gtz Office Bangkok

Enterprise Competitiveness . Climate Protection . Eco-Efficiency . Business & Financial Services . Value Chain . Innovations . Renewable Energy . Certification & Labelling . CDM . Environmental Management . CSR . Technology Transfer . Policy Frameworks . Capacity Building . Sustainable Development and more ...

Newsletter of Thai-German Projects by GTZ & Partners Issue #8 January-March 2009

Dear Reader,

The year 2009 marks an important milestone in the Thai-German partnership for sustainable development. After having touched almost all major issues of technical cooperation, we now also move into new, challenging fields of regional and global concern. Whether the Climate Protection Programme, Sustainable Palm Oil for Bioenergy or the initial discussions on trilateral cooperation, all these activities show that Thailand became a hub for international development cooperation and plays a crucial role in the region. This issue of our newsletter introduces the new projects and programmes funded by the German Government and gives an outlook on the second phase of the Programme for Enterprise Competitiveness and Eco-Efficiency.

We wish you a happy and prosperous Year 2009!

Your Newsletter Team

News & Features

Phase II of the Thai-German Programme for Enterprise Competitiveness

GTZ hosted the 4th Advisory Board meeting of the Thai-German Programme for Enterprise Competitiveness (TG-PEC) on December 11, 2008. H.E. Dr. Hanns Heinrich Schumacher, German Ambassador to Thailand and Mr. Chatchai Boonyarat, Vice Chairman of the Thai Chamber of Commerce graciously presided over the event. The annual event is to report the Programme's achievements during the previous year as well as the achievements of the Phase I (2005-2008) of T-G PEC to the advisory board members, comprising both German and Thai senior executives of the business community and partner institutions. The meeting also gave its outlook on Phase II (2009-2012).

Focus on Outreach and Energy

For Phase II, GTZ and its Thai partners will continue to work together to strengthen the competitiveness of SMEs in the agricultural sector. The main objective is to disseminate the successful results of Phase I to reach out to more SMEs and farmers. To achieve this, GTZ will focus on two main strategies: first, to scale up the results by further developing private sector business, financial and eco-efficiency services, and secondly, to enhance the policy framework and the role of business membership organizations.

The programme will further address weaknesses within the value chains and special focus will be placed on innovations and certification schemes which may help further enhance the competitive-ness of Thai companies, and facilitate access to foreign markets with high quality products. Energy efficiency and renewable energy will receive special attention because of its huge saving and market potential as well as its environmental value. Moreover, in phase II the PEC will continue to facilitate trilateral cooperation between Thailand and Germany, in order to jointly support the less developed neighbouring countries in the region. The Advisory Group noted that for the interventions on standards & certification, besides the economic benefits (e.g. new markets and corporate image), entrepreneurs will also realize the environmental and social values that underpin the standards. Participants provided important guidance to provide TG-PEC with an appropriate and agreed focus during its implementation of Phase II, and endorsed the following principles:

- PEC shall continue its cooperation with 'multipliers' such as business membership organizations in order to gain cost-effective access to larger target groups.
- PEC shall continue to increase the level of involvement of its Thai partners in designing interventions, in order to address their needs even better. This will also help build a higher sense of ownership and pride, as well as building capacity.
- Apart from serving as a facilitator, GTZ might itself take on a role as service provider in the future, especially for large-scale and complex tasks, which need international expertise.

Achievements of Phase 1

The first phase of the Programme focused on strengthening the competitiveness of Thai SMEs in five selected agricultural sub-sectors: palm oil, shrimp, fruit and vegetable, saa paper and tapioca. The focus of the two components, 1) business and financial services, and 2) eco-efficiency services, were on improving productivity, product quality and management, introducing innovations and efficient use of resources. The achievements of the successful Phase I can be summarized as follows:

Palm Oil Industry

A total of 2,363 small-scale oil palm growers participated in the training activity, resulting in a 10% increase in palm fruit yield, equivalent to an additional annual income of 44 million baht. Soil and palm leaf analyses conducted to identify a suitable fertilizer formulation increased oil palm yields by 15-20%, equivalent to an additional income of 20%.

Sixteen participating palm oil mills were able to reduce loss of income amounting to 753 million baht by reduction of oil loss during the production process, and by efficient resource utilization. They also earned an additional income of 51 million baht from the sale of electricity generated from biogas.

Shrimp Industry

The soil analysis and improvement pilot project increased shrimp yields by 10% in participating shrimp farms, and the energy-efficient pilot project achieved a 15% reduction in energy consumption. To date, the initiative to promote organic shrimp production and access export markets has resulted in new orders for 60 metric tons of certified organic shrimps from participating shrimp farms, with an estimated total value of 750,000 euros (16,665 million baht). It is anticipated that orders for organic shrimps will rise further to 500 metric tons during 2009.

Saa Paper Industry

The Saa Paper Project succeeded in reducing saa paper production cost by 6.4% through efficient use of chemicals, water and energy. The highest reductions of chemical and water usage were 20% and 10%, respectively, and some producers also reduced energy consumption by 40%. One of the environmentally friendly production standard criteria established by the Programme specified the substitution of sodium hydroxide with potassium hydroxide, which does not affect water quality. On the financial side, profits from the sale of environmentally friendly saa paper products increased from 16.87% to 33.37%. In light of these encouraging outcomes, a collaborative initiative was launched in Lao PDR with relevant governmental offices, in order to improve the quality of mulberry bark. Much of the mulberry bark used in Thailand for saa paper production is imported from Lao PDR. Besides improving the quality and grade of raw materials supplied to the Thai producers, Laotian farmers earn additional income from the initiative.

Fruit and Vegetable Industry

Certification is an important step to increase export opportunities for Thai fruits and vegetables. To strengthen the industry, the programme assisted 50 small-scale growers to achieve GlobalGAP Option2 certification, generating an additional income of 16% and a yearly committed purchasing order.

Moreover, the Tangerine Input Supplier Advisory Service, by recommending appropriate chemical fertilizer application to 1,200 orchards, resulted in a 6% lowering in production costs. Longan Farm Management Service was able to increase the yield of grades AA and A longan by 46% while reducing costs by 17%. Moreover, introduction of a new drying technology reduced energy costs by 19%.

Tapioca Industry

Six tapioca starch processing factories participated in the pilot project. After participating in a benchmarking exercise and application of a MIS (Management Information System), the factories implemented steps to improve the efficiency of energy and resource consumption to improve overall eco-efficiency, and in the process were able to save costs of up to 76 million baht monthly. Their achievements convinced another six factories to adopt the concept in November 2008. Moreover, the project has provided support to stakeholders of sustainable production of tapioca for ethanol production.

