



Dow Thailand Public Report

2009-2012



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About This Report

Dow in Thailand has embraced Dow's 2015 Sustainability Goals, which are a voluntary 10-year commitment to use resources more efficiently. We are determined to apply science and technology in product development in a move to help enhance the quality of life of current and future generations.

Therefore, Dow Thailand develops "Public Report" with an aim to present Dow's sustainable performance in Thailand, covering the economic, social and environmental aspects during 2009 to 2012. This is to communicate the major accomplishments of the group's sustainability efforts to our stakeholders and the public.

The report on Dow's sustainable practices in economic, social and environmental sectors not only proves our commitment to our stakeholders, but it also encourages our employees to relentlessly pursue sustainable development. It is another example of how seriously the company takes its commitment to Thai society and the environment, for a better tomorrow.



Khun Jirasak Singmaneechai

Managing Director

Companies of Dow Thailand

Dow Heads toward Sustainable Growth

During 2009-2012, Dow Thailand has substantially expanded production capacity and investment, making it Dow's largest manufacturing base in Asia.

Companies of Dow Thailand, which comprise of Dow Chemical Thailand and its subsidiaries, and companies of a joint venture under SCG-DOW Group, have operated with global standard. The company's mission is to passionately innovate what is essential to human progress by providing sustainable solutions to our customers. In addition, we have aligned our production and business operations with the breakthroughs that can solve the critical global challenges such as energy, climate change, local protection of human health and the environment as well as contributing to the community's success that would pave the way to sustainable growth of the company's businesses.

“Dow Thailand’s business expansion has played an active role in bolstering the local economy and improving technologies of Thai industries.”

Over the past four years, Dow Thailand’s business expansion has played an active role in bolstering the local economy and improving technologies of Thai industries. We have also engaged in corporate social responsibility and contributing to community’s success. Some of our highlights include:

- Successful construction of Dow Thailand’s Growth Project worth over 3 billion US dollar, or almost 100 billion baht. The program boosted local economy through higher employment, community economic support, technology transfer, and an upgrade of environment and safety standards of domestic industries.
- Excellent achievement in responsible operation, with higher operating standard than legal requirement both in human health and environment protection, which consistently won the awards on safety at work place from the Ministry of Labor for several years in the row. Moreover, the company has treated production waste by using a closed-system and applied new technologies, which have consequently reduced the amount of waste.
- Accomplishment in contributing to the community’s success through various development projects conducted by the company to respond to the community’s need to improve the quality of living sustainably. The projects engage in education fields, both in terms of academic and health ranging from primary to university levels. On safety and environmental fronts, the company has enlarged the green area and joined hands with local communities in forest plantation for a combine area of almost 200 square kilometers. It has also promoted the well-being of people in local communities and provided an opportunity for the communities to participate in the identification and implementation of the projects.

The aforementioned success has laid the foundation for Dow Thailand to sustainably grow our business and be widely recognized by the Thai society and local communities consistent with the parent company’s vision to become the most profitable and respected science-driven chemical company in the world.



About Dow Thailand

Manufacturing Hub of Dow in Asia Pacific

Dow first came to Thailand in 1967 and set up Dow Chemical Thailand Ltd. for importing and distributing chemical products through an office in downtown Bangkok. In 1978, Dow established its first manufacturing facility in Thailand in Phra Pradaeng district of Samutprakarn province to produce polystyrene after identifying the growth potential of the local market and those across Southeast Asian region.

In 1987, Dow signed its first joint venture agreement with SCG, one of Thailand's most recognized industrial conglomerates, to set up SCG-DOW Group. The Group moved into Map Ta Phut by starting up a styrene-butadiene latex plant and a polyurethane plant in 1993. From that beginning point, the company embarked on series of investments and constructed more integrated, world-scale manufacturing facilities such as polystyrene, ethylbenzene and styrene monomer, and solution polyethylene plants.

From 2006 through 2008, Dow Thailand announced the Thai Growth Project, a multibillion-dollar new production complex: a joint venture between Dow, SCG and international chemical and pharmaceutical group Solvay S.A. The mega-investment Thai Growth Project involved the building of world-class production facilities including an advanced naphtha cracker plant

operated by Map Ta Phut Olefins Co., Ltd. (joint venture between Dow and SCG), and downstream facilities to produce polyethylene (SCG-DOW Group), specialty elastomers (SCG-DOW group) propylene oxide (SCG-DOW Group) and hydrogen peroxide (joint venture between Dow and Solvay) including a Power, Utilities & Infrastructure plant.

In 2011, the new production complex became operational to support the growth of customers in Thailand and Asia Pacific with the most advanced technologies under stringent environmental, health, and safety standards. The completion of all plants under the Thai Growth Project made Thailand Dow's largest manufacturing base in Asia Pacific.

Apart from operating the largest manufacturing base in Asia Pacific, Dow is a leading importer of chemicals for diverse industries in Thailand, including those for agriculture and household pesticides. Dow's acquisition of Union Carbide Corporation in 2001 and Rohm and Hass in 2009 have made Dow Chemical the leading company for specialty chemicals and advanced materials with expanded expertise and innovation, together with cutting-edge and green technology.



Vision : To be the most profitable and respected science-driven chemical company in the world.

Mission : To passionately innovate what is essential to human progress by providing sustainable solutions to our customers.

Dow Values :

- **Integrity**

We believe our promise is our most vital product—our word is our bond. The relationships that are critical to our success depend entirely on maintaining the highest ethical standards around the world.

- **Respect for People**

We believe in the inherent worth of all people. The employees of Dow are the engine of value creation; our imagination, determination and dedication are essential to growth.

- **Protecting Our Planet**

We believe in protecting the world's resources. Dow's sustainability journey involves the world's best problem solvers working on the world's biggest challenges. The decisions we make, the innovations we deliver and the goals we achieve are all driven by our intent to "Set the Standard for Sustainability," making the world safer, cleaner and greener for generations to come.

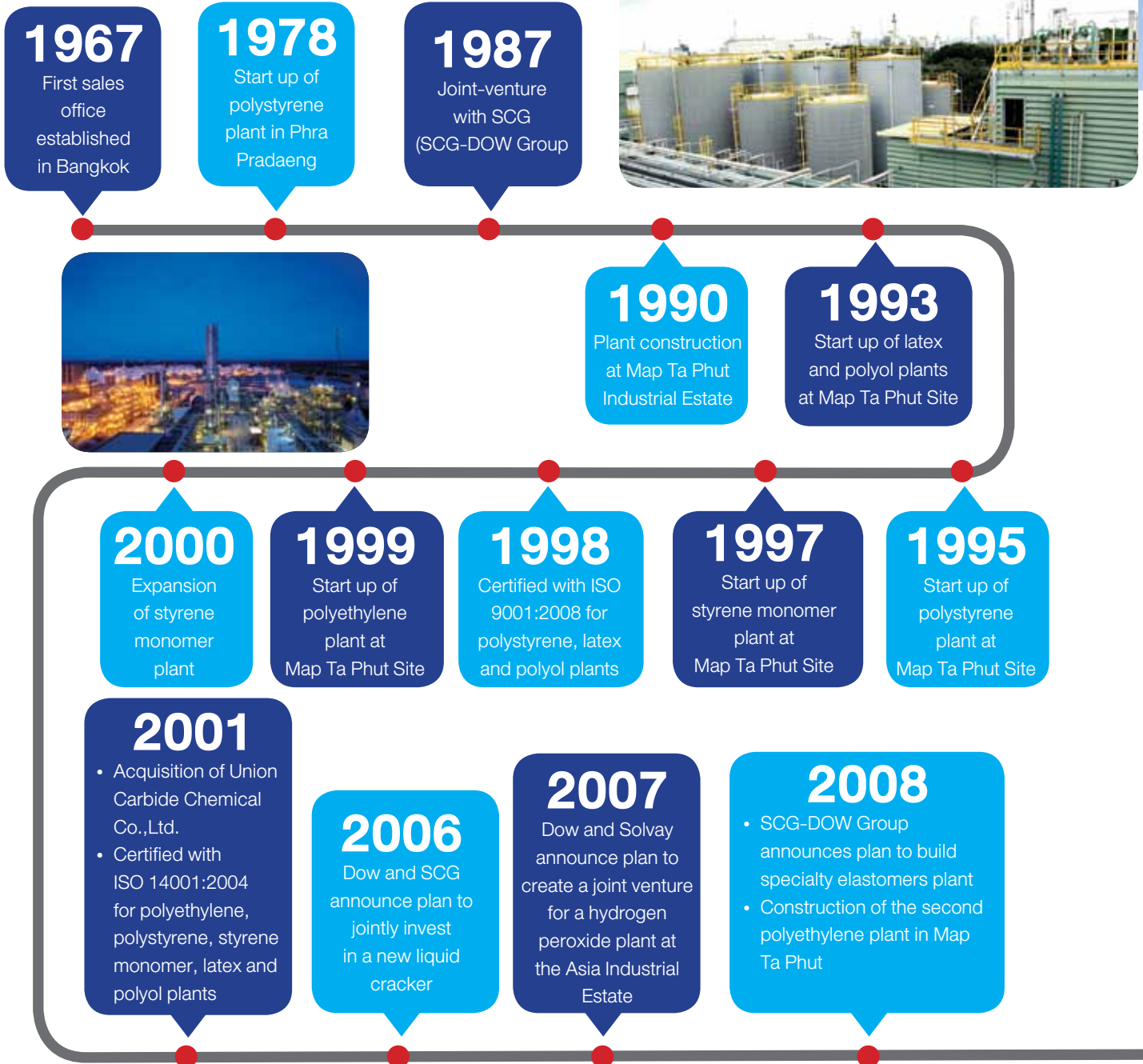


Code of Business Conduct

In December 2010, Dow's Board of Directors adopted a new Code of Business Conduct, called The Diamond Standard. This new Code puts a framework around the Values that is multifaceted and clear, setting expectations and guiding behavior. The Code applies to all Dow employees and our subsidiaries, as well as joint ventures that adopt the Code.

