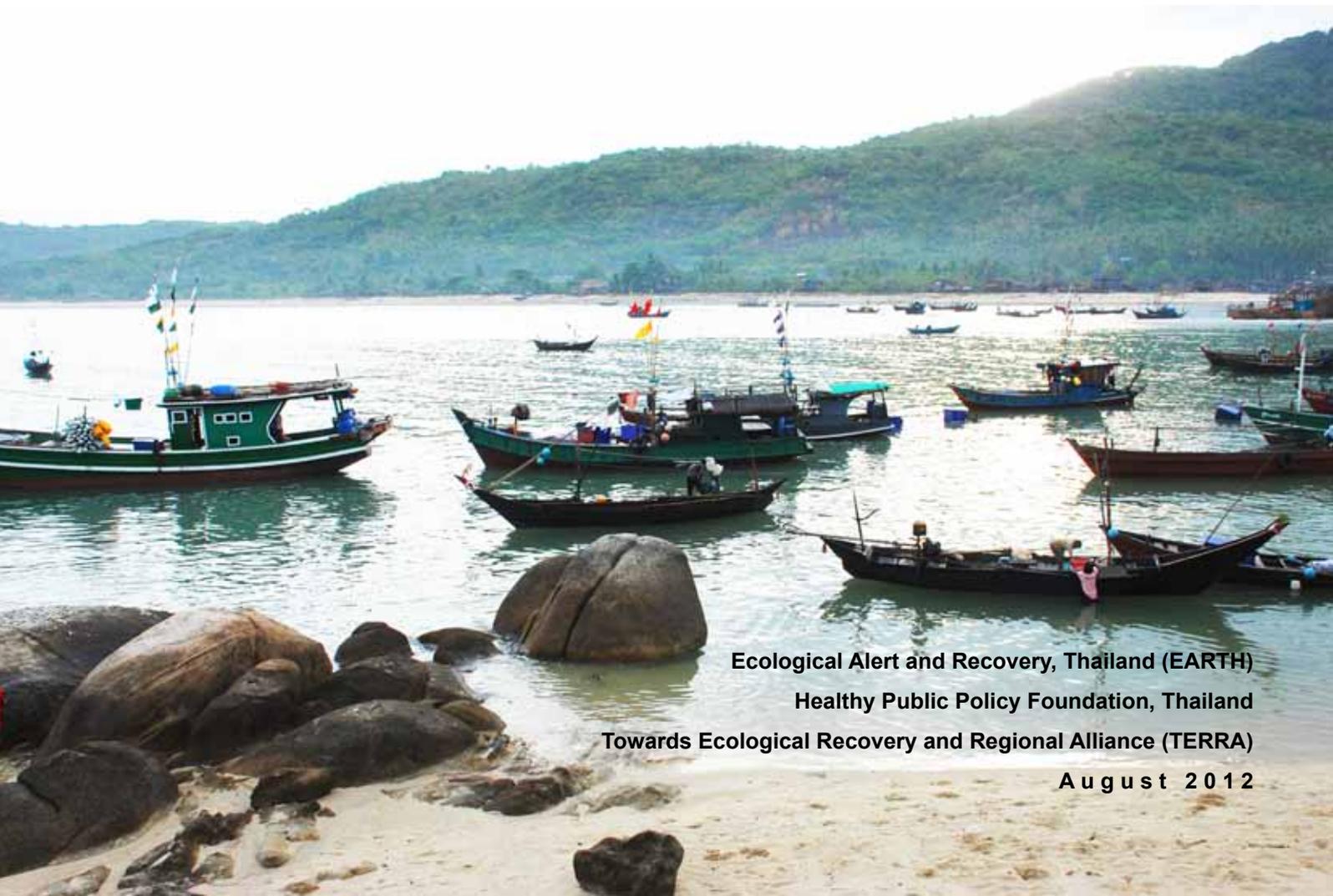


Dawei : Points of concerns

Dawei is the capital city of Tanintharyi Division in the coastal region of southern Burma/Myanmar. It borders the Andaman Sea to the west and the Tanintharyi hills, beyond which lies Thailand's Kanchanaburi province to the east. Various ethnicities such as Dawei, Bamar, Mon, Kayin, Rakhine, Shan and Salone reside in Dawei.

