

Corporate Social Responsibility Report

2014

EXPRESSWAY AUTHORITY OF THAILAND





“Excellent service, advance innovation and clear image”



Corporate Social Responsibility Report

2014

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of Expressway Authority
of Thailand's Board
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Message from the Chairman of Expressway Authority of Thailand's Board of Directors

The Expressway Authority of Thailand (EXAT) is determined to provide excellent services to its customers in any way to meet our core values which states **"excellent services, advance innovation and clear image"**. EXAT believes that in reaching the excellent service, we have a mission to seriously provide worthwhile transportation, continuously develop and be aware of environment.

EXAT has aimed to continuously improve our services to meet the users' satisfaction. One of the tasks is to make users more convenient. For example, the introduction of the electronic toll collection system or Easy Pass. This is to provide speedy uses, convenience and reduction of environment pollution. This is a part of our responsibility paying to the society considered as a CSR-in-process.

EXAT also welcomes any comments or suggestions on our services so that EXAT can gather all the problems towards the services for further improvement. For example, the suggestion to install more traffic signs and further studies on possible expansion areas to help easing traffic congestion. In addition, EXAT has considered building connection routes to expand the expressway to benefit the users under the concepts that it must not have any impact on the environment around the expressway. Besides, it has to be incorporated with the public sectors, to enhance the economy stability and provide happiness to our society.

Importantly, EXAT pays serious attention on society responsibility, that means our operations will consist of trustworthy, transparency, fairness and open for investigation. EXAT is happy to hear the comments from the users and / or people who get impact from our operations. We are happy to take those comments into consideration to improve communities quality of life.

As the Chairman of the Board of Directors, I strongly believe in EXAT as an entity that has a major role in supporting transportation and motivating our economy. Therefore, with the aim to provide excellent services, advance innovation, trustworthy and transparency of EXAT's executives and its staffs, EXAT will lead Thai society to sustainable growth and development.

Lieutenant General

(Vivat Suchart)

The Chairman of Expressway Authority of Thailand's Board of Directors



Message from the Governor of Expressway Authority of Thailand

In 2015, Thailand will officially join the ASEAN Economic Community (AEC). EXAT has formulated plans and policies to develop Thailand's infrastructure to meet both medium and long term growth. This will enable Thailand to accommodate transportation expansion which is not limited to Bangkok and suburban areas but extends to other parts of the country such as the Kathu-Patong expressway project in Phuket province. Also, additional studies have also been conducted on more expressway routes at places such as the Hat Yai-Sadao expressway project in Songkhla province, the Chiang Mai-Chiang Rai and the Mukdahan-Nakhon Ratchasima expressway project. EXAT also plans to build connecting routes to neighboring countries with the aim of developing transportation services to promote Thailand as a hub of this region in accordance with the company's vision of **"Choice of value, advanced development, and care for environment"**

During the past years, EXAT has been fully aware of the importance of providing fast, effective and convenient services. EXAT continues to develop its service quality according to international standards in parallel with creating and maintaining the right balance between social and environmental development.

EXAT has developed a Strategic Corporate Social Responsibility Master Plan (2011-2015) focusing on activities and **operations under a low carbon society (LCS)** placing special emphasis on the environment, such as adopting ISO 14001:2004 standard for EXAT environmental evaluation on the Chalong Rat expressway and Bang Na-At Narong, which was later awarded certification. Similar standards will be implemented for environmental management at other expressway areas. EXAT encourages the use of the automatic toll fee collection system to reduce energy consumption from fuel burn as a result of traffic congestion in toll gate areas, which is part of the company's CSR process to reduce environmental impact.

At every operational process, EXAT places special care on environmental impact with the aim of progressing while maintaining appropriate environmental conditions. Studies and work related to the development of areas under the expressway were carried out for the benefit of surrounding communities. Bike lanes were made available to promote cycling as a means of transportation, which in turn will help reduce traffic congestion and fuel consumption. Today, special bike lanes are available along the Si Rat expressways from Samakki Road to



Ngamwongwan Road. In the near future, more bike lanes will be arranged at Chalong Rat expressway from Rama IX to Ramintra road. Areas under the expressway are developed into communal sports grounds and public parks.