The Diamond Standard, Dow's Code of Business Conduct, can be found on our website or http://www.dow.com/company/aboutdow/code_conduct/ethics_conduct.htm

Milestones in Thailand





2010

- Start up of the second polyethylene plant in Map Ta Phut
- Dow announces plan to build propylene glycol plant
- ISO 14001: 2004 Certificate Renewal for polyethylene, polystyrene, styrene monomers, latex, and polyol plants

2011

- Start up of specialty elastomers plant, hydrogen peroxide plant, and propylene oxide plant
- Dow announces plan to build polyolefin encapsulant films plant

2009

- Acquisition of Rohm and Haas
- Construction of specialty elastomers plant, hydrogen peroxide plant, propylene oxide plant and power, utilities & infrastructure at Asia Industrial Estate



2012

- Inauguration of the new operation complex at Asia Industrial Estate
- Start up of polyolefin encapsulant films plant and propylene glycol plant
- ISO 9001: 2008 Certificate Renewal for polyethylene, polystyrene, management of manufacturing for IRPS, polyol, formulated polyol and latex plants, and extended scope for propylene oxide and specialty elastomers plants

The Companies of Dow Thailand

Dow Chemical Thailand Ltd.

Producer of polyols/ formulated polyols, polyolefin encapsulant film, propylene glycol, and importer of Dow's products that serve diverse industries

Carbide Chemical (Thailand) Ltd.

Producer of synthetic latex

Rohm and Haas Chemical (Thailand) Ltd.

Producer of acrylic emulsions and poly-acrylic acid solutions

Dow AgroSciences (Thailand) Ltd.

Importer of agricultural chemicals and urban pest management products

Market Served

Products of the companies of Dow Thailand serve diverse industries. Information about markets served, which are listed below, can be found on www.dow.com under "Products and Services". Dow typically provides its product and service offerings to target markets on a global basis.

- AgroSciences
- Construction
- Electronics & Communications
- Energy Storage
- Healthcare & Medical
- Home & Office
- Infrastructure
- Nutrition
- Oil & Gas
- Packaging
- Personal Care & Apparel
- Renewable Energy
- Transportation
- Water



SCG-DOW Group

Joint venture companies between SCG Group and The Dow Chemical Company

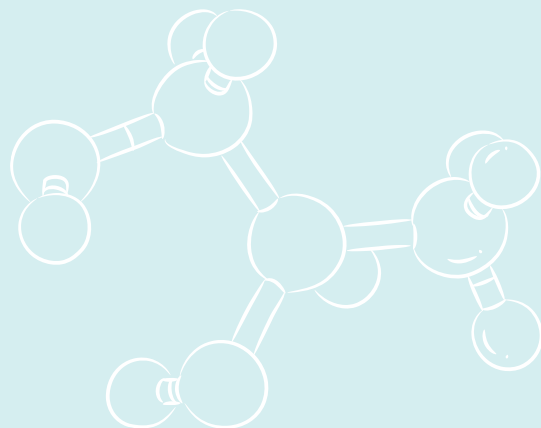
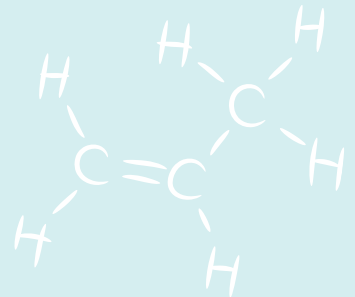
- **Siam Polystyrene Co., Ltd.**
Producer of polystyrene
- **Siam Polyethylene Co., Ltd.**
Producer of linear low-density polyethylene
- **Siam Synthetic Latex Co., Ltd.**
Producer of styrene-butadiene latex and specialty elastomers
- **Siam Styrene Monomer Co., Ltd.**
Producer of styrene monomer
- **MTP HPPO Manufacturing Co., Ltd.**
Producer of propylene oxide

Joint Ventures operated by SCG

- **Rayong Olefins Co., Ltd.**
Producer of ethylene, propylene, mixed C4, benzene and toluene
- **Map Ta Phut Olefins Co., Ltd.**
Producer of ethylene, propylene, benzene, toluene and mixed xylene
- **Rayong Terminal Co., Ltd.**
Storage and port facilities service provider

Joint Venture operated by Solvay S.A.

- **Map Ta Phut HP JV**
Producer of hydrogen peroxide and hydrogen



Sustainability Overview

Living in the today's world of limited resources, Dow Chemical recognizes everything we do and how we act is matter. We thereby mind every single step we advance and dedicate our expertise and resources, including our best scientists and engineers, to tackle some of the world's most pressing problems through innovation. Our ultimate aim is to contribute sound science for the sustainable world.



Dow adopts the principle of sustainable development to every step our undertaking following our promise to sustainability. We are committed to using resources more efficiently, providing value to our customers and stakeholders, delivering solutions for human needs and enhancing the quality of life of current and future generations.

In 1995, Dow set important goals to improve environment, health and safety performance, and were recognized for our achievements of the initiative. We proceeded further with even greater ambition by introducing the 2015 Sustainability Goals in 2006. The more ambitious and next-generation set of goals focus firmly on strengthening relationships within the communities where we operate, continuing improvements of product stewardship and innovation to solve some of the world's most pressing problems without depleting the world's resources, and reducing our footprint on the globe.

Dow's Sustainability Pillars

As a world leader in applied chemistry, Dow is uniquely positioned to drive change by delivering sustainable and innovative solutions that contribute to human progress and the growth of our business. Dow organizes its sustainability focus around four key pillars.

Smart Solutions for Today	Innovations for Tomorrow	Responsible Operations	Partners for Change
Our technologies enable our customers, and their customers, to develop products and services for a more sustainable future.	We contribute to the sustainability of society and our planet by developing innovative technologies for current and future markets.	Our infrastructure has a positive impact on our company, our communities and ourselves; our operations are a model for others, wherever we operate.	We are leaders in advancing all aspects of sustainability, openly collaborating with customers, suppliers, communities, civil society and governments.

Dow's 2015 Sustainability Goals

Dow's 2015 Sustainability Goals cover seven areas of operations:

Sustainable Chemistry

By 2015, Dow will increase the percentage of sales to 10 percent for products that are highly advantaged by sustainable chemistry.

Dow will publicly report on our progress by:

- Reporting our overall annual assessment of our sustainable chemistry index, and performance against our % of sales having sustainable chemistry advantages.
- Presenting and/or publishing life cycle assessments that are validated independently by an external stakeholder, on existing or planned Dow products.



- Providing ongoing updates on promising areas of research and investments and collaborations that spur sustainable chemistry innovation.
- Promoting sustainable chemistry internationally through student prizes and Dow employee awards under The Dow Sustainability Innovation Challenge Award program.

Breakthroughs to World Challenges

We are actively working toward, and committed to achieving, at least three breakthroughs by 2015 that will significantly help solve world challenges.

- Energy and Climate Change
- Water
- Food
- Housing
- Health



Addressing Climate Change

We will maintain all greenhouse gas emissions below 2006 levels.

- We will use 400 MW of clean energy by 2025.
- We will find ways to grow our company, but not grow our GHG emissions.
- Dow's insulation products in service reduce GHGs by multiples more than six times our own emissions on an annual basis.
- We will report the contributions of our products and solutions to increase energy efficiency and emissions reduction through the development of our Net Impact Tool, which will quantify the energy and GHG profile of products across the life cycle.



Energy Efficiency & Conservation

We will reduce our energy intensity 25% by 2015 - from a 2005 baseline.

- Our manufacturing energy intensity, measured in BTUs per pound of product, has improved more than 40% since 1990, saving the company more than \$24 billion and 5,200 trillion BTUs.
- We are one of the largest producers of innovative products that reduce energy use: building insulation applications, solutions for fuel-efficient vehicles, technology to enable wind power, and integrated solar systems into building materials.