As Dawei is in the coastal region, fishery is one of the main means of livelihoods for the local people. Depending on the weather, fishers go out to the open sea, sometimes for days at a time, and returning after they have caught sufficient amount. The fish, crabs and prawns caught provide an important source of protein and income, with surplus catch sold for the export market.

The growing and selling of agricultural products also plays an important role in sustaining people's livelihoods. The trading of betel, rubber, palm oil, cashew and tropical fruits make a significant contribution to the local economy.

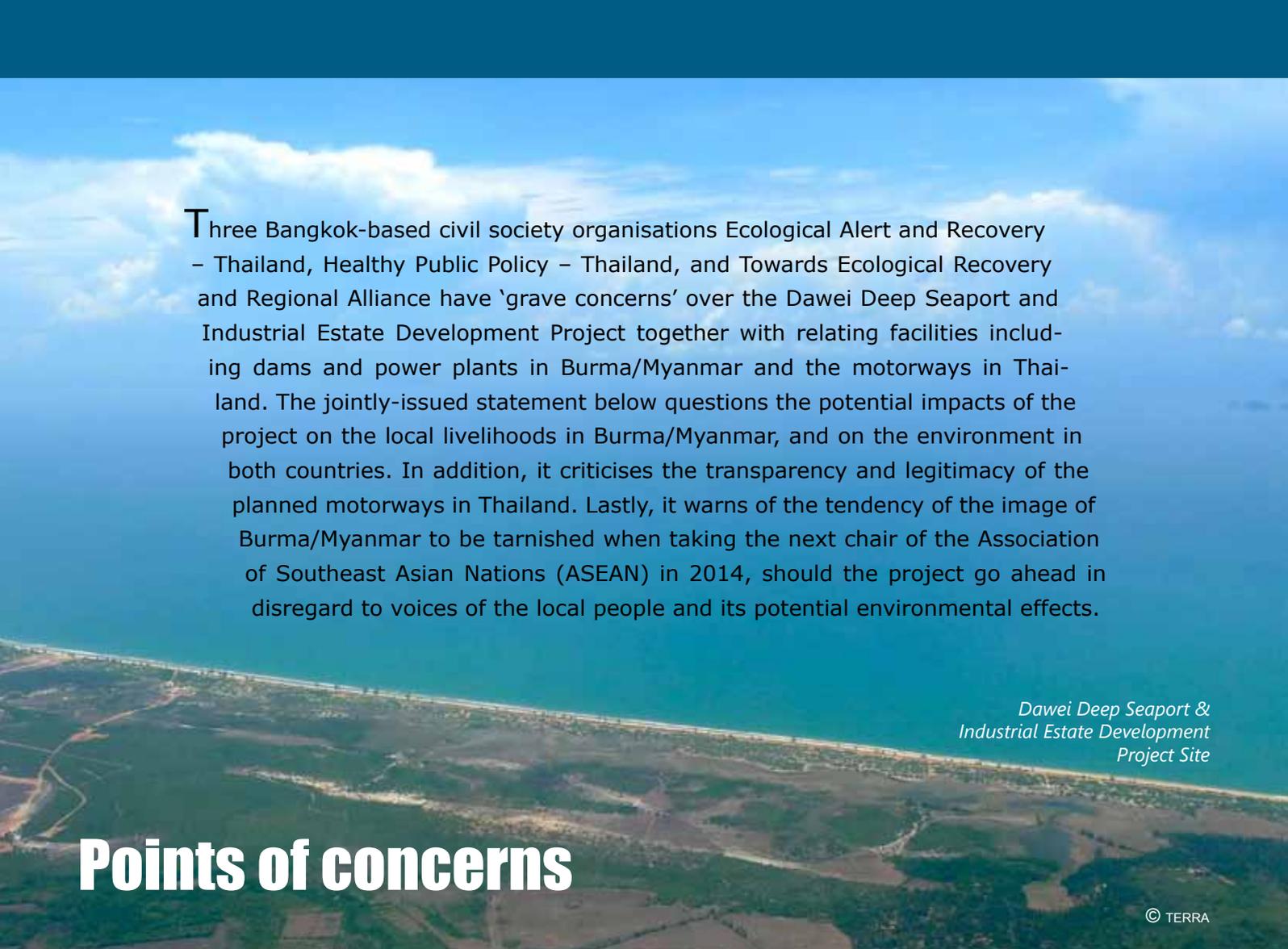


Ecological Alert and Recovery, Thailand (EARTH)

