

# Time to rethink industrial development



Thailand's Supreme Administrative Court decision upholding a lower court injunction, which suspended work on 65 of the 76 industrial projects in the Map Ta Phut Industrial Estate due to environmental concerns, supports the constitutional rights of individuals to safety and good health. The injunction exposes the failure of State agencies to issue proper operating licenses for industrial projects. Thailand must embark on a complete rethinking of its industrial development policy, addressing its economic problems and generating employment while not damaging people's health and the environment.

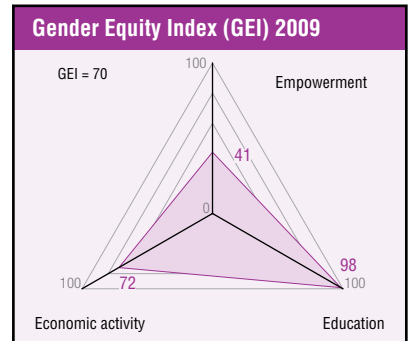
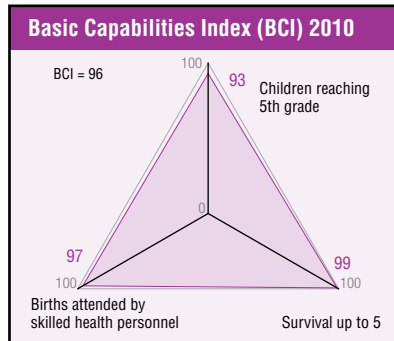
Social Agenda Working Group  
Chulalongkorn Social Research Institute  
Ranee Hassarungsee  
Suntaree Kitaprajuk

After the discovery of natural gas in the Gulf of Thailand in 1973, the Map Ta Phut Industrial Estate (MTP IE) was included in the Eastern Seaboard Development Programme (ESB). The ESB – which covers Chachoengsao, Chon Buri and Rayong provinces, located near Bangkok – was introduced as one of the priority issues of the Fifth National Economic and Social Development Plan (1982-1986) when Thailand started to shift its economic development strategy from import-substitution to export-led industrialization, a comprehensive plan to alleviate the high unemployment situation in the country.<sup>1</sup>

The State-owned MTP IE, introduced in 1981, comprises two main parts: industrial estate and industrial seaport. Construction was started in 1987 and finished in 1990. Originally, the total investment was said to be THB 370 billion (USD 11.4 billion), with the generation of approximately 11,500 jobs. It began with a total area of about 672 hectares; owing to the boom in the petrochemical industry however it has expanded to about 1,200 hectares.

In recent years, the rapid agglomeration of industries has contributed to increased employment and income in the ESB. According to the National Economic and Social Development Board (NESDB), from 1995 to 2000, direct investment created about 460,000 jobs in the area. Even in the midst of the Asian economic crisis (1997-99), it was reported that while Bangkok lost 120,000 jobs, areas in the vicinity of the ESB added 57,000 new jobs.

To the wider Thai and international public, the MTP IE has been hailed as the world's leading industrial development model equipped with standardized and high-tech environmental management of water, air and toxic wastes. But the affected communities show that Mab Ta Phut is the most severely polluted area with the country's highest number of patients with industrial development-related diseases.<sup>2</sup> It currently houses over 90 industrial facilities, including oil refineries, petrochemical and chemical facilities and hazardous waste landfills and



treatment facilities with over 200 stacks emitting toxic pollution over 25 surrounding communities.

Today, the province is a center for industrial development and shows the country's highest per capita GDP, eight times above the national average. But such economic development concentration has led to unequal income distribution among different population groups, preventing the provincial public from enjoying expected higher levels of development.

### Threats to human and environmental health

Over two decades of industrial development have turned the area, once characterized by small rural farming and fishing communities, into the country's number-one toxic hot spot. Rapid industrialization has led to deteriorating natural resources and changes in social and economic structure following by numerous social, socio-economic, environmental, and health problems. Accumulated pollution and environmental problems as well as mysterious diseases have emerged, intimately linked to each other. They drastically affect locals who lack the capacity to negotiate with the powerful industries or bureaucratic agencies.<sup>3</sup>

The main effects on the environment and peoples' health are:

1. **Air pollution:** For more than 10 years, Map Ta Phut residents have suffered from various forms of pollution, especially air pollution caused by volatile organic compounds. Over 200 smoke and flare stacks in MTP IE have been emitting voluminous amount of pollutants into the air and spreading them to neighbouring communities. A number of studies have indicated links

between exposure of residents to pollutants such as benzene, styrene and xylene and the increase in diseases related to the respiratory system, nervous system, reproductive system, muscle system, and mental disorder.<sup>4</sup>

The pollution hazards for Map Ta Phut Panphit-tayakarn School were brought to public attention in 1997. Around 1,000 pupils and teachers suffered from illnesses after inhaling toxic emissions and had to be hospitalized for breathing difficulties, headaches, nasal irritation and nausea. In 2005, the Ministry of Education approved the school's relocation to a site five kilometers away from the original compound.<sup>5</sup> Since then, the area has been recognized nationwide as the most obvious and serious case of undesirable impacts from unsustainable industrialization.<sup>6</sup> A test carried out in 2005 by US-based Global Community Monitor (GCM) demonstrated that airborne cancerous toxic chemicals such as benzene, vinyl chloride and chloroform released by Map Ta Phut Industrial Estate exceeded safety standards of developed nations by 60 to 3,000 times.