Product Safety Leadership

We will publish product safety assessments for all products by 2015.

- The assessments cover topics such as basic hazards, use, risk and risk management.
- We further commit to the equivalent of REACH-like testing on all our products or product families whether they are sold directly in the European Union or not.
- We will make product safety assessments accessible to the public at www.dowproductsafety.com.
- We will complete evaluations, with third party process verification, on high priority products by 2010 and for all products by 2015.



Contributing to Community Success

By 2015, 100% of Dow sites where we have a major presence will have achieved their individual community acceptance ratings. We are collaborating with local businesses and citizens to help create stronger, safer and sustainable communities through:

- Engagement
- Establishing joint goals and plans
- Taking actions for the long-term success of all involved

Local Protection of Human Health & the Environment

By 2015, Dow will achieve on average a 75% improvement of key indicators for EH&S operating excellence from 2005 baseline.

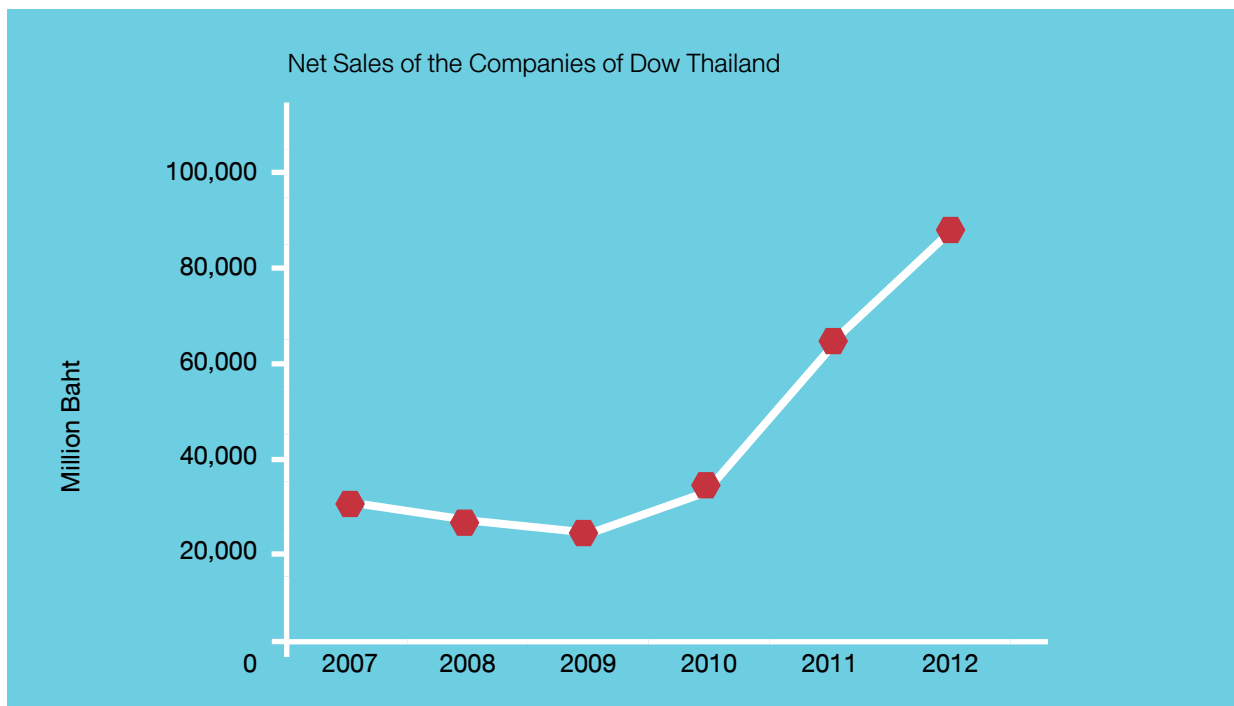
- We lead the way across virtually every facet of environment, security, health and safety performance.
- Dow is one of the first companies to introduce innovative protection equipment for our workers in 1897 – and today we engage our neighbors through Community Advisory Panels.
- Our Vision of Zero is a leadership attitude and a corporate culture that is committed to zero accidents, zero injuries and zero excuses.



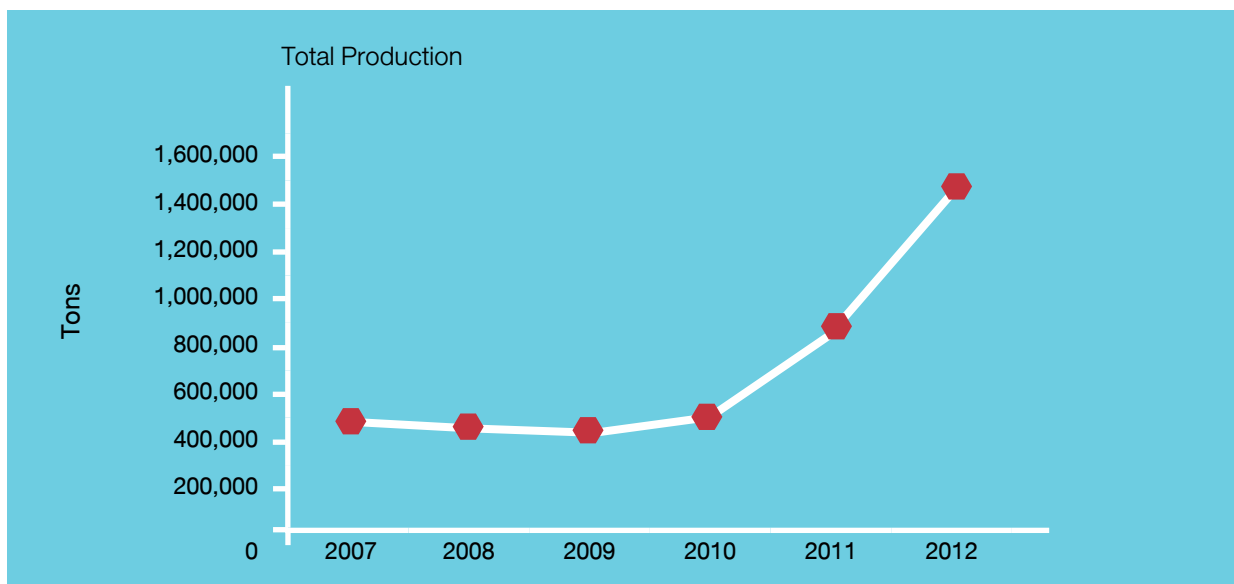
For 2015 Sustainability Goal progress update, please visit www.dow.com/sustainability/pbreports.

Contribution to Thai Economy

Since the first entry to Thailand in 1967 with a small sales office in Bangkok, Dow Thailand has thrived to become Dow's largest operations in Asia Pacific. Over the years, as each investment came on stream, both production and sales increased.



After the completion of Thai Growth projects, both sales and production grew strongly.



Dow's investment in Thailand during 2009-2012

Dow Thailand has earmarked an extensive value of investments over the past few years, reinforcing our contribution to the strength of the Thai economy. During the period of 2009-2012, we have spent multi-billion dollars to realize our planned projects, including the constructions of several new manufacturing plants for our new production complex under the Thai Growth Project in Map Ta Phut Industrial Estate and Asia Industrial Estate in Rayong Province. In 2012, Dow constructed and started-up new environmentally friendly propylene glycol plant and polyolefin encapsulant films plant. These facilities have expanded Dow's business portfolios, especially its specialty products to address the world's evolving needs, enhance support to Dow's customers in the Asia Pacific region, and support Thailand's economic development.

2010

- New solution polyethylene Train II produces polyethylene and is highly integrated with the first train to provide more efficiency for the operation, broader product coverage and faster response to customer needs.

2011

- Specialty elastomers plant supplies customers in the fast-growing Asia Pacific region with high-end plastomers and elastomers for a wide variety of applications, including AFFINITY™ polyolefin plastomers and ENGAGE™ polyolefin elastomers.
- Propylene oxide plant provides world-scale production capacity that uses award-winning hydrogen peroxide to propyleneoxide (HPPO) technology which was jointly developed by Dow and BASF. The new technology is able to extract propylene from hydrogen peroxide and leave a small footprint to the environment. Propylene oxide is used to produce propylene glycol, polyurethanes and glycol ethers.
- Hydrogen peroxide plant produces hydrogen peroxide at 100% concentration from air and hydrogen, using technology provided by Solvay S.A. under the license agreement to the Dow-Solvay joint venture. It serves as a raw material source for the manufacture of propylene oxide (PO).