Healthy Public Policy Foundation, Thailand

Towards Ecological Recovery and Regional Alliance (TERRA)

August 2012



Three Bangkok-based civil society organisations Ecological Alert and Recovery – Thailand, Healthy Public Policy – Thailand, and Towards Ecological Recovery and Regional Alliance have ‘grave concerns’ over the Dawei Deep Seaport and Industrial Estate Development Project together with relating facilities including dams and power plants in Burma/Myanmar and the motorways in Thailand. The jointly-issued statement below questions the potential impacts of the project on the local livelihoods in Burma/Myanmar, and on the environment in both countries. In addition, it criticises the transparency and legitimacy of the planned motorways in Thailand. Lastly, it warns of the tendency of the image of Burma/Myanmar to be tarnished when taking the next chair of the Association of Southeast Asian Nations (ASEAN) in 2014, should the project go ahead in disregard to voices of the local people and its potential environmental effects.

*Dawei Deep Seaport &
Industrial Estate Development
Project Site*

Points of concerns

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Thai investors have chosen to develop the Dawei Project to avoid strong local opposition to expansion of existing industrial estates in Thailand

Under Thailand’s Petrochemical Industrial Development Master Plan (Phase III), there are two options for industrial expansion. The first is in and around the Map Ta Phut Industrial Estate in Rayong province, eastern Thailand, and the second involves expansion beyond Map Ta Phut to the south of Thailand, in Sichon district, Nakhon Sri Thammarat province.

However, many large investors such as the Petroleum Authority of Thailand (PTT), and policy-makers such as the Industrial Estate Authority of Thailand, have had to look for alternative sites for investment due to the following risks and pressures:

- There has been strong local opposition to the expansion of industrial zones, especially petrochemical industrial zones, in the South and in Map Ta Phut. This has taken the form of public protests, especially in the south.
- Local communities in Map Ta Phut have filed two cases with the Administrative Court. In 2007, they called for Map Ta Phut to be declared a pollution control area, and after that, they called for cancellation of seventy-six new projects in Map Ta Phut and the surrounding area because they violated Section 67, paragraph 2, of the Thai Constitution. Even though most projects have been able to proceed after the court rulings, these cases have signaled an increased risk for investors.
- Research has shown very high levels of pollution in the Map Ta Phut area, including air, water and hazardous waste pollution. The air in particular contains many kinds of pollutants that are dangerous to people’s health and to the environment. Therefore, in terms of environmental and ecological safety, it is evident that this area should not be extended for further investment, even though basic infrastructure already exists.
- There is a limitation of water supplies in the industrial areas in Rayong and Chon Buri, which require large quantities of water. In the coming years, these industries are likely to face serious water shortages, especially during times of drought.
- There is more opportunity now in Thailand for people to exercise their rights, particularly to protect their health, environment and natural resources. There is therefore a strong risk of lawsuits for damage to health and the environment that may occur in the future.

Thailand's experience with the Map Ta Phut Industrial Zone shows clearly the dangers of carrying out industrial development without proper legal safeguards and enforcement mechanisms to protect local communities

Under Thai law, environmental impact assessments (EIA) and health impact assessments (HIA) must be carried out for large projects which could have harmful impacts on the environment. HIAs have been mandated in Thailand since the National Health Act of 2007.

However, there has not yet been a case where an EIA or HIA has caused a project to be cancelled. Even if a project will have severe impacts on the environment and health, the EIA and HIA will simply call for additional measures to be carried out to mitigate the impacts when the project is in operation.