Regional Programme on Commercialisation of Biopesticides Extended

A regional GTZ initiative launched in 2003 to provide commercially viable and environmentally sound solutions for modern crop protection and pest control without using toxic chemicals has been extended for 14 months until the end of 2009.

Increased consumer awareness and demand for safe food for export as well as for domestic markets are driving significant changes in agricultural practices in Southeast Asia. These changes continue to enhance the competitiveness of the biopesticide market, particularly for plant protection products. Based on demonstrations of the effectiveness of products such as biological rodent control, pheromones and other biopesticides, and combined with appropriate production and marketing concepts, the project sets out to convince the local private sector to invest in such products to replace synthetic pesticides.

For example, through a public-private partnership with Mars Inc. in Indonesia, GTZ helped a local company to commercialize a new pheromone designed to lure one of the most noxious pests of cocoa. Availability of this new technology at an affordable price empowered over 200 smallholders in a pilot area in Sumatra to improve quality and generate additional income. Since pheromone products are permitted under organic certification, certification for organic production is also facilitated. During a product launch at the National Cocoa Conference in Bali in October 2008 the project's strategy was well received by both private and public sectors, and has the potential to help several hundred thousand cocoa farmers in Indonesia.

Another success story is the implementation of biological rodent control using a protozoan parasite, which was the first product produced and promoted in Thailand since the start of the programme. Launched in cooperation with a local company and the Department of Agriculture in Bangkok, the product (tradename "Prorodent") now has an estimated market share between 4.5% and 6.8%.

Registration has been completed also in Laos and Vietnam, and is pending in Indonesia, Malaysia and the Philippines.

In Thailand, the Biopesticide Project also has teamed up with the Thai-German Programme for Enterprise Competitiveness, where it prepares the ground for introduction of pheromone mass trapping technology in longan orchards to combat insect pest and strengthen organic production. In oil palm, trials using a new type of fertilizer are underway in cooperation with the local plantation industry to raise production efficacy.

Besides model products, the program's scope has been extended to improve the regulatory framework for biopesticides. In cooperation with OECD, the international business association IBMA (International Biocontrol Manufacturers' Association) and regulatory officers from various countries in the region, guidelines for registration of biopesticides have been drafted and submitted for consideration for adoption by ASEAN. Because inappropriate regulation is a major obstacle for commercial adoption of environmentally friendly biocontrol methods, the extension period will be mainly used to negotiate and prepare a joint programme with ASEAN that aims at harmonization of the regulatory framework.

The German Federal Ministry of Economic Cooperation and Development (BMZ) expressed its satisfaction over the results achieved so far, and an external evaluation had attested the project to be on the right track in dissemination of environmentally friendly technology.

Dr. Thomas Jaekel
GTZ Principal Advisor
Commercialisation of Biopesticides in Southeast Asia

Mobile: 081-712-5059
E-mail: thomas.jaekel@gtz.de
Website: www.biopesticides-seasia.net

GTZ supports bilateral collaboration in the German Technology Symposium

The German Technology Symposium, held in Bangkok in November 2008, focused on energy and environmental technologies and climate change- new priority areas for both GTZ and the Thai government. GTZ conducted three symposiums on energy, climate change and capacity building. The symposium focused on their relevance to and impact on climate change, and attracted considerable interest from both the public and private sectors, including students. The human resources placement organisation for German Development Cooperation (CIM) shared the GTZ exhibition booth, and provided displays of CIM's projects in Thailand. CIM staff members were on hand to provide information to Thai organizations interesting in recruiting foreign experts at the local rates. The discussions of the symposium are summarized below.

Symposium on Energy Issues

This symposium was organized by GTZ to highlight the role of renewable energy and energy efficiency measures in contributing towards an ever-increasing demand for energy, and also on their role in mitigating the impact of climate change. Even by conservative estimates, over the next 20 years energy demand in developing countries will at least double. If this demand is primarily satisfied by fossil fuels, enormous environmental damage will ensue, both locally in the form of air pollution, and globally in its contribution to climate change. Increasing the use of renewable energy (RE) and energy efficiency (EE) measures are effective ways to help curb these effects. In many cases, industry and private households are already benefiting from cost reductions resulting from more efficient schemes. Beside such concrete measures, improvements in the political framework and the introduction of targeted incentives are regarded as important in fostering business confidence in expanding the renewable energy sector. In this regard, finance for investment in renewable is considered one of the most crucial barriers. This symposium focused on financing mechanisms to support necessary changes.

The symposium's key questions were as follows:

- How to promote higher energy efficiency and the production and use of renewable energy?
- How to create or nurture an enabling environment for investment?
- What are further possible areas for bilateral cooperation between Thailand and Germany?

To answer these questions GTZ invited three keynote speakers representing the Thai government- Mr. Sirithan Pairoj-Boriboon (TGO), Dr. Prasert Sinsukprasert (DEDE) and Mr Rangsan Sarochawiksasit (DEDE). GTZ is indebted to all three experts for sharing their insights during the final panel discussion.

Mr Torsten Fritsche (GTZ) opened the symposium with a short introduction and an overview of German experiences. He presented key figures on the RE & EE policy and promotion programme in Germany and its impact on development of the two areas. Lessons learned from policy implementation in

Germany and the worldwide experiences of GTZ in supporting RE & EE project development were shared with the audience.

The first key note speaker, Mr Rangsan Sarochawiksasit of the Department of Alternative Energy Development and Efficiency (DEDE), presented Thailand's own RE & EE plan including policy measures to stimulate RE & EE development. Mr Rangsan's presentation was followed by the key note by Dr. Prasert Sinsukprasert of the Department of Alternative Energy Development and Efficiency (DEDE) with a presentation on the energy efficiency Loan Fund and tax incentive scheme. Dr. Prasert also explained the range of different fund in mechanisms now available in Thailand, including the Revolving Fund and ESCO Fund. The presentation was especially relevant to participants from the private sector who gained an enhanced understanding of how to access existing funding mechanisms to support planned RE and EE investments. Case studies of projects already benefitting from such support were presented, which should serve to motivate more investors and project developers to consider further RE & EE projects.

The third keynote speaker, Mr. Sirithan Pairoj-Boriboon of the Thailand Greenhouse Gas Management Organization (TGO) presented an overview of the Clean Development Mechanism (CDM) as an international financial instrument to offset carbon emissions. Private sector operators in Thailand can access CDM support via the TGO.
After briefing participants on the current status of CDM worldwide, Mr Sirithan provided an update on Thailand's CDM projects, highlighting the need to develop more CDM projects. Finally, he gave an outlook on the future development of CDM and expectations beyond the Kyoto Protocol.