In communicating with stakeholders, EXAT publishes a Corporate Social Responsibility report in line with the Global Reporting Initiative (GRI) framework to disclose information on social, economic and environmental performance which is made available to the public. In two consecutive years, 2013 and 2014, EXAT received the Sustainable Report Awards by the Thailand Listed Companies Association. This illustrates the company's commitment and dedication to its CSR mission for future sustainability.

As the Governor of EXAT, I intend to ensure future growth and expansion of the company while focusing on its social and environmental responsibility to achieve future growth and development of Thailand and the Thai society.

Aiyarat Tinapai

(Mr. Aiyarat Tinapai)

The Governor of Expressway Authority of Thailand





01

Operations of Expressway Authority of Thailand



The Expressway Authority of Thailand (EXAT) was established following the Declaration of the Revolutionary Council issue no.290, dated November 27, 1972. Wholly owned by the Government, EXAT is a State Enterprise, initially operating under the supervision of the Ministry of Interior. Its main objectives are construction of expressways, to ensure that expressways are available, expressway maintenance, operating or supervising businesses related to mass transportation, and other expressway related businesses. EXAT must ensure a fast and convenient mass transportation system for the public. Also among its responsibilities is the provision of solutions to obstacles and problems related to transportation especially in Bangkok and suburban areas.

Following transformation of the government system through the Improvements Act 2002 announced on October 3, 2002, the management authority and power of EXAT was transferred to the Ministry of Transport according to the Improvements Act 2002, which took effect on October 9, 2002. The EXAT Royal Decree 2007 came into effect on January 9, 2008.

"Excellent service, visionary innovations, and flawless image"

have been the corporate values that the Expressway Authority of Thailand (EXAT) continues to follow alongside its commitment since its establishment to best serve the community. The key mission is to solve traffic problems and facilitate the traffic flow of Thailand's transportation network, helping to reduce economic loss and waste while enhancing national development. The Government has appointed a special working group to study the type of "expressway" to best promote Thailand's infrastructure as well as alleviate and solve traffic problems as a result of economic, social and population expansion.

EXAT is committed to its obligation to solve traffic problems in Bangkok and suburban areas with the aim of upgrading Thailand's transportation infrastructure and logistic systems. Plans are in place to expand this concept to other regions and ASEAN countries, which will strengthen Thailand's capability in providing fast and convenient transport services with maximum safety. This in turn will help ease traffic congestion. In the 2014 fiscal year, EXAT employed a total of 4,635 employees and 607 workers. There are altogether 8 main offices to provide services to its customers and the public, namely the Maintenance Center, Special Traffic Control Unit and Expressway System, Legal Office, Land Ownership Office, Head Office and Expressway Information Center. The Head Office is located at no. 2380 Phaholyothin Road, Sena Nikom, Chatuchak, Bangkok 10900; Tel: 02-579-5380-9, 02-562-0044, 02-940-1199.



Today, EXAT operates 7 expressways and 4 connecting routes totaling a distance of 207.9 km with 10 expressway projects planned for the future.

Table 1 Expressways in service, distance and the areas of route alignment

Expressways open for service	Distance (km)	Route
1. Chaloem Maha Nakhon Expressway (Expressway system stage 1) <ul style="list-style-type: none"> • Din Daeng-Tha Reua (8.9km) • Bang Na-Tha Reua (7.9km) • Daokanong-Tha Reua (10.3km) 	27.1	Bangkok
2. Si Rat Expressway (Expressway system stage 2) <ul style="list-style-type: none"> • Part A starting from Ratchadapisek passing Phayathai interchange to Rama 9 (12.4km) • Part B Main road with connecting route to Part A at Phayathai Interchange and connecting to Chaloem Maha Nakhon at Bang Khlo (9.4km) • Part C connecting to expressway Part A starting from Ratchadapisek to Chaengwattana (8.0km) • Part D Starting from Rama 9 Road to Sri Nakarin Road (8.6km) 	38.4	Bangkok
3. Chalong Rat Expressway (Expressway Ramintra—At Narong and Ramintra-Bangkok outer ring road) <ul style="list-style-type: none"> • Starting from Ramintra Road at 5.5 km point to At Narong with Pradit Manootham Road parallel on both sides from Ramintra to Ekamai (18.7km) • The beginning of the expressway connects to Chalong Rat at Ramintra to North west until the Bangkok outer ring road (9.5km) 	28.2	Bangkok
4. Udon Ratthaya Expressway (Bang Na-Chonburi) <ul style="list-style-type: none"> • 1st Phase from Changwatana-Chiang Rak and connecting to the road leading to Thammasart Rangsit (22km) • 2nd Phase Chiang Rak-Bang Sai (10km) 	32.0	Bangkok/ Pathumthani