The Post-EIA Monitoring Unit of the Office of Environmental Policy and Planning (OEPP) has the responsibility to check if factories are complying with mitigation measures called for in EIAs or HIAs. There is not yet any separate mechanism for post HIA monitoring. However, monitoring of compliance is very difficult, and requires considerable expertise and resources. The Thai government currently lacks the ability to monitor and take action against operators who violate the law or do not follow the mitigation measures. This is a big loophole in the law.

It has been proposed that the public sector should monitor this, but this has not been possible due to a lack of technical expertise, resources and time.

Thailand also lacks several important laws to control pollution which have been used for a long time in other industrialised countries such as Europe, America and Japan: for example, laws which demand that factories must report the amount and type of



A house in Map Ta Phut

pollutants released into the environment, and disseminate this information to the public. There are no designated levels of chemicals which constitute a threat to health, no law on compensation for damage to health and the environment from pollution, and no enforcement of the principle that the polluter pays, etc.

Furthermore, the scale of the petroleum and petrochemical industries means that investors wield great political and economic influence. As a result, government officials do not dare to investigate or take legal action against them.



Pristine Dawei River: Water from this river might be taken to feed industrial activities and risks being contaminated by discharge from industrial estate



Fishing boats at Bor Seik village

© TERRA

The experience of Map Ta Phut shows that the local people of Dawei will not benefit from the industrial estate project

The main group that has profited from the Map Ta Phut industrial estate are big investors, both foreign and Thai. Small-scale investors do not have enough capital or technological expertise to invest in petrochemical industries. Other groups that benefit are politicians, senior officials, or other related businesses such as construction and transportation.

At the same time, small local businesses, whether tourist businesses, hotels, resorts, grocery stores and so on, have been adversely affected by the industrial development, particularly by pollution, including from construction of roads and ports, which has permanently destroyed the coastline and beautiful beaches for which Rayong used to be famous.

Most local residents have had no chance to be employed in the industries, because they are not qualified enough to work in high-tech factories. Only a few are hired as housekeepers, gardeners or drivers.

Local residents have also suffered from loss of agricultural areas, fisheries and gardens, and are no longer able to be self-reliant. Their traditional sources of water such as rainwater, canals and shallow water wells, have been contaminated with toxins from the atmosphere, and from polluted wastewater entering the ground. The pollution and environmental changes have caused serious health problems. In addition, Rayong has the highest national cancer rates in many different types of cancer, such as: Oral Cavity Cancer, Nasopharynx Cancer, Hypopharynx Cancer, Esophagus Cancer, Stomach Cancer, Larynx Cancer, Urinary Bladder Cancer, and Leukemia.

Industrial accidents, such as the recent chemical explosions and a large fire erupted inside the Map Ta Phut industrial estate in May 2012, and have led to 11 deaths and more than a hundred people injured. The industrial accidents have dangerous impacts over a radius of several kilometres. In addition to loss of life and property, the ecology and environment can be permanently contaminated with toxic substances over a very wide area.

Local people's traditional way of life and culture has also been impacted by the large number of migrant workers moving into their area. Moreover, according to the Chamber of Commerce in Rayong, the gap between rich and poor has become wider and wider.



Morning fish market at Bor Seik village

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Thai people have strong concerns about the impacts of the Dawei project on the Thai side of the border

Thai people are very concerned about the impacts of the Dawei project on Thailand, particularly the spread of toxic pollution from the project, and infrastructure development on the Thai side of the border, which will have a huge impact on the local economy, natural resources and culture.

Until now, the Thai government's policy has been to fully support the Dawei project. There are plans to build a new motorway from Pu Nam Ron, Kanchanaburi province, to Laem Chabang Port in the East. However the government may not be able to speed up the implementation of this, due to opposition from civil society, who are monitoring the environmental, social and economic impacts of the project, as well as questioning its legitimacy.