The symposium ended with a panel discussion to discuss challenges and opportunities for bilateral cooperation and how German technology can support the RE &EE development in Thailand. The symposium was attended by more than 150 high level participants from a diversity of stakeholder interests, highlighting the strong concern and relevance to Thailand.

The energy symposium as well as the GTS exhibition has shown that interest and demand for German technology, service providers and expertise are very high in Thailand. The feedback and results from GTS 2008 are additional reasons for GTZ to continue and even extend their services in Thailand's energy sector.

Symposium on "Capacity building: the key to successful transfer of know-how"

Whenever new technologies, innovations and structural changes play a crucial role in reform and improvement processes, lack of essential technological skills and implementation capacity are often cited as major obstacles to success. Identifying these needs and strengthening the performance of individuals, organizations and networks, is therefore crucial, and facilitates an effective and sustainable change process. Beside suitable technologies, management expertise is also needed at all levels in both public and private sectors.

To demonstrate the benefits of this approach, as part of GTS08 GTZ and its partners conducted a symposium to review successful cases in capacity building from Thailand and the region. The symposium's aim was to identify conditions and drivers of successful change processes and implementation. Four examples were presented, focusing on technology transfer and capacity building measures: Waste Management in Phitsanulok, Chemicals Risk Management in Thai Industry, Clean Development Mechanism (CDM) in India and Sustainable Urban Transport in Asia. Although the cases were quite different in terms of structure, key technologies, target groups and level of stakeholder involvement, the presentations highlighted a common characteristic- that external awareness-raising and capacity building measures are typically needed to stimulate change to existing systems.

In his presentation, Mr. Dr. Suthi Hantrakul, Deputy Mayor of Phitsanulok, commented on the need for greater public involvement in city development:

"*I would like to call it passion, this is what we need, a deep desire to look for the most benefits and win-wins, involving the public and communities so that everyone understands the problems fully, and participates fully in solving the problems.*"

In CDM field, Mr. Torsten Fritsche, Component Director for Eco-Efficiency and Energy issues in the T-G PEC, emphasized that the whole country needs to prepare for this new financial mechanism:

"*The availability of CDM funding opportunities. Without supporting training workshops and continuous acquisition of market knowledge would never succeed whether in India Thailand or in Germany. The training courses need to target government agencies, banks, companies, consultants, investors at several different levels. Backing this up of course effective international trade cooperation and networks are also needed in order to make CDM work for Thailand. Effective support for capacity building has helped position India as the country with the most advanced implementation of CDM.* "

Mr. Manfred Breithaupt, GTZ expert on sustainable urban transport, added:

"*In order to manage traffic problems in big cities, such like Bangkok, one needs to learn best practices from each other. It takes time and willingness, besides technology, for decision makers and citizens to realize and understand what it's best for their city, in what kind of city they want to live in the future. Capacity building is therefore never a one way track, but a mutual learning environment for different people from different fields. This is one of the reasons for our regional and holistic approach.*"

Khun Helen Aromdee, Senior Expert from the Department of Industrial Works add when she presented an overview of chemicals risk management in Thailand over the past decade, and the attempt to bring Thailand into compliance with international standards and requirements:

"*Sometimes we do not see the immediate benefit of capacity building, as we do when we buy or build something. In the field of chemicals risk, the benefits are intangible, it's more about not seeing something, such as major accidents*".

Mr. David Oberhuber, the new Country Director of GTZ Thailand, summarized it as follows:

"*So it is also the 'software' which contributes to the success. It is about the people involved, not only about hardware such as machines, buildings, or equipment. This is also the reason why we and our partners are focusing on capacity development in parallel to our collaboration with technology and hardware providers.*"

Symposium on “Climate Change Strategies: Economic, efforts and potential”

Dr. Kosit Panpiemras, the Chairman of the Board of Executive Director, Bangkok Bank Public Company Limited gave the keynote address on the topic “Capacity Building and Technology, Investment and Profit”. He underlined the necessity and urgency to cooperate internationally on this global issue. He also drew attention to the emerging economic opportunities for Thailand, mentioning as an example Thailand’s environmental service industry, which can and must grow with the new challenges. Concepts such as resource-, energy- and eco-efficiency are the key to optimizing cost structures, and at the same time directly tackling environmental issues and contributing to sustainable development.

In her presentation on “The Thai Response to Climate Change” Dr. Punjaporn Weschayanwiwat, of the Thailand Environment Institute, presented the status quo of Thai efforts in the field of climate change. Although Thailand is not among the largest global sources of greenhouse gases (GHGs), the country will nevertheless face the impact of global climate change. Among the future impacts that Thailand must plan for today are a rise in the frequency and severity of natural disasters, new and re-emerging diseases, changing agricultural products, soil erosion and land loss, in particular from rising sea levels and human stress factors. Thailand has for more than a decade been involved in developing a climate change policy.

Dr. Martin Pehnt from the Heidelberg Institute for Energy and Environment (IFEU) described some European approaches and policies. He focussed on Germany’s climate change policy and practical initiatives which have already resulted in surpassing the country’s Kyoto Protocol commitments for CO2 reduction. Among the world’s top economies, Germany is a leader in energy efficiency and in the contribution of renewable to final energy demand. The discussions demonstrate that the two countries could profit from increased levels of cooperation in this field, as Thailand’s emission mainly comes from the energy (> 50%) and agricultural sectors (25%).

In the agricultural sector, the Thai-German Programme for Enterprise Competitiveness has already demonstrated how individual enterprises can profit both economically and ecologically by implementing energy- and eco-efficiency best practice.

In regard to the urban built environment, Professor Dr. Juergen Baumueller (University of Stuttgart, and former Director of the Climatology Department of the City of Stuttgart) demonstrated the high potential benefits achievable by adapting to climate change through improving the effectiveness of city planning and management. A number of success stories were cited as examples of how to adapt urban development and construction to climatological information, bringing improvements in energy efficiency and urban air circulation.

Finally Burghard Rauschelbach from the GTZ Environment & Climate Change Division, highlighted the potential of existing Thai-German cooperation and networks, whether in the fields of research, economics or politics, Citing the example of the Thai-German Climate Protection Initiative of the German Environment Ministry, it is clear that Thailand and Germany should make use of this unique opportunity to learn from each other and profit from existing cooperation.