2012

- Polyolefin encapsulant Films plant produces materials used in solar panels to improve the reliability and performance of finished photovoltaic modules. This investment is aligned with Dow's transformation strategy to use our innovation addressing market opportunities and creating value for our customers.
- Propylene glycol plant uses a safe, efficient and more environmentally friendly process and has the capability to provide the same high quality glycol products that are produced in other Dow propylene glycol manufacturing facilities around the globe. The propylene facility utilize propylene oxide (PO) derived from the sustainable hydrogen peroxide to propylene oxide (HPPO) technology. propylene glycol is used in a variety of product applications including pharmaceuticals, food, personal care and more.

Contributions to Thailand's Prosperity

Dow's operations in Thailand have been playing a functional role in enhancing the growth of the Thai economy and society. The developments of several projects by Dow Thailand during the last few years have contributed to economic expansion and sustainability of the country as they have boosted the investment sentiment and stimulated economic condition, adding value to petrochemical industry in Thailand, encouraged technology development and knowledge transfer, increased job employment and personnel skill development and promoted the growth of locality where we base via providing business opportunity, tax payment and fund contribution.

Technology Transfer

The investments we made over the past few years have not only added to the local economy but also expedited technology development and knowledge sharing within the industry.

For all of our new operation facilities, the experienced engineers, who successfully started up Dow facilities around the world, have worked closely with Thai engineers to transfer knowledge and know-how to ensure save and reliable operations.

We also equip the most advance and environmental friendly technology at our specialty elastomers plant at the Asia Industrial Estate to produce polyolefin plastomers. The technology features advantages including the close system operation that accumulates vapor for elimination at the flare, no involvement of carcinogens and volatile organic compounds (VOC's) in the production process, no sulfur oxide emission and equips with technology that reduces nitrogen oxide from production process.

Dow always embraces state-of-the art technologies that provide world class operations. Our adoption of such advanced technologies allows us to minimize impact to the environment all the way through the entire processing chain and efficiently utilize raw material and resources. The advanced and highly complicated technologies require experienced and skillful persons to operate them. It is our pride that employees and managers in charge of operating the plants are all Thai.

Dow always embraces state-of-the art technologies that are best at their time to our operations in Thailand

Adding Values to Thai Industry

Realizing that Thailand has advantages in raw materials for petrochemical businesses, Dow has invested in intermediate and downstream petrochemical manufacturing plants in Thailand.

Our investments in the intermediate and downstream businesses have added proven values to the country's petrochemical industry, for example, the new propylene oxide plant is a feedstock for a variety of industrial products including polyurethanes, propylene glycols and glycol ethers that are used in end-use applications such as construction, automotive, furniture, bedding, appliance, decorative molding, athletic equipment, personal care products and more.

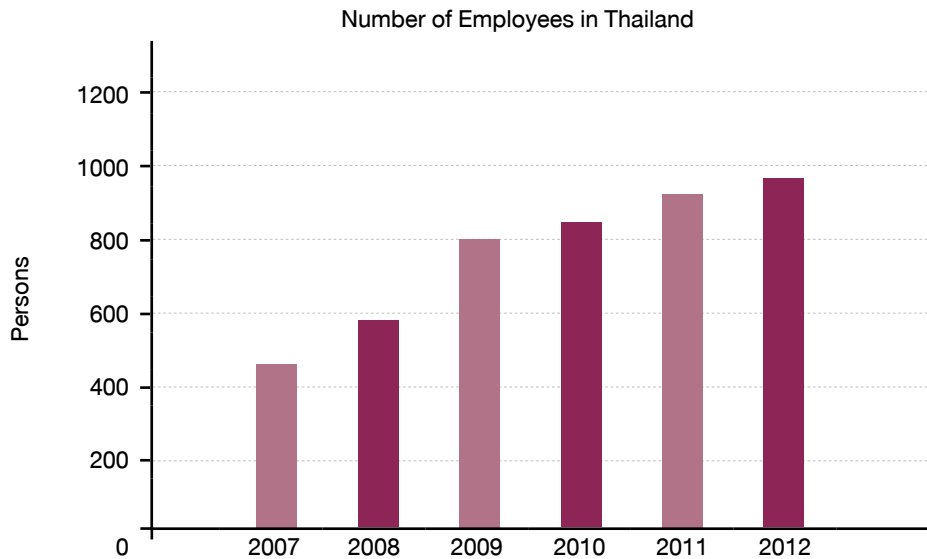
In addition, Dow keeps introducing new innovations to the market and that greatly benefit customers and industrial manufacturers in Thailand such as the home painting manufacturers, food processors, electrical and electronics appliances producers and food and drug operators, as they can take the advantage of our innovative products and breakthroughs to add value to their businesses.

Job Creation and Professional Skill Development

Dow Thailand made significant investments in the skill development of all employees. Trainings have always been provided both for contractors and permanent employees.

- **Job Creation**

Number of employees at the companies of Dow Thailand rose significantly from 764 in 2009 to almost 1,000 employees in 2012. During the Thai Growth Project Construction period, we also employed around 10,000 contractors on site to support our projects.



Extensive Professional Skill Development

We invest in enhancing the potential of our employees through various approaches including training in countries such as Canada, Germany, Belgium and the United States where they gain first-hand exposure to cutting-edged technology and have the opportunity to take on regional roles.

As for the employees, they will receive training based on Dow's best practices and work with Dow experienced staffs to integrate into the company operations. This facilitates the learning process through in-house experienced professionals. We provide tools, resources and training programs to help employees develop professionally, including global program for future leaders, role-specific programs, and special courses. We also provide skill development for construction contractors.

Skill Development for Construction Contractors

- **Skill Assessment Program**

In 2009, we initiated the 'Skill Assessment Program' aimed at enhancing our skilled workforce and ensuring safety in all operations. Since the implementation of this program, the company has experienced improved safety statistics. The 'Skill Assessment Program' not only contributes to the company's safety performance, but it also contributes to industry safety and professional standards.

- **Training Center**

We also have training programs focused on contractors. For the Thai Growth Project, for instance, we built a training center to teach the safety standards and expectations at Dow as well as develop skills required through different construction phases to allow them to work safely and mitigate risks. These skills would benefit them in their current contract with Dow as well as their future assignments.

Promoting Growth in Locality

The successes of Dow's ventures in Thailand have encouraged the growth of business derivatives, especially in Rayong province where we base our production facilities. Our operations provided business opportunities to suppliers and contractors as well as local residents in communities nearby.

- **Boosting Car Rental Business:**

During 2010-2012 Dow Thailand's operation site in Rayong hired rental cars that are operated by locals, registered in Rayong and have Rayong registration plates.

- **Boosting Logistic Activities**

The expansion of our manufacturing complex encouraged more logistic activities and consequently enlarged our hiring of contractors for on-site and off-site logistic by 50% from 2009-2012.

- **Supporting Community Economy**

We are part of the communities we reside and always contribute and provide support to our neighborhoods. Since the start of our operation in Thailand in 1967 and followed by our business expansions for our 45 years of presence here, we have engaged in countless business and social activities that involved the consumption of goods and services. Dow has decided to choose products and services developed by our neighboring communities following our aims to support the economy of those localities. During 2010-2012 combined, Dow spent a more than 2.2 million baht to purchase products in Map Ta Phut and Banchang districts. Our expenditures have helped increase the cash flow in the community economy.



We are part of the communities we reside and always contribute our efforts and supports to our neighborhoods.



Tax and fund contributions

Every year, Dow Thailand delivers a significant amount of corporate taxes to the country. In addition, we pay annually taxes to the administration of the localities where we base.

- **Tax payments**

Dow pays annually a combined amount of around 8 million baht of taxes, comprising property and land tax, local maintenance tax and signboard tax, to Map Ta Phut and Banchang Municipalities.

- **Financial supports to energy and power funds**

Dow Thailand contribute financial supports to the relevant funds through our supplier following our willingness to promote the pleasant co-living between business organizations and the neighboring communities. The funds we contribute every year include Power Development Fund, which has a main objective to promote the development of communities surrounding the sites of the power plants in the area.

- **Contribution and social development fund**

From 2009 to 2012, Dow has contributed more than 50 million baht to Thailand to fund community and social development projects in the country.

Responsible Operations

At Dow, the benefits of our business—products and services that make life better for people around the world—are accompanied by a commitment to Responsible Care® in the manufacturing and management of chemicals worldwide. We will make continual progress toward the vision of zero accidents, injuries or harm to the environment and will publicly report our health, safety and environmental performance. Our commitment is to ensure that our infrastructure has a positive impact on our company, our communities and ourselves; and our operations must serve as a model for others, wherever we operate.



Local Protection of Human Health and the Environment

At Dow, each employee has the responsibility to ensure that our products and operations meet all applicable government and/or Dow standards—whichever is more stringent. Dow achieves manufacturing excellence through effective implementation and leveraging of Most Effective Technology and Operating Discipline practices within and between businesses. Environmental Health and Safety (EH&S) requirements are among the drivers for continual improvement of manufacturing processes and Most Effective Technology, with experts from functions and businesses collaborate closely to improve our performance and ensure sustained progress against the 2015 Sustainability Goals.