2. **Water pollution:** Now every household in Mab Ta Phut and the Rayong's Muang district has to buy water for consumption because of no longer being able to use water from their ponds. The ponds and lakes are contaminated with toxic chemicals due to the dumping of toxic waste, which the rainwater flushed into the rivers and then the sea.<sup>7</sup> Water resources in the area around the estate were found to be contaminated with metallic

1 Penchom Saetang, "Industrial Pollution in Thailand: A Case of Eastern Seaboard Development and Japanese Aid and Investment," Campaign for Alternative Industry Network, May 2006.

2 "Failed pollution reduction plan, no time to delay Mab Ta Phut control," *ASTV Manager Daily*, 16 March 2009.

3 "Thailand's Air: Poison Cocktail, Exposing Unsustainable Industries and the Case for Community Right to Know and Prevention", Campaign for Alternative Industry Network, greenpeace Southeast Asia, and Global Community Monitor, October 2005.

4 *Ibid.*

5 UNESCO-Bangkok programme on Ethics and Climate Change Asia and the Pacific, "Representation and who decides," 28 November 2009.

6 "Thailand's Air: Poison Cocktail," *op. cit.*

7 "Lessons learnt by local people are important for deciding the future development direction of society," *Watershed Community Voices* Vol. 7, November 2001-February 2002.

elements. Water samples tested from 25 public ponds in the Map Ta Phut municipality indicated the presence of hazardous levels of toxic substances. Cadmium was six times the safety level, zinc 10 times, manganese 34 times, lead 47 times and iron 151 times.<sup>8</sup>

The report from the Rayong public health office confirmed the contamination with iron, lead, manganese, and chloride over drinking water standard, in many groundwater sources. Since only two communities have access to public pipe-water, therefore over 22 communities have to pay much higher costs for buying drinking, potable water. Fruit farmers also complain that the acid rainwater damages their fruit trees.<sup>9</sup>

**3. Illegal hazardous waste dumping and seashore erosion:** Ms Penchom Saetang of Ecological Alert and Recovery – Thailand (Earth), pointed out that every year since 1998 there has been illegal dumping and a continuing erosion of the coastal area: “The local people have demanded several times to stop the expansions of the industrial estate areas but their voice was ignored by the Industrial Estate Authority of Thailand (IEAT).”<sup>10</sup>

She added that since 1999, the Natural Resources and Environmental Policy and Planning Office has warned that air pollution in Mab Ta Phut had exceeded the area’s carrying capacity and no further investment should be made. The warnings were based on a detailed study on the area’s pollution carrying capacity; however, the IEAT did not accept this study, calling it questionable and proposed that a joint model be developed while the industrial sector insisted on expanding their activities ignoring the affected people’s opposition.<sup>11</sup>

**4. Health impact:** According to the information obtained between 2003 and 2005, the number of Mab Ta Phut people suffering from pollution-related respiratory system, skin and occupation-related diseases was higher than those in other areas of Rayong province. Moreover, the incidence rates of all types of cancer and leukemia of Rayong’s Muang district were higher than those of other districts of the province.<sup>12</sup>

According to the National Cancer Institute, the incidence of cancer in Rayong, where the Map Ta Phut industrial estate is located, is 182.45 per 100,000 people, compared to the national average of 122.6. The leukemia ratio is also higher; 6 per 100,000 people, whereas the national average is about 3.55. The Rayong public health office reports that the ratio of birth deformities, disabilities and chromosome abnormalities drastically increased from 1997 to 2001, from 48.2 per 100,000 people to 163.8 people, an increase of 300%.<sup>13</sup>

### Government’s action: complete failure

Since 2007, the environmental and health conditions in Mab Ta Phut have been drastically deteriorating. Non-

governmental organizations (NGOs) and local community groups have called on the Government to declare Mab Ta Phut a pollution control area, but to no avail.

On 1 October 2008, 27 people representing those living in 11 communities around Rayong’s MTP IE filed a lawsuit in Rayong Administrative Court against the National Environment Board (NEB), chaired by the Prime Minister, accusing it of failing to comply with legal procedure by not designating Mab Ta Phut and nearby areas as pollution control areas.<sup>14</sup>

The Rayong Administrative Court issued its ruling on 3 March 2009 stating that different documents all pointed out that Mab Ta Phut pollution is adversely affecting the people’s health and their environment. The court also admitted that the pollution in Mab Ta Phut Municipality has continued to be so severe that it could harm people’s health and environmental quality. Although two ad hoc working committees were set up after 2007 to address the problems in Rayong, the pollution intensified. Even so, the NEB failed to designate the Mab Ta Phut Municipality as a pollution control area, arguing that almost all factories in the area already cooperated in the committees’ pollution reduction and elimination action plans. The court ordered that the NEB cleaned up the polluted industries within Map Ta Phut Industrial Estates, and to declare the areas around the estates a “pollution control area” within a timeframe of 60 days.