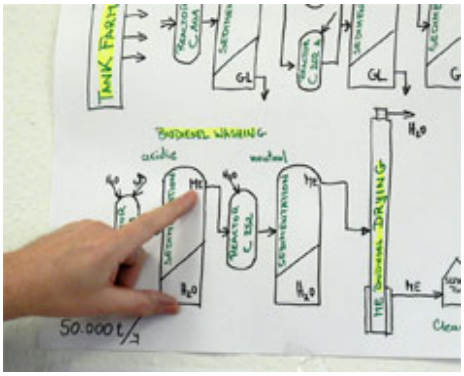
Presentations of the symposium can be downloaded from our website:
www.thai-german-cooperation.info

WE Project Holds its First Tchibo Supplier Workshop

Tchibo, as well as operating one of the largest coffee shop chains, also sells various other categories of merchandise in Germany and other European countries. The "Worldwide Enhancement for Social Quality (WE)", a Public-Private Partnership project between GTZ and Tchibo, organized a workshop for Tchibo suppliers operating factories in Thailand and Lao PDR. The workshop's objectives were to raise awareness among Tchibo suppliers of the increasing importance of Corporate Social Responsibility (CSR) as a core business principle, to improve their ability to meet and comply with international CSR standards and to support the qualification of participating suppliers. Worldwide, there is increasing consumer focus on CSR as an important factor influencing their purchasing decisions. Other objectives were to inform Tchibo suppliers about the WE project background, benefits for participating suppliers and qualification concepts that can be applied to their factories.

The 2-day workshop was attended by 26 representatives from 9 suppliers (10 factories), producing a range of goods, including wood furniture, apparel and scented candle manufacturers from Bangkok, upcountry Thailand and Vientiane, Lao PDR. Following the workshop, both the Thai trainers and international coaches conducted factory visits to offer an on-site advisory service, discuss relevant issues, and jointly develop action plans. GTZ has almost 3 decades of experience in promoting CSR standards among private enterprises, starting with a campaign to promote organic agriculture in 1980, which was extended in 1990 with a new project to access niche markets. In 2000, GTZ headquarters established an Office for Social and Ecological Standards and an Office for Public-Private Partnerships to provide comprehensive support for CSR. Since then, GTZ has implemented CSR programs at all levels: macro, meso and micro levels in many countries, including an ongoing project in China, India, Bangladesh and Thailand.

Making Money from Ideas: Fraunhofer Supports Thailand's Innovation System



Commercializing "know-how" is as much an art as it is a science. How do you move from developing interesting ideas to starting a business that makes a lot of money? The answer is: "It's not easy!". But if anyone knows this process it is the Fraunhofer Venture Group from Munich in Germany, because their job is to take the 250 patents that Fraunhofer's research institutes register every year and then evaluate if there is a viable business behind the invention. These are people that are not impressed with fancy presentations on the "revolutionary nature of an invention", but rather on whether there is money to be made by licensing or spinning off the invention to investors in the private sector.

In November the two top managers of this Fraunhofer Venture Group visited Thailand to give practical tools and tips to four regional teams from three Thai universities that are trying to do just this- commercialize the know-how of their cutting-edge scientists. Participants at this workshop were members of the Regional Innovation Intermediary Teams supported under the GTZ-TMC joint project on "Mapping and Matching Innovations", and included academics and researchers, representatives from Technology Licensing Office of NSTDA as well as the industrial technology advisors (ITA) staff of the Industrial Technology Assistance Program (ITAP) from three provinces. During the intense and interactive workshop a stepwise process was adopted for evaluating the commercial value of inventions, using actual Thai case studies in the shrimp, palm oil rubber and fruit and vegetable sectors. Intellectual property valuation methods were introduced through role playing exercises that included: inventors, innovation brokers and innovation adopters. Methods were introduced to simplify techniques of deal-making and revenue-sharing mechanisms.

For the four teams, the next step will be to take their new knowledge back to their inventors and to hammer out deals that result in more ideas finding their way into the market place in a way that is mutually profitable for the inventors as well as the businesses that aim to commercialize them. Watch this space to see which ideas "make it"!

Solar Thermal Association (STA) Opens in Thailand

Solar Thermal Association (STA) was established in January 2008, aiming to raise public awareness and improve the quality of solar systems in Thailand. The STA's 19 current members are benefiting from the strength of being a recognized and united group in communication with the government. The Association has access to the government's subsidy program which was announced in September 2008 and is currently in the first phase of its programme to subsidize 5,000 m^2 of solar thermal system hybrid with waste heat recovery in commercial applications. With the subsidy, the solar systems' payback time could be brought down to 2.85 years. In subsequent phases, the programme plans to subsidize 7,500 m^2 in 2009, 10,000 m^2 in 2010, and 17,500 m^2 in 2011, with total subsidy to 40,000 m^2 with a value of 261 million baht.

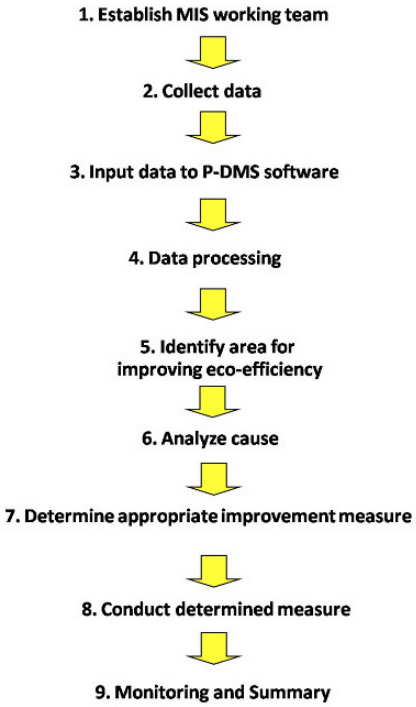
More than 80 representatives from both public and private sector participated in the STA'a launch ceremony held on 21 November 2008 in Chiang Rai. A series of comments and presentations from key stakeholders in the industry followed, including contributions from the Department of Alternative Energy and Efficiency (DEDE), Naresuan University and German Technical Cooperation (GTZ).

GTZ at EcoInnovAsia 2008

From 3rd-5th October, 2008 GTZ participated in the exhibition of the "EcoInnovAsia 2008: An International Conference and Exhibition on Biofuel and Bio-plastics" held by the National Innovation Agency. GTZ experts delivered 2 lectures at the conference, first by Mr. Torsten Fritsche, Director of the Resource-Efficiency and Energy on "Service for Energy Efficency", followed by Dr. Hermann Herz, GTZ headquarters, on "Clean Development Mechanism (CDM): Profits for SMEs and Biomass Business".

The first international conference on bioplastics in Thailand was held in 2006 under the theme of "InnoBioplast 2006". This follow-up conference "EcoInnovAsia 2008" was just as successful, attracting more than 10,000 exhibition visitors and almost 600 conference participants from 35 countries worldwide.