We strive to eliminate all injuries, prevent adverse environmental and health impacts, reduce waste and emissions, and promote resource conservation at every stage of the life cycle of our products. Employees are required to participate in job-specific training and awareness programs that range from manufacturing specific safety processes and emergency response procedures to environmental practice programs such as 'Waste Reduction Always Pays' (WRAP) and the safety performance campaign as such 'Drive to Zero' .

The following information summarizes progress for many of the environmental, health and safety goals that are part of the 'Local Protection of Human Health and the Environment'.



Vision of Zero: Thriving over “Zero” Commitment

Dow Thailand is second to none across Dow Chemical’s operations worldwide for its health and safety operations. EH&S is our first priority and responsibility. We are committed to reduce the number of accidents, injuries, illness and negative impacts from our operations on the environment and pursued Dow Chemical’s “Vision of Zero” which aims to help Dow employees keeping a sharp focus on ambitious EH&S goals of zero accidents, zero injuries, zero illnesses and zero environment harms.

Drive to Zero

As part of “Vision of Zero”, the “Drive to Zero” safety program was introduced in 2006 to enhance awareness of local employees and contractors on the importance of the “Drive to Zero” goal that everyone goes back home safely every day. The program reflects our emphasis on safe behavior among our employees, contractors, and members of the neighboring communities. We expect our employees and contractors to not only act safely, but also to look out for their colleagues’ safety.

The “Drive to Zero” program’s objectives include:

- To underline the need for caution when working.
- To have proactive approaches such as identifying danger, reporting and fixing any unsafe condition and behavior before they cause accidents.
- To encourage every employee and contractor to appreciate a safe workplace and increase safety awareness of employees and contractors as well as to proactively intervene for any unsafe behavior and/or condition and prevent potential danger to others in both manufacturing areas and non-manufacturing areas.

The “Drive to Zero” concept is applied to every activity at Dow and its importance is reinforced to all Dow employees and contractors as the “Drive to Zero” logo is extensively presented on documents at meetings, flags raised in front of the plants and badges and helmets employees wear at manufacturing sites. All the efforts under the Drive to Zero campaign are designed to achieve its ultimate goal that everyone goes back home safely every day.

Health and Safety Performance

With shared commitment and joint effort from everyone, ‘Drive to Zero’ in Thailand has thrived. We have made great strides in keeping our people safe—both on and off the job—and we continue to strive to achieve our vision of zero personal injury.

Recordable Injury/Illness

The recordable incidence rates for the United States based manufacturing industry is averaged at 5 incidents per 200,000 hours. Chemical industry sector is one of the safest sectors, achieving an average rate of 2.4 incidents per 200,000 hours. Dow Chemical is leading the sector with lower recordable illness rate comparing to other global chemical companies. The annual recordable illness rate at Dow Thailand is well below the Dow Chemical Sustainable Goal of achieving the rate at 0.12 or less by 2015.



Strengthening Safety Standard Efforts

Dow Thailand puts a lot of efforts to maintain and strengthen our safety standard and program by implementing several initiatives which include:

- **Life Critical Standards** are designed to improve safety awareness and behavior in a global effort to further improve our safety performance.
- **Return to Operation Policy** is designed to ensure that we have proper commissioning of process equipment returning to service to prevent any possible LOPC incident.
- **Management of Change** is a discipline ensures that all changes will have been reviewed by experts and to have proper communication and training. This is to ensure that changes have been implemented effectively and smoothly.
- **Injury and LOPC Prevention Workshop** is held to provide Dow employees an opportunity to review learning and knowledge about EH&S experienced during year-round operations. In this workshop, Dow employees brainstorm and share ideas on risks and measures to prevent any possible incidents from happening.



- We continue our intensive EH&S training program and qualification to make sure that our employees and contractors are competent and that they have good safety awareness to perform their job.
- We build the strong culture of intervention for any unsafe behavior and/or condition through the Behavior Based Performance (BBP) program, site inspection (plant safety walkthrough), and on-spot recognition.
- We implement effective EH&S management systems for all new manufacturing projects to ensure the safe construction and the start-up of commercial production.
- Dow Thailand apply the similar EH&S standards to contractor management. We place a stringent screening process and ensure the effective training and the use of effective safety program. All contractors are also subjected to our annual performance assessment.
- Safety Day is an annual event which is a part of our effort to build up safety awareness. It reiterates Dow's commitment that safety is always the first priority and encourages employees and contractors to be fully committed to "Drive to Zero" safety program. Dow Thailand's employees with excellent EH&S performance will be recognized and awarded at annual Safety Day events while all employees and contractors are invited to participate in safety-promotion activities such as emergency response game and safety slogan contest.

Environmental Stewardship

Dow holds 'Protecting Our Planet' as a core value and we always keep it in mind at every level of our advancement. We try to minimize waste at all stages of operations and utilize all resources up to optimum level.

Reduce, Reuse, Recycle

Dow Thailand closely monitors and controls waste from the beginning of the processing cycle to the end point as to ensure that there is no impact on surrounding environments and communities. We work hard to minimize waste through the 3Rs – reduce, reuse, recycle. We use advanced technology to help us reduce the amount of waste from production, then we reuse and recycle our waste to the most possible. Waste that cannot be reused or recycled, meanwhile, will be utilized as alternative fuel or raw material at cement kiln facilities. The secured landfill is the least desirable alternative. Apart from fully compliance to the local regulations that involves deeds such as waste disposal permit and waste manifest for each waste transportation, we have our own stringent waste disposal facility audit as part of selection and qualification process. We also implement annual performance evaluation for all waste disposal service providers. Besides, all waste transportation vehicles have Global Positioning System (GPS) installed for tracking their routes until waste is properly and safely disposed of.

As we are ISO 14001 environmental management system accreditation, we continually reduce amount of waste, wastewater and discharged water from the production. The online measuring instrument for pH, TOC and COD, have been equipped to continuously monitor the quality of discharged water, ensuring that it will not affect the environment.



Continuous Emission Monitoring System (CEMS)

One of the advantaged environment practices at our facility in Rayong is the online analysis of air emission from combustion stack system called the Continuous Emission Monitoring System. The best-in-class arrangement helps our pollution prevention efforts as it works to monitor the emission closely to make certain that discharges by our operations are minimized and under controlled of the best stringent standard and not harmful to the environment and the community.

Our CEMS is connected to the computerized systems at the environmental monitoring center of the Industrial Estate Authority of Thailand for real time reports of emission data.



VOC's Controlling System

Dow Thailand places a significant emphasis on controlling the emission of volatile organic compounds (VOC's). Our VOC's prevention is well documented and operated stringently throughout the operating procedures, in addition to the best available technology implementation.

To minimize discharge of VOC's, we take great care in the design phase for all our production facilities, utilizing the best available technologies and strictly adhering to the best operational control practices, to ensure that our operations are not harmful to the environment.

Dow Thailand adopts "close system" technology for loading and unloading (vapor return line, dry-break coupling connection, etc.), sealless or double mechanical seal pumps and close sampling system for hydrocarbon materials, and the Continuous Emission Monitoring System (CEMS). In addition, we also have a fugitive emission program to regularly monitor minor fugitive leaks from pumps, valves, flanges, connectors, etc. and are committed to rapid repair to any detected leak. We also promote employees and contractors behavior to proactively report the potential leak or small drip and take corrective action to prevent big leak from occurring.

Energy Efficiency & Conservation

We maintain a strong commitment to energy efficiency and conservation. Each plant of Dow Thailand has efficient energy reduction programs such as the implementation of variable speed motor, process optimization, reduction of nitrogen and steam consumption.

As we aim for sustainable growth, all Dow facilities will continue to focus on reducing energy consumption. These efforts include initiating energy conservation projects, improving production process to reduce electricity and natural gas utilization, setting up variable frequency drive (VFD) to reduce speed of pump, and utilizing the best energy-saving and efficiency-enhancing technologies whenever possible.

In addition, Dow Thailand has strategically participated in a voluntary agreement program aimed to confirm the commitment in energy efficiency improvement. The program is called “Energy beyond standards” which jointly launched by the Department of Alternative Energy Development and Efficiency – Ministry of Energy, Thailand Environment Institute and Thailand Business Council for Sustainable Development.

Breakthrough Technologies to Environmental Challenges

The construction of a world-scale propylene oxide (PO) plant in the Asia Industrial Estates (AIE) site in Rayong affirms Dow’s commitment to breakthroughs to environmental challenges. The facility manufactures PO by using the innovative and environmentally advanced hydrogen peroxide to propylene oxide (HPPO) technology which was jointly developed by Dow and BASF.

The innovative HPPO technology won the Presidential Green Chemistry Challenge Award from the U.S. Environmental Protection Agency in 2010 and Innovation and Excellence Award in Core Engineering from the Institution of Chemical Engineers, headquartered in the United Kingdom in 2009.