Table 1 Expressways already open for service, distance and service area (continued)

Expressways open for service	Distance (km)	Route
5. Burapha Withi Expressway (Bang Na-Chonburi) Starting at Bang Na-Trad (km2+500) to Chonburi (55km+350) (55km).	55.0	Bangkok/ Chachoengsao/ Samutprakan
6. Bang Na-At Narong Beginning at the end of Chalong Rat overlapping with Chaloem Maha Nakhon from At Narong interchange, connecting to Burapha Withi (4.7km).	4.7	Bangkok
7. Kanchanaphisek Expressway (Bang Phli- Suksawat) Connecting to the south side of the motorway of Kanchanaphisek ring road at Rama 2-Suksawat, starting from Suksawat Road at Phra Pra-daeng across the Chao Phraya River to the east, passing Sukhumvit Road, Sri Nakarin and Theparak and joining motorway no. 34 (Bang Na-Bang Pakong) at Bang Phli (22.5km).	22.5	Samut Prakan

Table 2 Extension services and the areas of route alignment

Extension Services	Route
1. Interchange south of Suvarnabhumi Airport connecting Burapha Withi (additional entry-exit ways of Burapha Withi Expressway in support of Suvarnabhumi Airport operations).	Samut Prakan
2. Connecting route to Kanchanaphisek (Bang Phli-Suksawat) and Burapha Withi Expressway (additional entry-exit at Burapha Withi to promote travel between Burapha Withi and Kanchanaphisek (Bang Phli-Suksawat).	Samut Prakan
3. Connecting route at Kanchanaphisek (Bang Phli-Suksawat) and industrial ring road (connecting route Chalermraj Damri 84) to complete traffic network south of Bangkok.	Samut Prakan
4. Connecting route of Si Rat Expressway Zone D (Asoke-Sri Nakarin) and Chaturatis 61 Part Kor. for onward travel to Chalongsat, Suvarnabhumi Airport and inter city highways no.7 (motorway).	Bangkok

Table 3 Future expressway projects

Expressway project	Distance (km)	Project commences/ during study Expressway Model scheme	Under study to determine engineering, economic and financial viability as well as environmental impact	Under EIA consideration	Under construction	Ready for service
1. Si Rat-Bangkok outer ring road	16.7					Year 2016
2. Rama III-Dao Kanong-Bangkok outer ring road on western side	16.923					
3. Expressway system stage 3/ Northern line part N1 N2 N3 and East-West Corridor*	42.3					
4. Kathu-Patong, Phuket	3.98					
5. Burapha Withi-Pattaya, Chonburi	68					
6. Udon Rattaya-Ayuthaya	42					
7. Chalong Rat-Nakhon Nayok-Saraburi	102					
8. Expressway project in Chiang Mai	-					
9. Expressway project in Khon Kaen	-					
10. Improvement project for entry-exit ways Chaloem Maha Nakhon and the old railway road at At Narong interchange (At Narong 3)						Oct 8, 2014