The NEB announced on 11 May 2009 that Map Ta Phut projects could proceed even though it had declared Map Ta Phut a “pollution control area” in the Royal Gazette on 30 April 2009 in accordance with court rulings. Despite prior court rulings stipulating that the Government must work towards environmental conservation, the NEB has now permitted all investment plans in the area, including those in the process of seeking environmental impact assessments, to continue with development as per normal in order to avert the disturbance of investments.

### Legal actions on peoples’ rights

Thai Government’s actions permitting and encouraging the activities of the Mab Ta Phut factories in order to further economic growth to the detriment of the local residents and the environment demonstrate an inconsistency with the implementation of precautionary principle and the principle of sustainable development.

In September 2009, a Central Administrative Court injunction suspended 76 industrial projects at Mab Ta Phut due to environmental concerns. The injunction followed complaints from residents and environmental groups that state agencies – including the NEB, ministries of industry, energy, natural resources and environment, and the IEAT – had failed to issue proper operating licenses. On 2 December 2009, the Supreme Administrative Court allowed 11 of the 76 projects to continue operating, with 65 to remain shuttered until

they comply with the environmental and health requirements of Section 67 of the 2007 Constitution.

The failure of the Ministry of Natural Resources and Environment was clearly stated in the Court ruling: “the rights of individuals under Article 67 of the charter are protected. The fact that there are no laws yet to set the regulations, conditions and methods of exercising such rights is not a basis for a state agency to use as an excuse to deny them the protection. Thus, before the implementation of any project or activities which may cause serious threats to the quality of the environment, natural resources and health, the provision in Article 67 must be fulfilled – that is there must be a study or assessment of health impacts on people in the community where the project is to be located.”<sup>15</sup>

### Conclusions and recommendations

The predicament of Mab Ta Phut residents is further supported by the results of an environmental governance assessment carried out by the Thailand Environment Institute (TEI) and the Thailand Environmental Governance Coalition (TAI Thailand), which revealed that the Government had persistently encouraged the operations of industrial plants at Mab Ta Phut to the detriment of the health of the communities and the environment.

The environmental governance assessment was initiated in 2007 to evaluate the Petrochemical Industrial Development Master Plan (Phase III), the Pollution Reduction and Mitigation Action Plan for Rayong Province, and the Mab Ta Phut Town Plan. TAI indicator-based methodology was used to examine people’s access to information, participation in decision-making, and access to justice. The assessment found that the three plans abovementioned failed in successfully implementing the right of public participation.<sup>16</sup>

Ms Penchom Saetang, who spent more than 10 years studying and documenting the Mab Ta Phut pollution troubles, pointed out that so far Thailand’s industrial development has been carried out in an unsustainable, harmful and polluting manner. It has not taken into account human resource development, equal distribution of development benefits and adverse effects of the industrial development activities.<sup>17</sup> She added that Thailand is now captivated by the industries, whose operations are strictly controlled in their own countries while trying to relocate their polluting activities to other nations.

Heavy industries in the countries that are required to lower their greenhouse gas emissions will move their operations to the countries where their greenhouse gas emission quotas are not fully used. It is time for Thailand to completely rethink an industrial development strategy that can address economic challenges and generate employment without harming the country’s natural resources and the environment. ■

8 UNESCO Bangkok programme, *op cit*.

9 “Thailand’s Air,” *op cit*.

10 Malini Hariharan. “Thailand’s Map Ta Phut crisis—the NGO side of the story,” ICIS, 2010. Available from: <[www.icis.com/blogs/asian-chemical-connections/2010/03/thailands-map-ta-phut-crisis—](http://www.icis.com/blogs/asian-chemical-connections/2010/03/thailands-map-ta-phut-crisis—).html>. (Accessed 18 March 2010).

11 “Uprooting Mab Ta Phut,” *Thai Post*, 14 March 2009.

12 Rayong Administrative Court’s ruling (2009), quoted in Kanuengnij Sribua-iam, “Judicial procedure, environment and health: lessons learned from the Mab Ta Phut case.

13 “Rayong awaiting its day in court,” *Bangkok Post*, 29 November 2009.

14 Section 59 of the Enhancement and Conservation of National Environmental Quality Act, B.E. 2535 (1992) states: “In case it appears that any locality is affected by pollution problems and there is a tendency that such problems may be aggravated to cause health hazards to the public or adverse impact on the environmental quality, the National Environment Board shall have power to publish notification in the Government Gazette designating such locality as a pollution control area in order to control, reduce and eliminate pollution.”

15 “Despite industrial fallout, the court’s Mab Ta Phut verdict is welcome”, *Bangkok Post*, 3 December 2009.

16 UNESCO Bangkok programme, *op. cit*.

17 Interview, 6 March 2010.