Management Information System (MIS) in Native Tapioca Starch Factories



Within the framework of the Thai-German Programme for Enterprise Competitiveness, the "Management Information Systems (MIS) for Industrial Pollution Prevention and Control Project" has been implemented to provide native starch factories with a suitable and comprehensive MIS, to train and guide management in production process management techniques, and establish the MIS as routine decision-making tool, with the ultimate goal to improve resource efficiency and competitiveness.

The project was jointly implemented by the Thai Department of Industrial Works (DIW) under the Thai Ministry of Industry and German Technical Cooperation (GTZ). Under the project, seven participating native tapioca starch factories have improved their energy efficiency and eco-efficiency, and also enhanced their overall competitiveness. The implementation of MIS brought immediate performance benefits to the factories, particularly in terms of reduced starch losses, less wastewater, and decreased energy consumption.

This success has led to keen interest from other starch factories in implementing MIS. Due to a return on investment of often less than 1 month, six more native tapioca starch factories have joined the energy/ eco-efficiency and competitiveness improvement project at their own cost. Furthermore, GTZ has provided advice to factory managers on the integration of MIS and related management techniques into their overall business management structures.

In light of this, the need for GTZ support can be scaled down to provision of minor logistical assistance, with the MIS project implementation funded through private finance. GTZ has established a MIS Consultant Team as a service provider who will offer these services to the market. This market- and demand-driven approach has been a major contributor to the success and sustainability of this project.

Saa Paper Manufacturers Awarded Environmentally Friendly Enterprises

The Promotion of Saa Paper was initiated in 2006, aiming to strengthen the competitiveness of producers by developing and impro-ving their manufacturing standards. Qualified enterprises must make efficient use of resources, and minimize the use of chemical and energy in the production process, e.g. boiling and bleaching the saa bark and recycling waste water. Moreover, safety measures must be in place to prevent workers from potential harmful effects, such as wearing gloves and masks.

The Department of Environmental Quality Promotion (DEQP), Chiang Mai University, Thai Industrial Standards Institute, Chiang Mai Provincial Office of National Resources and Environmental and GTZ hosted the Environmentally Friendly Enterprise Award Ceremony for 9 qualified saa paper manufacturers at the Robinson Central Airport Plaza, Chiang Mai. Mrs. Orapin Wongchumpit, DEQP Director General, presented the awards.

Apart from this third award ceremony, other project activities to strengthen the competitiveness of Thai saa paper industry in 2008 included the development of a network to collaborate and share knowledge and experience among the project partners. The awards ceremony also included a sale of green and environmentally friendly products, a fashion show featuring garments made from cotton and environmentally friendly saa paper, and an exhibition of environmentally friendly saa paper products.

German Ambassador Visits a Tapioca Starch Factory under GTZ's Project

Dr. Hanns Heinrich Schumacher, Germany's Ambassador, visited Chorchaiwat Industry Co.,Ltd., a native tapioca starch factory of in Chonburi recently. The company has been participating in one of the intervention of the Thai-German Programme for Enterprise Competitiveness (TG-PEC), a collaborative programme between GTZ and its Thai partners which aims to strengthen Thai SMEs in the 5 agricultural sectors: oil-palm, shrimp, fruit and vegetable, saa paper and cassava. TG-PEC was launched in 2003.

The production capacity of the Chorchaiwat factory is approximately 200 metric tons of native tapioca starch per day, from 1,000 metric tons of raw cassava. To enhance the efficiency of its production process, the factory participated in GTZ's benchmarking activity and the Management Information System (MIS) intervention to improve its eco-efficiency, for 2 years (2007-2008).

The MIS intervention aims to analyze the production process and identify opportunities to strengthen the capacity of SMEs by installing the P-DMS software in the factory. The software enables the project team to analyze the whole production process, identify weaknesses and areas that need improvement, conduct cause analysis, and eventually develop and implement appropriate upgrading plans. After joining the project, Chorchaiwat factory was able to increase its production efficiency by 5.2%, producing more tapioca starch while reducing energy consumption, production time and wastage generated in the production process (e.g. the loss of starch in the tapioca pulp by 20.42%).

German Environment Ministry Launches Climate Protection Initiative in Thailand

Global warming, greenhouse gas emissions, the carbon market, ecological footprints, the clean development mechanism, climate change: all this new terminology stands for a global environmental phenomenon with potentially dramatic impacts on the biosphere and on local livelihoods.

From 2009, Germany's Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) within its International Climate Protection Initiative, will support six projects in Thailand to contribute to climate protection in Thailand. The BMU initiative uses the income from the sale of CO2 certificates through the emissions trading system in Germany to fund climate change projects worldwide. Four of the six projects in Thailand have been commissioned to GTZ for implementation, with the private company Solarlite GmbH and the World Tourism Organization (UNWTO) each carrying out one of the other two projects. In 2008, GTZ consulted with stakeholders and potential Thai partners about projects to be submitted to the BMU. All submitted projects received BMU approval to start in 2009 and will last for at least 3 years. The projects implemented by GTZ are grouped into one large "Thai-German Climate Change Programme" and one large project on "Sustainable Palm Oil for Bioenergy".

- How can we meet the social and economic challenges?
- How can we get prepared?
- Are our instruments adequate to minimize impacts?
- What market mechanisms are effective in mitigating emissions?
- What social and economic instruments really work?

The projects will directly benefit from the experience gained by the Programme for Enterprise Competitiveness (under the auspices of BMZ), where eco-efficiency, especially energy and resource-efficiency, and environmental management issues have already been prioritized. The projects aim at supporting, expanding and enhancing existing Thai initiatives which can benefit from German and international experience, expertise and best practice.

Project Title	Main Partner	BMU Support	Remarks
Climate Policy Project	The Office of Natural Resources and Environment Policy and Planning, (ONEP)	1.6 Mio. EUR	These three projects are combined and referred to as the "Thai-German Climate Protection Programme". Programme Director: Mr. Franz-Josef Ellermann
Energy-Efficiency in Medium-sized Enterprises	Department of Industrial Works (DIW)	1.3 Mio. EUR	
Climate Protection in Tourism	Designated Areas for Sustainable Tourism Authority (DASTA)	824,000 EUR	
Sustainable Palm Oil for Bioenergy	The Office of Agriculture Economics (OAE)	3.5 Mio. EUR	With bases in Bangkok and Krabi. Project Director: Mr. Daniel May

Climate Policy Project

The Office of Natural Resources and Environment Policy and Planning (ONEP) and GTZ will implement the Climate Policy Project in order to support the implementation of the Thai Climate Change Strategy (2008-2012), which has been developed by the Thai National Climate Change Committee. Beside the Ministry of Natural Resources and Environment (MNRE), there are 7 other Ministries involved in implementation: Ministries of Finance, Foreign Affairs, Energy, Agriculture and Cooperatives, Industry, Transport and Public Health.