Hydrogen Peroxide to Propylene Oxide (HPPO) Technology

HPPO technology is a more efficient and more environmental-friendly way to produce propylene oxide, which is a feedstock for a variety of industrial products including polyurethanes, propylene glycols, and glycol ethers that are used in end-use applications such as insulation, furniture, personal care products and brake fluids.

The breakthrough equipped at Dow’s PO operation site at AIE delivers environmental improvements to the PO industry and the environment by:

- Reducing wastewater by 70% to 80%, compared with existing PO technology.
- Reducing energy usage by approximately 35%, compared with existing PO technology.
- Reducing infrastructure and physical footprint with simpler raw material integration and avoidance of co-products.

Environmental-friendly Specialty Elastomers Plant

Our specialty elastomers plant in our Asia Industrial Estate site uses advanced technology to produce polyolefin plastomers and polyolefin elastomers in a more environmental friendly manner comparing with other conventional technology to produce polyethylene. The technologies include:

- Close system which vapor derived from production process is accumulated for elimination at the flare.
- No involvement of carcinogens and volatile organic compounds (VOC's) in the production process as required by the National Environment Board's 30th published announcement in 2007.
- No sulfur oxide emission.
- Utilization of Ultra Low NOx technology for burner and water heater to reduce the release of nitrogen oxide from production process.

Advanced Wastewater Treatment Plant

Our operations at the Asia Industrial Estate utilize the best available technology for Waste Water Treatment Plant (WWTP). WWTP is designed to use biological treatment as a main mechanism for treatment. The facility utilize an advanced treatment unit, such as Dynasand Filters and Activated Carbon Filters, to ensure that the quality of its effluent meets regulations.

There are online analyzers at the discharged point of WWTP to monitor the wastewater discharges. The online Chemical Oxygen Demand (COD) monitoring at WWTP discharged point is installed and continuously send signal to the responsible unit at the Industrial Estate Authority of Thailand.



Odor Treatment Plant (OTP), involving OTP blowers and activated carbon filter units, is installed to minimize odor in WWTP. All odor concern process areas, including Equalization tank, Diversion tank and Bio-reactor basins, are covered. The air from these process are used as alternative air in the biological treatment. The excess air will be treated by activated carbon filter unit. Since the first start up of OTP, there has never been any odor issue in WWTP.

Sharing Best Practices

Responsible operations at Dow means more than just setting a good example, it means sharing best practices with neighbors and partners.

For example, Dow is a key member of the Responsible Care Club in Thailand and Federation of Thai Industry, which serves as a channel through which we publicize our best practices for sustainable development. Over the years, Dow Thailand hosted many visits from private companies, manufacturers, and industrial allies for them to tour our sites and meet with our EH&S management team and learn about EH&S practice at Dow.

Our involvement and cooperation with fellow industry members, under the Community Partnership Association, as well as Thailand Environment Institute and Thailand Business Council for Sustainable Development, allows us to share our best practices with the industry and to collaborate with the industry members for the benefit of our community.

We also reached out to local schools in initiating "safety schools" project to educate young people about the importance of EH&S and how they can apply these safety lessons to their everyday lives.



Corporate Citizenship

At Dow, we believe in the power of the Human Element to change the world. We place a high value on listening to our communities and strive not just to be a good neighbor, but a good corporate citizen. Our promise is our most vital product and through authentic relationships we are building better, stronger and more sustainable communities in the places where we do business.



Our collective concern for the world around us drives us to put our expertise and imagination to work to create a better future. Our commitments include:

- Protecting the planet through responsible operations, unique collaborations, and the pursuit of breakthrough technologies aimed at solving world challenges.
- A workplace that supports employee development, proactive career feedback, health and wellness offerings, flexible work policies, diversity and inclusion, recognition and employee engagement.
- A creative, dynamic and friendly work environment that values diverse perspectives, is mutually respectful, and benefits from the vision and mentoring of leaders who rank among the best in the industry.

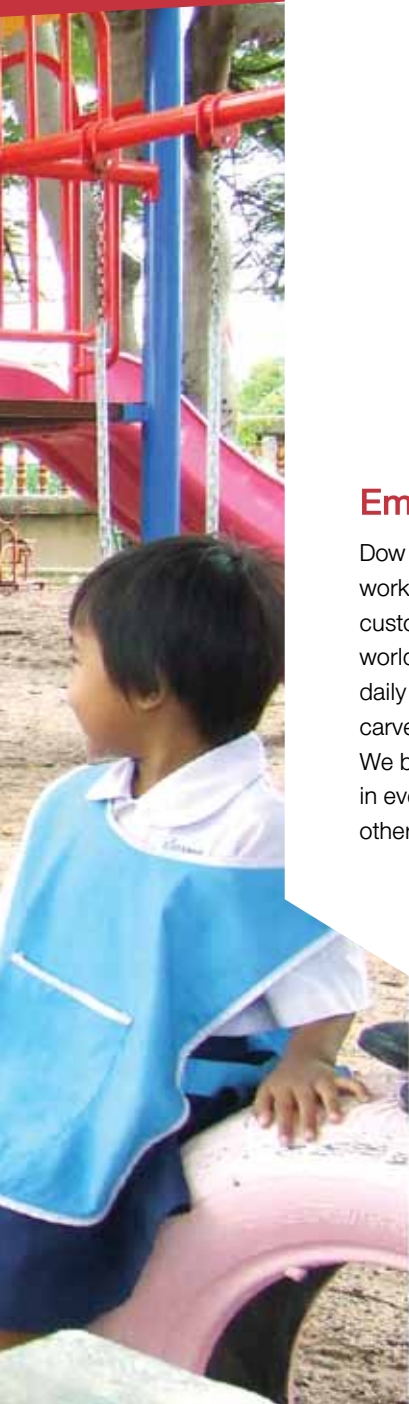


“Our goal is to make our employees across all ages and divisions happy at work. Our employees can envision their career paths here no matter what position they are in.

Employer of Choice

Dow is a company of solution providers, working together for positive impact on customers, our communities, and the world. We offer long-term adventure and daily rewards - and the opportunity to carve out a unique and vibrant career path. We both expect and nurture the leadership in every employee as we challenge each other to be the best.

Beyond that, we strive to customize our work environment to meet their needs for a healthy work place. Here is a performance-driven international company with tailor - made approach to take care of every local employee. Dow offers opportunities and remuneration that gratify employees and encourage them to do the works at their best,” said Human Resources Manager Siriporn Phuangmarayat.



1. Remunerative Provision of Welfare and Benefits

Compensation:

Dow rewards employees for their performance and contributions with compensation program including several benefits that are added to our remuneration package on the following criteria:

- Competitive compensation programs benchmarked against top companies in our industry. This allows Dow Thailand to attract and retain the best talents.
- Superior remuneration policy compared to market standards when employees and the company itself exceed goals and objectives.

Flexible Benefits:

This initiative was a result of a two-year study to boost employees' professional satisfaction. It allows individuals to fulfill their diverse needs and demands while still retaining core benefits.

Recognition@Dow:

Recognition is intrinsic to Dow organizational culture. We believe in showing appreciation to our employees who meet the job requirements and celebrate those who exceed expectations and go beyond requirements of them. Both supervisors and employees may nominate and reward their co-workers for their outstanding efforts. This recognition ranges from a simple congratulation card to cash rewards of different values. To make it easy to say "Thank you" regularly and meaningfully across the miles, Dow established an internal web-based Recognition@Dow tool, available around the clock for all employees to recognize their colleagues' day-to-day contributions as well as milestones results.



Health Programs:

These are aligned with global company goals and address local needs to protect and promote physical wellbeing of employees. The programs also include medical assessments before new employees start working at the company in order to assure that they are able to perform their new roles; general health evaluations performed periodically with all employees to promote early diagnosis of risk factors or diseases that have shown no symptoms; specific health evaluations according to the risks that employees may be exposed to; evaluations when a change in position implies a change in exposure; exams after a long absence, and exams before employees leave the company.

Employee Assistance Program:

A confidential service aimed at providing guidance and professional counseling to employees and their families, so that they can find solutions to personal problems. It includes confidential counseling on psychological, legal, and financial issues provided by experts who interact directly with the involved parties. The main goal of this program is to prevent and solve personal problems that may affect both the personal life and the professional performance of the involved parties.

2. Talent Development for Success

Dow Thailand has nearly 1,000 employees, 800 of whom are based in manufacturing site in Rayong. With a young workforce—33 years old on average—Dow puts a strong emphasis on providing promising career paths to our employees with the goal of retaining our valued existing talent and attracting talented people to join our growing team. As a global company, Dow is aware of the importance of diversity of ideas and cultures and differing needs of each employee. This celebration of diversity and culture of excellence are bound by a single joint mission: to drive sustainable growth together.

At Dow, professional development and advancement don't happen by chance. There are numerous learning resources available for Dow employees. Online classes, formal and informal mentorship programs, classroom workshops, and strong and active employee networks allow our people to grow in directions which build on their strength and interest.