Concerns of Thai civil society are as follows:

- There has been no environmental impact assessment for the motorway links on the Thai side of the border to the Dawei project. These include:
 - (1) the motorway from Pu Nam Ron at the Thai-Burma border to Huay Talung in Kanchanaburi, which is a distance of 70 km. It is not yet possible to extend the road into a motorway, because there needs to be an EIA and public hearings first, which will take at least one year;
 - (2) the highway from Kanchanaburi to Ban Pong, and Ban Pong to Bang Yai, a distance of 96 km, which 573 household will have to be moved. Even though an EIA was carried out by the National Environment Board in the years 1999 and 2003 respectively, this was only for transportation between cities within Thailand. If the motorway was to serve the Dawei project, it would have to be expanded significantly, and the EIA would have to be done again.

- The influence of the southwest monsoon may cause pollution from the Dawei project to reach Thailand. Pollution from the 3,600 MW coal-fired power plant and the various industrial factories in Dawei, especially in the rainy season, may cause acid rain which will affect the Thung Yai Naresuan Wildlife Sanctuary, which is a World Heritage Site.
- Contamination of air and water by dangerous chemicals from the Dawei project may affect the economy of provinces in the west of Thailand, especially Kanchanaburi, which gets its main income from tourism.
- The government (through the National Energy Policy Council) has approved the signing of a contract by the Electricity Generating Authority of Thailand (EGAT) to buy 3,600 MW or more of electricity from a coal-fired power plant in the Dawei industrial zone. This will result in having to rely on more than 5,500 megawatts of power from Burma (with more than 3,600 megawatts from a single source). This raises the question of whether this is necessary and appropriate at a time when civil society groups are calling on the Thai government to review its energy plan, as it will lead to excess investment, increased cost of electricity for consumers, and construction of a large power plant which will be hazardous to the environment.
- The use of the Thai national budget, i.e. people's taxes, on construction of about 170 km of highway between Bang Yai and Pu Nam Ron, to link with the Dawei project, which is a private investment, is highly controversial. This is likely to become a hot public issue, which the government will need to respond to in a clear and transparent manner.

Constuction of the road (May 2012)

The project includes transborder road link: four-lanes divided highway with full access controlled and plus eight lanes in the future





Rice fields not far from the project

© TERRA

Failure to carry out a strategic environmental assessment (SEA) on the whole Dawei project will mean that dire cumulative impacts of the project will be ignored

The Dawei industrial estate will be about ten times larger than the Map Ta Phut Industrial Estate in Thailand. It will include a deep-sea port, a coal-fired power plant, petrochemical and other related industries, which will cause massive pollution. However, there are not yet legal measures in place such as investment control laws or environmental control laws to deal with the problems that will arise from heavy industrial projects. As a result, the Dawei industrial zone will likely produce an enormous amount of toxic emissions, polluting the air, fresh water sources, rivers and coastal areas. This will impact local resources, ecology and people's health. However, the investors have not planned to carry out a strategic impact assessment, to look at the overall impacts of the whole project on the ecology both on land and in the sea, and on the whole population in Dawei. And most importantly, there is no clarity around the process of carrying out the impact assessments of the project.

Furthermore, the fact that the project will need to use 2,150 million cubic metres of water per year will affect public water sources in the area and also impact the local ecology, especially the Dawei River in the dry season. There will also be about 1.5 million cubic metres of waste water released each day. This will directly impact the ecology of the surface water sources, the coast, and the water usage of the population of Tanintharyi.

Unfortunately there is no Thai law that demands a strategic environmental assessment for cross-border investment projects, such as the Dawei project. The Thai environmental law only demands an environmental impact assessment (EIA) at the project level. Even the 2007 Constitution, Section 67, only requires environmental and health impact assessments at the project level.

Even though there is no law, the Thai government could carry out an SEA if it wanted. However, in the case of the Dawei project, the Thai government is placing its faith in the Italian-Thai Development Company. In fact, a project the size of the Dawei project should definitely have a strategic environmental assessment, or SEA, because if EIAs are only carried out for the separate components of the project, then the cumulative effects of the whole project on the environment and health of people in the area won't be taken into account.