Experts predict that Thailand will be severely impacted by climate change. In particular, current prognoses point to the expected rise in sea levels and its wide-ranging consequences for the Bangkok Metropolis, for intensive agricultural areas, coastal erosion and offshore fisheries. Inland, an increase in frequency and severity of flood incidents and desertification are also predicted.

Thailand's climate-influencing emissions per capita are relatively high. This situation is seen as especially critical against a background of dramatic deficits in CO2 reductions in Thailand. In 2000, Thailand ranked 4th in levels of greenhouse gas emissions per capita among ASEAN countries, and 31st world-wide. Over 50% of the emissions come from the energy sector and around 25% from agriculture.

In order to address both these issues, in 2005, ONEP began compiling the first national strategic plan on climate change. The plan was coordinated with other energy and climate-relevant initiatives and strategies (see graphic) and now forms the basis for the Thai National Strategic Plan on Climate Change (2008-2012). The plan's relation to other national plans and strategies are shown in the following chart.

The National Strategy Plan on Climate Change aims at:

1. Strengthening of adaptability to climate change
2. Reduction of greenhouse gases
3. Support for R&D efforts
4. Awareness raising and participation
5. Building capacity of personnel and institutions
6. Improvement of international cooperation

Currently, the strategy is being implemented in various agencies at national and provincial levels, as well as among social groups. A master plan will provide orientation and implementing agencies will also be offered technical and organizational advice and capacity building.

The project's aim is to strengthen the capacities for the development and implementation of the climate change policy of Thailand.

ONEP plans to establish a coordinating office which will function as the Secretariat of the Thai National Climate Change Committee as a kind of national clearing house. The scope and main focuses of the project have been discussed and agreed with ONEP. Thus, the cooperation between the governments of Thailand and Germany, in addition to the general political and organizational advice for the coordinating office and the master plan cover the following 4 areas:

1. Development of institutional and personnel capacities for the implementation of the climate change policy
2. Policy advice for climate protection, adaptation to climate change and reduction of emissions
3. Improvement of tasks within international cooperation
4. Awareness raising, environmental education and participation.

Project on Energy-Efficiency in Medium-sized Enterprises

Thailand ranks among the most energy-consumptive countries and depends to a great extent on imports. At the same time, energy consumption in comparison to growth in gross national product tends to increase strongly. By any measure, energy consumption is far from being decoupled from economic growth. This project is directly related to the task of “reduction of greenhouse gases” under the “National Strategy Plan on Climate Change 2008-2012”. Although the Energy Conservation Promotion Act (ENCON ACT) has existed since 1992, so far only intense price increases in the energy sector have led to increased energy awareness and a series of policy initiatives.

These initiatives were integrated into the Energy Policy and Development Plan (EPDP) by the end of 2006, and formed the starting point for numerous new measures and commitments by relevant ministries/departments. The contributions of GTZ’s project partner DIW (Department of Industrial Works) are based on this EPDP, particularly regarding energy saving, energy efficiency, alternative energy options, measures for “clean energy” and sustainable energy development. The Thai Ministry of Energy has announced a programme, by which the contribution of renewable energy will increase from its current 8% to 10% by 2011. The expected savings in energy costs are calculated at around 4.5 billion USD. The efforts of the private sector to increasingly use regenerative energy technologies are related to this target as well.

Despite the importance of developing renewable energy options, increasing energy efficiency is undoubtedly the fastest and cheapest way to save money and reduce emissions in Thailand. The project targets managing and technical directors of SMEs, energy consultants and decision makers in education and training institutions in energy issues. To reach these target groups, the project will work closely with the Federation of Industries (FTI). The scope of work is divided into three areas:

1. Analysis and evaluation of existing advisory services and promotional instruments and clarification of potential partners and targets;
2. Establishment and further development of energy efficiency services development of curricula;
3. Introduction of energy efficiency measures in medium-sized enterprises in selected sectors, value chains and industrial groups.

The energy sector will be supported in building up the necessary structures and capabilities to offer consulting services on energy-efficiency to medium sized enterprises by building relationships between Thai and German institutions. In addition, concrete measures to increase energy-efficiency in selected sectors are envisaged. The project draws on experience in improving energy-efficiency in the Thai agro-industry gained by the Thai-German Programme for Enterprise Competitiveness.

Project on Climate Protection in Tourism

Tourism is Thailand's most important source of foreign currency. If tourism is considered as an export good, almost 13% of GNP derives from tourism. In recent years, annual growth rates reached approximately 7% p.a.; the livelihoods of over 4 million inhabitants depend on the tourism sector. In 2007 Thailand welcomed over 14 million foreign tourists, with an estimated 50 million domestic tourists per annum. Thailand's natural beauty is a major attraction- over 14% of the country's land area of Thailand is designated as national park land. Nature-oriented tourism thus plays an important role, particularly in coastal provinces, where tourism is the predominant source of income.

Considered as an important hub for international tourism, Thailand also plays an important regional role as a model for Southeast Asia's tourism sector. Therefore, Thailand's stance with regard to the global challenges of environment, energy and climate change in its tourism sector carry strong regional ramifications.

Nevertheless, Thailand lacks any in-depth and action-guiding national-level data and statements about the potential impacts of tourism on climate change. Defining this could be part of the master plan for the national climate change strategy. Still, the available data clearly confirms the major contribution of tourism as a source of greenhouse gas emissions. At the same time, it plays also a role for natural resource conservation and for the protection of land areas, which serve as tourist attractions as well as carbon sinks.

Environmental policy makers as well as the tourism industry itself are becoming increasingly aware of this situation and have become more pro-active. Some remarkable initiatives have been launched on sustainable management of natural resources, on environmental protection and use of alternative energy. The project will make use of some excellent local success stories, including environmentally friendly hotel management, regulations on energy-efficiency, integrated waste management, decentralized wetlands for wastewater treatment, educational campaigns for visitors and hoteliers about environment protection and biodiversity issues.

The scope and main focus of the activities have been discussed with DASTA (Designated Areas for Sustainable Tourism Authority), which serves as GTZ's main partner in implementing this project. The project will also work closely with the Department of National Parks, Wildlife and Plant Conservation (DNP) and the Department of Marine and Coastal Resources (DMCR), provincial and local administration units as well as the Tourism Authority of Thailand (TAT) and the private sector. Pilot areas are to be identified in Trat Province, covering the designated area for sustainable tourism of the marine national park and island group and "Muu Ko Chang".