Remarks *Potential Expressway project to accommodate the joining of AEC

Operational Highlights in Fiscal Year 2014

Highlights	Details
<ul style="list-style-type: none"> Si Rat Expressway project zone D (Asoke- Sinakarin) and Chaturathit part Kor 	To solve traffic problems and serve the public using Jaturatis Road traveling from Victory Monument, Sri Ayuthaya, Ratcha Prarop, Petchburi and Din Daeng to access Chalong Rat Expressway, Suvarnabhumi Airport and motorway.
<ul style="list-style-type: none"> Si Rat-Bangkok outer ring road expressway project 	A 6-lane Interchange which starts at Kanchanapisek Road with construction parallel to the southern railway line on its northern side, ending at Bang Sue.
<ul style="list-style-type: none"> Udon Ratthaya-Ayuthaya expressway project 	Plans are in place to expand Udon Ratthaya Expressway to connect with motorway 32 at Ampur Bang Pahan with connection to Silpacheep Bangsai Center in Ayuthaya, for a total distance of 38km. Currently, the project is under study for engineering, economic and financial viability as well as environmental impact.
<ul style="list-style-type: none"> Traffic Report System development project via mobile application smart phone (EXAT ITS) 	Complete delivery of computer server with software available to provide real-time reports of expressway traffic situations via Smart phone (EXAT ITS).
<ul style="list-style-type: none"> Fire Emergency assistance on Kanchanapisek Expressway 	EXAT officers provided prompt emergency assistance when a large container truck caught fire while traveling on Kanchanapisek Expressway (Bang Pli-Suksvasti). As a result of fast and effective service, there were no reports of death or injuries while traffic was well managed and traffic was cleared in a short time.
<ul style="list-style-type: none"> Development of bike lane network in expressways area 	Studies are being carried out to determine engineering, economic, and financial viability in order to come up with a blue print of road network development for bikes on expressways. EXAT sees that a number of expressways pass through the metropolitan area and link it to the suburban areas.

02



Corporate Direction and Social Responsibilities of the Expressway Authority of Thailand



EXAT's mission, vision, and responsibility regarding society and environment weighs significantly in its consideration of the impact from operations including the periods prior to, during, and after the construction. EXAT places emphasis on encouraging its employees to pay serious attention to the environment and the communities surrounding the expressway on which direct impact falls.

EXAT's policy and management of environment correspond with the scope established in the environment manual of ISO 14001: 2004. The company receives engagement from its employees, related persons, and the public. Moreover, EXAT has a continuous and systematic improvement of operations as well as control of their impact in order to effect sustainable transportation development.

Operational directions according to the Corporate Plan for the Fiscal Year 2012–2016 and the Action Plan for the Fiscal Year 2014 have established EXAT's vision, which draws future of EXAT. At present, EXAT has its operational directions as follows:



2.1 Direction

EXAT's direction is to achieve its vision of becoming a choice of value, promising advanced development and care for environment.



2.2 Vision

Choice of value, advanced development, and care for environment



2.3 Mission

- To provide/develop/improve the expressways in line with the standard and safety.
- To provide innovative and value-added services.
- Manage assets with proficiency to enhance potentials of expressway business and benefits for society.
- To develop administrative management and investment systems to increase value for the organization.



2.4 Corporate Goal

- The expressways and assets are exercised to their full capacity.
- The services have quality, safety, and are trusted by the people.
- The business performances grow with stability and yield appropriate profits.

2.5 Value

Excellent service, visionary innovations, and flawless image

2.6 Strategic Issues



1st Strategy

Develop the business and services to contribute to efficient utilization of resources in order to yield revenues, enhance services, and solve traffic problems.



2nd Strategy

Increase efficiency in maintenance, as well as safety and environment quality control to reduce loss and deliver better quality of life for customers, the public, and society.



3rd Strategy

Improve corporate administration and governance to raise efficiency and productivity of the systems and create business advantage, as well as enhance potentials and quality of life of the personnel.



4th Strategy

Create specialized knowledge and innovations.

EXAT is a state enterprise established to responsible for the country's transportation and traffic facilitation with expressway and its service in order to support social and economic expansion.

Over 40 years on duty, all EXAT staffs are aware that solving and facilitating traffic are one of responsibilities that needed to contribute to Thai society and that could bring prosperity to economy. Development of each expressway route could create magnificent value to economic and social development. Cares on every process of operations that holds people and national benefit as importance cause EXAT to be a long-running corporate until now.

EXAT's operation runs in a way that enhances the country's infrastructure which relates with many groups of stakeholders. Each operational site may affect its surrounding areas. Therefore, EXAT need to importantly focus on possible advantage, positive and negative impact to local communities, surrounding environment and society in every process, from the pre-construction period, construction period, and post-construction period.

Response to stakeholder expectation and management of various impacts need to be done with obvious strategic direction. Hence, the 5-year Strategic Corporate Social Responsibility Master Plan for the Fiscal Year 2011-2015 was established to frame up EXAT's CSR operational practices and management and reflect the true attention of the corporate on resolution standing point for Thai society.