At the moment, it has been identified that only three groups of people will be directly impacted by the project, and will have to move to resettlement areas, where the land is much less produc-

tive than their former homes. These groups include:

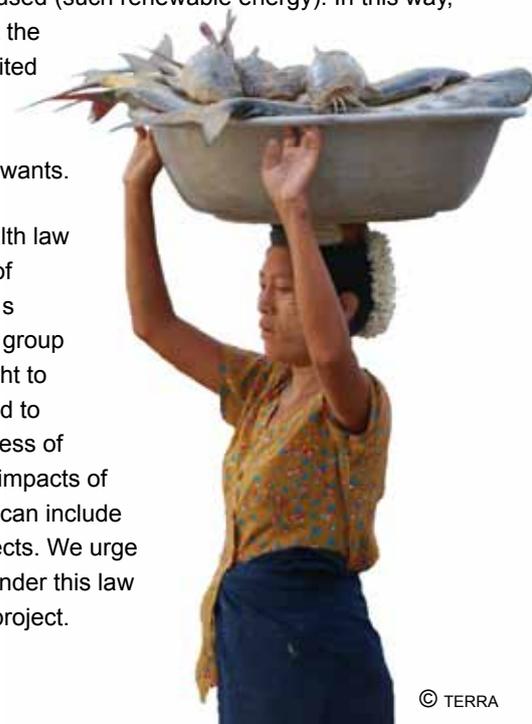
1. Those living in the area of the deep-sea port and industrial area, measuring 250 square kilometres, in total 3,977 households from 21 villages, a population of about 32,274 people.
2. Those to be evacuated from the area where a dam will be constructed to store water. About 1,000 people from five villages will be evacuated.
3. Those living along the road being constructed between the port and the Thai-Burma border. An estimated 1,500 people in five villages will have to be evacuated from the area.

However, it is certain that a far greater number of people, and a far wider area will be impacted by a project the size of the Dawei deep sea port and industrial estate. Only an SEA can identify the full scale of these impacts.

Carrying out an SEA will help to improve the master plan of the project, including the selection of sub-projects, so that it is best suited to the ecological and cultural resources of the area.

One very important aspect of any impact assessment, whether at the overall strategic level or at the project component level, is to consider alternative available options, from selection of the project site, to types of industries (such as the food industry), the choice of technology used (such renewable energy). In this way, it can be ensured that the assessment is not limited to what is in the master plan, i.e. what the project developer wants.

The Thai national health law provides one course of action. In Article 11, it states that a person or group of persons has the right to request and be entitled to participate in the process of evaluating the health impacts of public policies, which can include public plans and projects. We urge that action be taken under this law regarding the Dawei project.



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The Dawei project will adversely impact Myanmar's image when it takes the chair of ASEAN in 2014

The fact that Myanmar is a member of ASEAN and will take the chair of ASEAN in 2014, indicates that Myanmar accepts the guiding principles of ASEAN, including the principle that it should move "Towards a People-Centered ASEAN Community," and "Towards One Caring and Sharing Community." This means Myanmar must give the opportunity to local civil society to have genuine participation, and must also accept questions and criticisms from different sectors in the ASEAN region, including on impacts of trans-national investment projects on the environment and livelihoods. In the last four years, ASEAN civil society has been pushing for a "fourth pillar" of ASEAN, an environmental pillar. This issue was raised in the ASEAN People's Forum of 2012 in Cambodia in order to review projects that will cause cross-border environmental and social impacts.

If the decision-making process and the operations of the Dawei project proceed against the direction demanded by ASEAN civil society, the project will become a giant black mark for Myanmar and ASEAN. For a start, the process is not in accordance with ASEAN's existing Charter, which promotes sustainable development, protection of natural resources and environment, and people's participation. Even if there is not yet a Fourth Pillar, it

can be seen clearly that developing the Dawei project is not balancing with the 3 existing pillars of ASEAN, because the Dawei project is currently only proceeding according to the economic pillar. There has been no consideration of the unsustainability of the project, and how it will affect the other two pillars. According to the political and security pillar, the project should involve people's participation and good governance, and should ensure security of people's livelihoods and food security, which is a very important global issue today. Also, under the social and cultural pillar, people should be ensured good quality of life, and the local ecology and culture must be protected, so that local people can stay in their own areas, and do not have to migrate and face problems or become migrant workers in other countries. The Dawei project is now poised to destroy the health, quality of life, and community fabric of local people.