The project's main objectives are to improve the framework conditions for the reduction of greenhouse gas emissions and implement measures for nature-oriented tourism to adapt to climate change:

1. To integrate experiences in implementing climate-relevant measures into planning and management instruments.
2. To steer nature-oriented tourism towards climate-friendly tourism by the application of the above mentioned planning and management instruments.

The project's activities include the following:

- Analysis and evaluation of previous experiences with measures in the fields of environment protection, resource efficiency, renewable energy and land use and regional planning.
- Capacity building for the development and implementation of climate-oriented planning and management instruments in tourism development
- Policy advice regarding climate protection in the tourism sector
- Awareness-raising and promotion of investment in climate-oriented measures, and enforcement of regulations.

Project on Sustainable Palm Oil for Bioenergy

In recent years, the demand for palm oil has risen continuously due to several inter-connected reasons. Whilst the surge in fossil energy prices certainly played an important role, climate protection and energy security issues, which led to increasing energy production from vegetable oils, are also partly responsible for the rapid rise in demand. Political promotion measures in various countries backed up this development, in Germany for instance via the NaWaRo-Bonus of the Renewable Energy Sources Act (EEG) and the blending quotas for fuels.

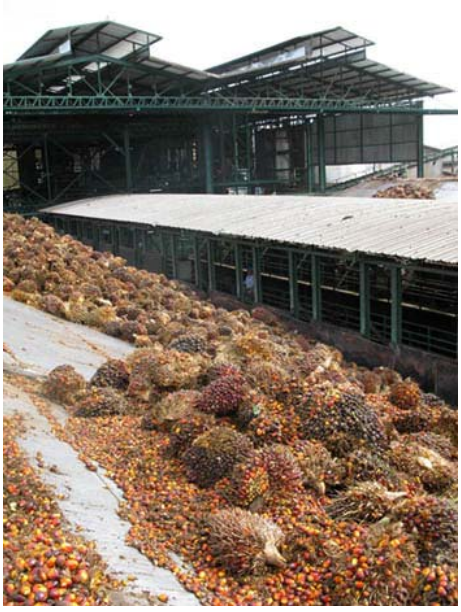
Worldwide, the fast expansion of palm oil cultivation has come increasingly under fire as it has been blamed for negative effects on biodiversity due to its monoculture-based plantation systems and to be responsible for the destruction of rainforests. In addition, the effect of bio-energy on the price volatility of commodities has been critically discussed in the context of the food price crisis in April 2008 and there have been reports about bad working conditions on plantations and in palm oil mills. To avoid these negative consequences and to promote the positive effects, sustainability standards and certification schemes for bio-energy are currently being discussed and promoted worldwide and energy suppliers are attempting to purchase only sustainably-produced and certified vegetable oils on the global market particularly for biofuels, electricity and heat generation. The most advanced certification scheme is the Roundtable on Sustainable Palm Oil (RSPO), a multi-stakeholder initiative whose members already produce palm oil in compliance with stringent sustainability criteria.

Against this backdrop, the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) commissioned the project on Sustainable Palm Oil for Bioenergy to be implemented for three years by GTZ in close cooperation with the Office of Agricultural Economics (OAE) in Thailand.

The aim is to promote the production of certified sustainable palm oil to serve the increasing demand from Europe, the establishment of a certification scheme for sustainable produced palm oil in Thailand, and to show that the production of palm oil as a source for bioenergy is feasible under sustainability criteria, preventing negative effects on the environment and society. The project will also address the issue of integrating smallholders who often are at risk of exclusion from standardization schemes due to the difficulties and high transaction costs regarding their certification.

Hence, the project comprises two components to achieve its ambitious goals. The first is the establishment of organizational and quality management systems to enable the certification of smallholder palm oil production in Thailand. Smallholders will be supported in building up the necessary organizational structures to deal with certification and will be trained on the required changes in production and farm management practice. The second component will support the institutionalization of the RSPO standard in Thailand and its adaptation to European requirements for the standard for biomass utilization. Moreover, the RSPO will be enabled to initiate a multi-stakeholder dialogue in which the international standard will be adapted to local conditions in Thailand.

The project will be aligned with the roadmap of the Thai National Palm Oil Board for the development of oil palm production in Thailand. Krabi province has been selected as a pilot area for the project, which will work closely with the provincial government, as well as other local stakeholders including cooperatives and individual private enterprises. Such close cooperation will be critical to the project's success.



Visit to Krabi - Pilot Area for Sustainable Palm Oil Production for Bio-Energy

Guarantees of sustainability are becoming increasingly required within the biofuels industry, and the Round Table for Sustainable Oil Palm Oil (RSPO) has introduced its scheme to ensure biofuels are produced sustainably using best practice.

From 25th to 26th November 2008 David Oberhuber, GTZ Country Director for Thailand, and Daniel May, Director for an upcoming GTZ project "Sustainable Palm Oil Production for BioEnergy" visited Krabi Province to meet potential project partners. They were accompanied by a group composed of project staff from GTZ, the Office for Agricultural Economics (OAE) and the Thailand Environment Institute (TEI).

As Krabi has been selected as a pilot area for the project, cooperation with local authorities as well as other important stakeholders is planned. A project office is to be set up in Krabi within the offices of one of the partner institutions. The visit was therefore a great opportunity for GTZ to present the project to local stakeholders and to gain a better understanding of the region and possible partners in the project. The group visited two palm oil and biodiesel cooperatives which are potential partners to work on the certification of smallholders under the RSPO scheme. A second meeting took place with a private oil mill which is also interested in certifying its production. The visit ended with a meeting with the Krabi provincial government, which emphasized its strong interest and support for the project.

Preparatory Meeting for Sustainable Production of Palm Oil for Bioenergy

An important step forward for the Project of Sustainable Palm Oil for Bioenergy was taken at the preparatory meeting on 21st of November 2008. The three year project is implemented by GTZ in close cooperation with the Office of Agricultural Economics (OAE). It is commissioned by the German Federal Ministry of Environment, Nature Conservation and Nuclear Safety (BMU) as part of BMUs International Climate Protection Initiative. In the meeting representatives of some of the main stakeholders, namely the OAE, Krabi Provincial Agricultural and Cooperatives Office, Kasetsart University, Thailand Environment Institute and GTZ, came together to exchange their ideas on the project and jointly define how to proceed to ensure successful implementation.