Dow provides tools and resources in order to help employees develop professionally. We focus on four areas to facilitate employee development process: training, feedback mechanism, documented plan and plan implementation.

All employees have access to several training programs based on the roles and of skills required to succeed in those roles. Examples of career developing programs include:

Global program for language-learning assistance:

This program is provided to help employees acquire new language skills to help them broaden their professional impact.

Global program for future leaders:

This global leadership program is dedicated to all leaders at different stages of their career progress. It includes a series of resources and development tools to improve leadership skills with on-site courses as well as on-line classes, reading materials, and self-training programs.

Role-specific programs:

These are aimed to develop and improve technical skills required by certain professional areas.

Special courses:

These offered by local providers to address customized needs on the ground that the company's global program cannot meet.

3. Open, Flexible and Innovative Working Environment

In order to be an attractive employer, Dow believes in creating a work environment that is open, flexible, and innovative. This allows our employees to achieve their full potential in a professional environment which value both their business and personal accomplishments. Dow recognizes that our people have a rich and demanding life both inside and outside their workplace and aspire to become successful both the personal and professional spheres.

Dow fosters an environment that embraces diverse viewpoints, creative ideas, and unique strengths that our employees bring to work daily. The company encourages a culture that's inclusive of all people, all ideas, all thoughts, and most importantly, all differences. We will hardly innovate or grow if our people think the same way, do the same things, or are a product of the same environments.

In an endeavor to achieve Dow's business goals, leaders and employees must work together to meet the needs of both the company and its employees. This will allow the company to increase the productivity, personal efficiency, commitment, resilience, and agility of its employees, which will give us a long-term competitive edge to attract and retain the talented workforce needed to achieve its commercial strategy.

Contributing to Community Success

Dow's established corporate citizenship program illustrates our commitments through preserving and investing in communities, creating products to advance human progress, and generating shared value through philanthropic efforts.

By 2015, 100 percent of Dow sites where we have a major presence will have achieved their individual community acceptance ratings.

In Thailand, Dow and its joint venture, SCG-DOW Group, have continuously contributed to the society and communities focusing on education, environment, and community well-being. Dow also encourages employees to pursue opportunities to get involved in the community to cultivate the social responsibility awareness. Dow's employees across all levels have helped make a difference and make us proud to be part of the society.



Education

At Dow, we've built a company on innovation. It's at the foundation of everything we do. We realize that Education is the fundamental enabler of innovation in today's knowledge economy—that's why Dow has a long-standing commitment to improving it.

Through our partnerships with leading organizations and the involvement of our employees as volunteers, we have supported and implemented many education programs which are important for Thailand's development and aligned to our priorities as a company and a corporate citizen.

1. Science & Technology Innovation and Sustainability Awards (STISA)

In alignment with Dow's 2015 Sustainability Goals, the Science & Technology, Innovation, and Sustainability Award (STISA) program was launched in 2008. Dow has partnered with SCG Chemicals, Thai Institute of Chemical Engineering and Applied Chemistry (TICHE), the Thailand Research Fund (TRF), and the National Innovation Agency (NIA) to launch this program. The objective of this program is to promote collaborative forward thinking in social and environmental responsibility while acknowledging the energy, commitment and enthusiasm of the students and their university professors. The program has been implemented for 5 consecutive years, with more than 140 projects involved since 2009 through 2012.



2. Thailand Chemistry Olympiad

Dow Thailand was one of the major sponsors of the 8th Thailand Chemistry Olympiad as part of Dow's global Olympiad sponsorship in 2011. The sponsorship aims to promote chemistry interests among young generations, develop scientific potentials of Thai students and prepares them for international-level competitions. The competition covers analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, physical chemistry and spectroscopy. Qualifying team of four brightest chemistry students and two mentors are chosen and will attend the International Chemistry Olympiad (IChO).



3. Vocational Chemical Engineering Practice College Project (V-ChEPC)



Vocational Chemical Engineering Practice College or "V-ChEPC" is a new teaching initiative, two-year high vocational certificate program aimed to develop new technicians with the skills needed by the industry. The pilot site is at Map Ta Phut Technical College (MTPTC). The program is initiated by the Petroleum Institute of Thailand and the Petrochemical Club of the Federation of Thai Industries (FTI) to develop skilled and knowledgeable technicians required by the petroleum and petrochemical industry through the new human resources development concepts applying constructionism techniques "Learning How to Learn" and "Learning by Doing". Dow Thailand has contributed to V-ChEPC for one million baht a year for four consecutive years and has recruited four students graduated from the program to work for the company. Dow volunteers also join the program as mentors for students.

4. Dow English Club

In 2008, a group of Dow volunteers consisted of spouses of Dow expatriates and Dow staff established this program to teach English conversation to primary students in Map Ta Phut and Banchang communities in Rayong province. Students have an opportunity to learn from native-English speakers or Dow volunteers to improve their English conversation skill. Over the past four years, we have worked with a lot of students, encouraging them to be confident to apply their English-speaking skills and motivating them to further pursue their English-language study. The project has been implemented for 5 consecutive years, benefiting 9 schools and 1,340 students along the period.



5. Safety Schools



As safety is the first priority at Dow, our volunteers contributed their time to cultivate safety awareness among children and help improve the safety in neighbor community schools to ensure children have good and safe environment during their learning in the schools. Each year, Dow volunteers have visited 3-4 schools to provide basic safety knowledge to grade 3-5 students to learn how to make a school a safer place. The students will report unsafe condition or equipments after surveying their school with Dow volunteers. After the survey, Dow also helped school improve their safety by repairing their equipments or facilities with the budget of 100,000 baht per school as maximum. During 2009 to 2012, the company has improved the safety environment of 17 schools in Rayong.

6. Adopt-A-School

For about a decade, Dow Thailand has been supporting the Adopt-A-School project of the American Chamber of Commerce (AMCHAM) to improve hygiene and the environment of schools in Rayong province as well as providing educational support to students. The project includes funding the construction or renovation of school facilities such as bathroom, kindergarten room, classroom, libraries, playground, and providing other necessary educational equipments. As of 2012, the facilities of 8 schools have been renovated.



7. Football Camp

Dow, in collaboration with SCG Chemicals, has launched the Football Camp for youth in Rayong province since 2010 and continued conducting the program twice a year. The camp allows children, ages 6-15 years, to learn basic soccer techniques from professional coaches. The objective of the program is to encourage children to spend leisure time participating in creative and useful activity to develop their bodies and minds and prevent them from drug addiction and crime. The camp has been organized for three consecutive years with approximately 600 children joined the program in each year.



8. Scholarships

Dow Thailand's scholarship program has been offered annually since it began in 1975. Dow's 20 scholarships, 25,000 baht each, are granted to junior and senior university students each year to provide opportunities to students with good academic record to pursue their education in universities. The company has been contributed to Thailand education through this program for more than 30 years, with 71 scholarships were granted to students during 2009-2012.



The Environment

Dow's commitment to the protection of people and the environment is the common thread that runs through everything we do. Dow Thailand has demonstrated this commitment in many ways in our corporate citizenship program.



1. Sustainable Environment Management and Pollution Prevention Training Program

In 2011, Dow, partnering with Thailand Environment Institute (TEI), and the Department of Industrial Promotion, Ministry of Industry have established a 3-year industrial training program aiming to enhance the industrial standard in Thailand by providing the trainings and workshops to manufacturers and their personnel including environmental academics. By 2012, under the program, Dow has sponsored TEI to develop 6 training modules and manuals for key industries in Thailand, i.e. pharmaceutical, textile, beverage, metal, ceramics, and the general industry with 33 training sessions have been provided to 845 organizations involving 2,311 persons. This program will help upgrading industrial standard and promoting green industry in Thailand.



2. International Coastal Cleanup (ICC)

Dow Thailand has introduced the International Coastal Cleanup (ICC) program to Map Ta Phut and has been sponsoring the program for 10 consecutive years. Dow has collaborated with the Industrial Estate Authority of Thailand, the Tourism Authority of Thailand, and local businesses, to organize the activity annually to help remove trash and clean beaches in Rayong. This activity not only helps save marine lives but also raise awareness of coastal protection and the environmental conservation among the locals.

International Coastal Cleanup Activity Statistic (2009-2012)

Detail	2009	2010	2011	2012
No. of Volunteers	1,822	2,500	2,600	2,300
Coverage area (Kilometers)	6.5 (Baan Kon Aow-Sapan Kong Hua Rot)	17.5 (Laem Charoen-Pla Beach)	17.5 (Mae Ram Pueng Beach)	7.5 (Mae Ram Pueng Beach)
Weight of collected garbage (Tons)	5.1	13	8.17	15.3



3. Tree Planting and Protection Strip



To improve the community's quality of life by building green protection strip and increasing green area, Dow has organized and supported many tree planting activities. The activity is also to cultivate the environmental conservation awareness among its employees and communities.