Unless these problems are addressed now, the Dawei project will be criticised continuously by civil society not only at the regional level but also at the international level, since the project developers are currently hoping that countries not only in ASEAN but further abroad will invest in the Dawei project. This will affect the image of Myanmar especially when it is the chair of ASEAN in 2014.

Dawei Deep Seaport & Industrial Estate Development Project



Dawei is located on the southern shoreline of Myanmar and around 350 kilometres west of Bangkok. The Government of Myanmar has granted the right to use designated area in Dawei to Italian-Thai Development Public Company Limited (ITD). And ITD has established Dawei Development Company Limited (DDC) to implement the Dawei Project in Myanmar.

The Dawei Project includes the development of the Dawei deep seaport, industrial estate, pipeline along the road-link to Thailand, highways and railroad to Thailand. Dawei Deep Sea Port and Industrial Estate will cover an area of 205 square kilometres or 50,675 acres which is 10 times of Map Ta Phut Industrial Estate in Rayong province, eastern Thailand.

Key Highlight of Main Infrastructure

Port & Heavy Industry

Steel Mill, Fertiliser, Coal Fired Power Plant (Proposal of 3,600 MW to sell to EGAT Thailand)

Hydro Power Plant

Tanintharyi Hydro Power Development up to 1,040 MW to serve the Dawei Industrial Estate

Water Supply System

Large raw water reservoir (400 million cu.m) for all-year round supply of fresh water

Oil and Gas Industry

Oil Refinery, Tank Farm, Gas Separation Plant, Combined Cycle Power Plant

Upstream and Downstream Petrochemical Complex

Upstream and Downstream Petrochemical Plants

Medium Industry

Manufacturing of Auto Tire, Paper, Gypsum, Rubber, Automotive Assembling Plant and Steel Fabrication Yard

Light Industry

Garment Factory, Cosmetic, Computer Parts, Food Processing Plant

Transborder Road Link

4-Lanes divided Highway with full access controlled + 8 Lanes in the future

Source: <http://www.daweidevelopment.com/index.php/en/dawei-project>

The Dawei Deep Seaport, Industrial Estate and Special Economic Zone Project

Healthy Public Policy Foundation

The analysis as in the document titled (in Thai) "Mong Hai Rop Dan Phan HIA Nai Karn Long Toon Kham Prom Daen Korraanee Suksa Tha Rau Nam Luk Lae Nikom Utsahakam Ta-wai Prathet Phama" (All-sided Consideration through HIA in Border-crossing Investment: A Case Study of the Dawei Deep Seaport and Special Economic Zone Project) by Decharut Sukkumnoed of the Healthy Public Policy Foundation estimates environmental impact in respective issues listed below. This is an approximate calculation through modeling of the rate of impacts in respective issues using the size of the geographical area, quantity of industrial activity and manufacturing technology standards adopted in Map Ta Phut Industrial Estate, Thailand's Rayong province, as baselines. The purpose (of this academic exercise) is to spark debates and point to the significance of serious undertaking of "strategic environmental study" prior to the impact assessment and development of any specific industrial projects as planned/proposed by the project developer.

Issues	Potential pollution effects	
	Per Day	Per Year
1. Air pollution		
1.1 Sulpher dioxide	1,213 tonne	442,563 tonne
1.2 Nitrogen oxide	970 tonne	354,050 tonne
1.3 Particulate matters	243 tonne	88,513 tonne
1.4 Greenhouse gas emissions (Only from 4,000 MW power plant) - Coal option - Natural gas option		30 million tonne 13 million tonne
2. Waste		
2.1 Industrial waste	2,074 tonne	756,959 tonne
2.2 Industrial hazardous waste	124 tonne	45,318 tonne
2.3 Municipal solid waste	277 tonne	101,258 tonne
3. Water pollution		
3.1 Water consumption	5.9 million m ³	2,150 million m ³
3.2 Waste water discharge	1.5 million m ³	550 million m ³

Source: Decharut Sukkumnoed, 2012

*Nubule Beach at dawn:
Local people of Bor Seik village close to the
industrial area have uncertain future following
the industrial estate development*