The presentations and discussions held during this fruitful meeting served to build a common understanding among the stakeholders involved and to clarify the project's overall direction. Additionally, possible synergies with the Thai-German Programme for Enterprise Competitiveness have been identified. Before the project's official kick-off in early 2009, the next steps are to set up a core management team for the project, to conduct a comprehensive baseline study of the palm oil sector in Thailand as well as other related studies, and to hire qualified project staff. All that will ensure the availability of necessary structures for the project and will serve as a basis to develop an effective action plan by the beginning of 2009.

The meeting showed that the project holds ambitious goals and will certainly be a great challenge. But it was also evident that all parties involved are highly motivated, share common goals and can be expected to contribute with their broad knowledge and existing structures to make the project for sustainable palm oil a lasting success.

Eco-Tourism and Greenhouse Gas Mitigation

GTZ and the Designated Area for Sustainable Tourism Administration (Dasta) jointly organized a colloquium "Destination Development and Eco-Management: How to Respond to Climate Change" on November 18, 2008. Mr. Otto Eike, an expert from GTZ Germany presented the climate change data with increasing impact on the ecosystem. Climate change endangers the infrastructure and the sustainability of the tourism industry, both directly and indirectly. Similarly, tourism industry contributes to climate change.

Results from the assessment study by the Institute of Applied Ecology in Freiburg (Germany) showed that tourism industry generate approximately 5% of the total global greenhouse gas emission. The current awareness on the harm and impact of tourism on climate change has prompted tourism operators to adjust, responding to tourists' needs and preventing or mitigating the potential climate change risks and the impact on the ecosystems.

Many European countries have turned to realistic and comprehensive campaign and promotion of the ecotourism industry, offering environmental friendly tour packages that mitigate green house gas emission and energy consumption. Examples are the tourism promotions by the Alpine Pearl, Black Forest (Germany), Spessart (Germany), Viabono (Germany), Arosa (Switzerland) and Werfenweg (Austria) that focus on participatory initiatives, inviting tourists to reduce petroleum consumption, choosing public transport over private vehicles, conserving the forests, rehabilitating the ecosystems, etc. These tour packages are gaining popularity in the European market.

In the end, Mr. Otto summarized that the management of sustainable tourism requires sustainable architecture, maximizing the use of local materials and goods, focusing on efficient utilization and management of energy, using renewable energy, protecting nature and ecosystems and promoting participatory initiatives to mitigate greenhouse gas emission. Social marketing by delivering appropriate messages to consumers is very crucial. Participants of the colloquium are representatives of relevant public and private sectors and many international NGOs. They actively discussed their experiences on destination management both in Thailand and in the Mekong Region.

Mr. Otto's presentation can be downloaded from www.thai-german-cooperation.info

GTZ and DASTA Seek for Climate Protection through Eco-Tourism

Recently staff members from GTZ and DASTA (Designated Areas for Sustainable Tourism Administration) conducted an appraisal mission on the island group of Mu Ko Chang and the coastal mainland of Trat province. This area is one of the designated areas which DASTA has been assigned to support with integrated development approaches towards sustainable tourism. The mission covered the coastal areas as well as Ko Chang and Ko Maak and aimed at assessing the overall feasibility and to define the direction of the joint project on "Climate Protection in Tourism". Information was collected for example on the conditions natural resources, the communities and their livelihood, the different eco-systems and existing types of tourism.

One example of community based tourism and mangrove protection is the Prednai community located at the coastal area of Trat province which started its' project one decade ago. Community members proudly presented their experiences on how they successfully involved all relevant stakeholders to protect the mangrove area. Today the mangrove forest constitutes a sustainable basis for food and income generation for the Prednai community. In the designated area, a mutual, high interest to jointly protect the environment and natural resources could be observed from further informal meetings and discussions with representatives of the local administrations and communities as well as with hotel and restaurant owners on the several islands. However, orientation and guidance is lacking on how to convene the various interests and ideas and translate them into concrete action to achieve a strong and effective development of the whole region. So far, the main goals, for example an overall environment-friendly image of the region which could add value to its tourism sector, are not yet achieved. The different stakeholders expressed strong concerns about the possible impacts of climate change and the rapid increase of tourism on the communities and the business environment. The rising number of tourists on some of the islands already has lead to infrastructural problems, such as solid waste and wastewater. If not managed properly this could result in a severe crisis in the region and it is high time for all stakeholders to get together and work on sustainable solutions. The team collected first hand data and necessary information for the upcoming planning sessions of the three years' joint project on Climate Protection in Tourism (2009-2011). For further information about the project please see page 13.

Upcoming Event

The World Renewable Energy Congress 2009 – Asia (WREC 2009 – Asia)

The event is organised by the Joint Graduate School of Energy and Environment (JGSEE) of King Mongkut's University of Technology Thonburi and CMP Media (Thailand) Co., Ltd. will be held during 19-22 May 2009 at the Bangkok International Trade and Exhibition Center (BITEC). The objective is to provide an international forum for participants from academic, industry, government agencies and NGOs to report on research and development results, to interact and share information and knowledge, and to identify opportunities for cooperation in the fields of sustainable energy and environmental technology and policy. For more information, please visit www.wrec2009asia.com

Thai issues at the GTZ-Forum "Tourism and Development" in Munich.

The Forum "Tourism and Development" (Forum T+D: Dialogue on the practice of sustainable tourism and international cooperation") is organised by GTZ as part of the "Reisepavillon - the market-place for sustainable travel" at the tourism fair in Munich 26 Feb until 2 March 2009. Three from the 10 sessions will be covering subjects and experiences, which are related to Thailand. The titles are:

- Mecklenburg-Vorpommern and the Gulf of Thailand - partnership for climate friendly tourism.
- Climate check for masterplans - effective?
- Post-post-Tsunami: lessons learned from the tourism development in Thailand.

For further information: burghard.rauschelbach@gtz.de and www.gtz.de/tourism.

Authors: Staff members of the Programme

Editors: Siriporn Treepornpairat
Vorathep Songpanya

Pictures are taken by members of the programme.

For further information on the articles
and all news related information please contact
Siriporn Treepornpairat
Public Information Manager
Gesellschaft für Technische Zusammenarbeit
German Technical Cooperation, GTZ Office Bangkok
193/63 Lake Rajada Office Complex (16th Floor)
New Ratchadapisek Road, Klongtoey, Bangkok 10110
Tel: 02-661-9273 Fax: 02-661-9281 –2
E-mail: siriporn.treepornpairat@gtz.de
Website : www.thai-german-cooperation.info

GTZ is part of the
German Development Cooperation

- Thai-German Programme for Enterprise Competitiveness
- Sustainable Urban Transport Project in Asia
- Commercialisation of Biopesticides in Southeast Asia

- Thai-German Climate Protection Programme
- Sustainable Palm Oil for Bioenergy