During 2009 to 2012, more than 44,000 trees were planted on various occasions, e.g. the occasion of H.M. the King's birthday, H.M. the Queen's birthday, World Environment Day, and safety milestone achievements of the Thai Growth Project.



Tree Planting and Protection Strip (2009-2012)

Venue	Areas	Amount (plants)
In company's facilities at Map Ta Phut Inches in Industrial Estate	24,835 sq.m.	295 perennial plants
In company's facilities at Asia Industrial Estate	69,449 sq.m.	32,081 plants
Outside company's facilities on 1-10 road, MTP Estate	16,500 sq.m.	451 plants
Mangrove Forest at Prasae Reservoir	50 Rai (or 80,000 sq.m.)	6,500 plants
Huay Mahad Mountain with Chaklukya Forest Conservation Club	5 Rai (or 8,000 sq.m.)	5,000 plants



Community Well-being

The spirit, belief and commitment of Dow to improve the quality of life of its communities have existed for more than 100 years. Dow has long understood that local communities hold our license to operate. We play an active role in improving life in the communities we serve. We focus on needs and requirements from our communities and initiate our sustainable community development projects accordingly. Our communities not only participate in our activities but also play a part to develop the project with us.

1. Habitat for Humanity

With the cooperation with U.S. - based Habitat for Humanity, Dow's executives and staffs help build houses for people in several areas, including Banchang community, Map Ta Phut communities and Mabchalood community in Rayong. During 2009-2012, Dow has helped build ten homes for low income Thais to allow those less fortunate have their peace of minds in their own homes.



2. Participatory Banchang Development Plan Project

To support community success in sustainable development, Dow has supported Banchang District in introducing 'Participatory Banchang Development Plan Project' to allow residents in 22 villages of 3 sub-districts in Banchang district of Rayong province to participate in making the district's development plan for sustainable growth. The plan will define projects that each community can proceed without external assistance and projects that need support from the government or private sector and enable community to access the resource to support their community development.



3. Water-Purification Machine Fund

To enable communities and students to have clean drinking water, Dow has donated and installed more than 80 water purification machines in Rayong communities. This project also helps communities learn how to manage the income from the vending machine to benefit their communities and be able to operate the machine in a sustainable way.

4. Community Development Project with Community Advisory Panel (CAP)



In collaboration with CAP and to better the community's quality of life, Dow implemented 15 community development projects in 2012, such as community career promotion program focusing on Japanese food for housewives in Map Cha Lood community, farm processing project for Pala community, career development project for Wat Banchang community, garbage bank project for community welfare for Nong Yai community, mushroom and frog farming project for Payoon community, fish source making project for Wat Kiri Pavanaram community and sapling plant project and career development for youth in Pan Din Thai community.

5. Vehicle Registration Campaign

To support Rayong province, Dow Thailand has launched an internal campaign to urge all company's vehicles and employees' vehicles to register their license plates in Rayong. The effort was to help increase tax income for Rayong province. As of 2011, all company's vehicles in Map Ta Phut operation area have been registered in Rayong.



“I had used this car for 8 years until I decided to change a car license to be Rayong's according to Dow's internal campaign. Thank you Dow team for providing employees a great convenience on this program. This is truly a win-win campaign which benefits employees and our Rayong province,” said Khun Orladda Moolasartsatorn, Site Infrastructure Operation Leader.

6. Community Partnership Association (CPA)

CPA is the first major group effort of private sectors in Map Ta Phut Industrial Estate which was formed to strive for the development of clean, green and sustainable industries. Its founding members (PTT, SCG, BLCP, Glow and Dow) have common goals, which are to set an example of how industry and community can work together to improve our environment and to address our community's needs and to coexist in harmony. The group plans to involve more fellow industrial operators as well as public-sector entities in the association. The association also focuses on improving the quality of life of communities in areas of education and health. Their signature activities are mobile clinic covering 89 communities in Map Ta Phut and Banchang, Tutor Camp, Nurse Scholarships, VOC's manuals and training program, etc.



Community Engagement



1. Community Advisory Panel (CAP)

Dow's Community Advisory Panel (CAP) provides an important outside-in perspective on environment, health and safety, sustainability and business issues for the company. CAP members include local government, community leaders, media, and other community representatives. Currently, Dow has two community advisory panels; first, which was formed in 2010, is at Asia Industrial Estate and the other, which was formed in 2011, is at Map Ta Phut Industrial Estate. Since the first formation of CAP in 2010, there have been 16 meetings.

2. San Sum Phan (Community Meeting)

San Sum Phan program is an informal community meeting for the company to enhance its relationship with communities. The program involves dialogues with community to update the company's operation activities and listen to their concerns and suggestions. The program has been implemented in 49 neighboring communities in Banchang Sub-District Municipality, Muang Banchang Municipality, Pala Sub-District Municipality, and Muang Map Ta Phut Municipality. Since 2009, we have been conducted 240 San Sum Phan meetings.



3. Open House

'Open House' program provides an opportunity to communities to visit Dow's plants in Asia Industrial Estate and Map Ta Phut Industrial Estate. It aims to create better understanding about the company's business and allow community members to experience Dow's high safety and environmental management standard. From 2009 to 2012, we have conducted 40 Open House activity for about 160 communities.

Philanthropic Efforts

Besides our investment in community success, Dow Thailand also generates shared value through philanthropic efforts by providing charitable gifts to eligible non-profit organizations in the communities where we operate that contribute to community success, support sustainability, foster science in society and stimulate innovation.

1. Operation Smile:



We have been providing financial support for 'Operation Smile', which performs surgeries and post-operative care for those, who suffer from cleft palates since it began operating in Thailand in 1997. In 2012, Dow Thailand, together with its partners and employees, donated one million baht to Operation Smile Thailand. The fund is expected to help 70 cases of facial deformity surgeries and post operative care for children who live in Rayong province.



2. Protheses Foundation:

Since 1996 we've donated products to the Protheses Foundation under the Patronage of the Princess Mother. Our support has steadily grown from the original donation of 1,200 kg to more than 3,000 kg. We also provide the foundation with a training course and safety materials for the safe use of our products.

Natural Disaster Relief



With humanity spirit, Dow and its employees always reach out to those who suffer from natural disasters with no hesitation. Like the flood in 2011 affecting people nationwide, Dow and its employees immediately prepared and distributed hundreds of relief bags to affected communities. To help the country recover the soonest, Dow directed its assistance to affected agricultural sector by providing rice seeds to the farmers to help them restart their farming. In an effort to enhance the effectiveness of natural disaster response, Dow donated a financial support of USD 500,000 or approximately 15 million baht to Thai Red Cross Society in 2012.

Awards and Recognition

With excellent records of performance in sustainability, social responsibility, health programs and safety practices, Dow Thailand and SCG-DOW Group gain recognition from a broad range of organizations from industry trade groups and non-governmental organizations to regulatory agencies and governmental agencies.

2008-2012

- Good Governance for the Excellent Environmental Management and Social Responsibility Award (or Green Star Award) from the Industrial Estate Authority of Thailand for our continual effort for the excellent environmental management of our 6 plants.

2009-2012

- Zero Accident Award-Silver Level, in recognition of the achievement of 3,000,000-9,999,999 work-hours without lost-time injuries, conferred by Thailand's Ministry of Labor.

2010

- KPI Certificate of Honor for continuing support in reporting EH&S key performance indicators each year to the Responsible Care management committee of Thailand under the Federation of the Thai Industries (FTI).
- ISO 14001:2004 certificate renewal for polyethylene, polystyrene, styrene monomer, latex, and polyol plants.

2011

- Corporate Social Responsibility of Rayong from Rayong Governor as a recognition for sustainable corporate social responsibility programs.
- Green Meeting Certificate for Sustainable Development from Thailand Business Council for Sustainable Development.
- Dow and SCG-Dow Group successfully passed the third and fourth ISO 9001 surveillance audits, proof of the sustainable quality management systems under ISO 9001:2008 requirements.

2011-2012

- AMCHAM Corporate Social Responsibility Excellence Recognition (AEC) for sustainable community development programs, conferred by the US Ambassador.

2012

- Green Industry recognition from Ministry of Industry for the good environmental management and sustainable development of our 7 plants.
- White Factory certificate from Department of labor protection in recognition of narcotic-free in the workplace.
- ISO 9001:2008 certificate renewal for polyethylene, polystyrene, management of manufacturing for IRPS, polyol, formulated polyol and latex plants, and extended scope for propylene oxide and specialty elastomers plant.

Global Awards

- 2009** Innovation and Excellence Award in Core Engineering from the Institution of Chemical Engineers, headquartered in the United Kingdom, for Hydrogen peroxide to propylene oxide (HPPO) technology.
- 2010** Presidential Green Chemistry Challenge Award from the U.S. Environmental Protection Agency for Hydrogen peroxide to propylene oxide (HPPO) technology.



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