Green Net Cooperative and GTZ jointly organized the fifth Eco-Efficiency Forum under the theme "Organic Industry Thailand - Tradition and Innovation".

Attended by over 200 persons, the forum focused on the challenges for policy instruments to promote sustainable consumption and production in the agro-industry. It contributed to the debate on developing a competitive agro-industrial sector according to the principles of the sufficiency economy and to share information on the state-of-the-art of eco-efficiency in agro-industry. The forum also gave a platform to exchange ideas and experiences on organic agro-business and enhanced the awareness among decision makers and opinion leaders in politics, business and public organizations, and encouraged for initiatives in this sector.

## GTZ presented Global G.A.P. Option 2 Project at ASIA FRUIT LOGISTICA

From 5 – 7 September, the Asia Fruit Logistica was held in Bangkok for the first time. Asia's only international fresh produce trade fair and conference event achieved high levels of satisfaction among top-level trade visitors. More than 3,000 visitors from 54 countries worldwide took part in the fair, demonstrating that the time is just right for a trade fair focusing on fresh fruits and vegetables in Asia.

GTZ used this opportunity to present its GLOBALG.A.P. Option 2 Project, a fresh produce quality assurance scheme for farmer groups which attracted a large crowd of decision makers from the fresh produce business worldwide. This is an excellent platform to showcase products to the market. At the fair, the farmers and exporters participating in the project had the chance to connect to a large number of top-level buyers and decision makers and this is the best opportunity to establish business contacts and find customers in Asia, Europe, and other countries.



It is planned that the project will extend and reach out to as many Thai small farmers as possible to improve the small farmer's ability to comply to specific food safety requirements and participate in export opportunities as well as encourage agricultural sustainability in Thailand.



## DEDE, DOF AND GTZ collaboratively organized Benchmarking Review Workshop to present Achievements of Consultation Services to enhance Eco-Efficiency of Shrimp Farms

Department of Alternative Energy Development and Efficiency (DEDE), Department of Fisheries (DOF) and GTZ recently organized a Benchmarking Review Workshop to present the achievements of consultation services to enhance eco-efficiency in shrimp farms in Chantaburi province. Producers from eleven shrimp farms participated in the event, which was an activity of the Promotion of Thai Marine Shrimp Project. The objectives of the workshop were to review benchmarking of energy eco-efficiency in shrimp farms in the previous quarter and to present achievements in energy eco-efficiency improvement in shrimp farms which included testing/monitoring of water quality in shrimp ponds and testing/assessing energy eco-efficiency of the aerating system.



## Industrial Promotion Center Region 1 and GTZ jointly organized Workshop on Dyes and Saa Paper Dyeing Techniques



Industrial Promotion Center Region 1 and GTZ collaboratively organized a two-day workshop on “Dyes and Saa-Paper Dyeing Techniques” for small and medium Saa-paper producers at Ton Pao Municipal, San Kampaeng District, Chiang Mai Province. The workshop aimed to promote understanding on dyes and dyeing techniques for an assortment of dyes, inform producers about the adverse effects of low quality dyes on the environment and occupational health and introduce alternative environmental friendly dyestuffs, both natural and eco-certified chemical dyes to Saa-paper producers. The workshop combined technical lectures, aiming to promote understanding on dyes and factors affecting the dyeing process, and the hands-on training including natural dyeing of Saa-paper demonstration.

The technology transfer was led by trainers from Panorama Company Limited, Earth Safe Foundation and Chiang Mai University. The workshop, participated by over 40 Saa-paper producers from Chiang Mai, Chiang Rai, Prachinburi, Nan and Lamphang, was a great success. Some participants have expressed the interest in switching from using chemical to natural dyestuffs. GTZ and other workshop co-hosts will collaborate with Panorama Company Limited and Chiang Mai University on the development and dissemination of a manual on natural dyeing in the future.

## Launch of Website of the Thai-German Programme for Enterprise Competitiveness

[www.thai-german-cooperation.info](http://www.thai-german-cooperation.info)

Since August 2007, the Thai-German Programme for Enterprise Competitiveness has its own website. The website functions as a platform for information about current events and recent developments as well as a source of information for background knowledge and documents affiliated with the projects and activities within the programme. This official website of the programme will cover all future programme activities, including information from out-phasing websites of different projects. GTZ Thailand welcomes all partners and interested persons to check out the new website and help us with your feedback to improve and adjust it to our partners' and clients' demands.

gtz Office Bangkok

Federal Ministry for Economic Cooperation and Development

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### THAI-GERMAN PARTNERSHIP PROGRAMME FOR SME COMPETITIVENESS

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**Events** **Who We Are** **Latest News**

**Organic Industry Thailand - Tradition and Innovation**  
5th Eco-Efficiency Forum  
Friday, 06 July, 8:30-17 h,  
Thansetthakit Building,  
Bangkok H.E. Rungruang  
Isarangkura, Deputy  
Minister of Industry and  
Commerce

Thailand and Germany have been cooperating in the field of Technical Assistance for over 40 years. On the Thai side this Technical Cooperation is coordinated by the Thai International Development Cooperation Agency (TICA) and on the German side by the German Federal Ministry for Economic Cooperation and Development (BMZ) with GTZ (German Technical Cooperation) as the German implementing organisation. The current focus of Thai-German collaboration is on enterprise competitiveness with a particular emphasis on promoting small- and medium-sized enterprises (SMEs) using a market development approach.

05/Jul/2007  
**GTZ Thailand Newsletter No. 2, Jul-Sep 2007**

**How Can We Help You?**

- How does the programme increase the competitiveness of SMEs?



## Upcoming Events

4th – 7th October 2007

Innomart at Hall 4 Impact Exhibition, Muang Thongtani, Nonthaburi. For further information see [www.nia.or.th/innomart](http://www.nia.or.th/innomart)

11th October 2007

Colloquium: The Economics of Chemicals Risk Management. Presentation and discussion of the results of studies in the framework of the T-G PEC.  
16:00 - 18:00 at King Mongkut's Institute of Technology Ladkrabang

12th – 13th October 2007

2nd Euro-Asia Conference on Environment and Corporate Social Responsibilities (CSR): Towards Sustainability Management. Siam City Hotel, Bangkok.

14th – 17th October 2007

ANUGA, International Food Fair, in Cologne, Germany; in cooperation with the DEP (Department of Export Promotion). Partner Country this year is Thailand. For further information see [www.anuga.com](http://www.anuga.com)

23rd November 2007

The 6th Eco-Efficiency forum on “Eco-Industry: efficient, responsible, profitable! How SMEs can profit from cleantech, eco-design and sustainable consumption” For further information see [www.ecoefficiency.info](http://www.ecoefficiency.info)

23rd – 27th January 2008

Paperworld 2008, in Frankfurt am Main, Germany. For further information see [www.paperworld.messefrankfurt.com](http://www.paperworld.messefrankfurt.com)

21st – 24th February 2008

Biofach 2008: World Organic Trade Fair, in Nuremberg, Germany. For further information see [www.biofach.de](http://www.biofach.de) or [www.biofach.com](http://www.biofach.com)

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