2.7 CSR Vision and Strategy

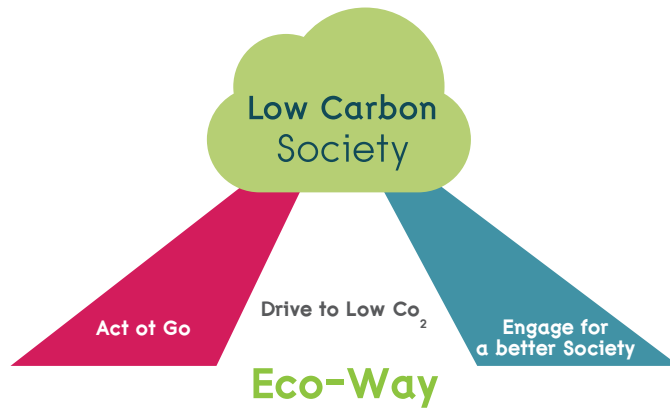
EXAT society is a Low Carbon Society: LCS



Figure 1 Meaning of EXAT's CSR Vision

EXAT's vision of creating low carbon society conforms to social and environmental responsibility trends at present. People in society are now being awakened on climate change and of which carbon dioxide is a great contributing factor resulting in global warming.

EXAT has initiated and attempted to create an active society in reducing carbon dioxide emission and focusing environmental aspects, especially in climate change concern and increasing of GHG emission. These issues are top sustainability aspects that organizations worldwide are all placing their importance on. To handle this, EXAT has its responsible plan under the Low Carbon Society strategy.



Reference : Strategic Corporate Social Responsibility Master Plan for the fiscal year 2011–2015

Figure 2 Eco-Way to Low Carbon Society Model

2.8 The Responsibility Plans under Low Carbon Society Strategy

The Low Carbon Society strategy was determined under EXAT's CSR vision, fiscal year 2011–2015, and has its pathway to low carbon society called **"Eco-Ways to Low Carbon Society"**

Table 4 Plans and details under the Low Carbon Society strategy

Plans	Details
1. Social Responsibility Management Plan from Internal Development (Act to Go)	Internal development within the organization to contribute to efficient and productive operations on social and environmental responsibility, with sound management structure, provision of knowledge to create social and environmental innovations, increase employee engagement, and lead to organization-wide integration of social responsibility.
2. Social and Environmental Activity Development Plan for Low Carbon Society (Drive to Low CO ₂)	Determination of clear directions and processes of operations on social and environmental responsibility, with consideration to conformity to the organization's core strategies, laws, morality, and international standards and sustainable creation of value for important stakeholders.
3. Stakeholder Engagement Plan for Mutual Social Responsibility (Engage for a Better Society)	Emphasis on both internal and external stakeholders by inducing awareness, understanding, and realization of the organization's social responsibility for stakeholders, leading to engagement in value creation for the organization, society and environment.



03

Stakeholder Engagement



EXAT fully realizes the importance of every group of stakeholders that are related to its operations both internally and externally. It has continued to place special emphasis on organizational development and improvement in response to stakeholders' expectations. Stakeholder Engagement Standard has been implemented which enabled EXAT to analyze key stakeholders and EXAT performance. The results were used to establish an operational framework and directions as well as guidelines and social responsibility practice at every contact point both within and outside the organization. EXAT stakeholders are classified into seven major groups as follows:



Figure 3 EXAT Stakeholders arranged in order of importance.

EXAT realizes that working in close cooperation with stakeholders is at the helm of success in its corporate social responsibility, driving sustainable growth of society. Therefore, well-defined communication channels between EXAT and stakeholders have been established as a tool to further develop its operations and achieve its social contribution objectives.







Communication channels with stakeholders

EXAT established distinct communication channels with stakeholders that reflect its commitment to seriously taking into consideration stakeholders' evaluation and consideration of EXAT performance. Providing appropriate, correct, reliable and timely information also echoes organizational transparency. EXAT has the responsibility to communicate and, at the same time justify information input, which plays an important part in the decision making by its management.






The Information Act 1997 and Government Confidentiality regulations 2001 state **"Disclosure of information is the key, covering up information is an exemption"**. At EXAT, there are two main functions responsible for handling organization information. The Information Department Office of the Governor is responsible for handling complaints from stakeholders. The Public Relations Department Office of the Governor is responsible for Public Relations and building good organization image by distributing information and news releases to the public and stakeholders. These two departments play an important role in creating better understanding of and supporting EXAT operations. In addition, EXAT appointed the "EXAT Information Committee" to oversee the organization operations at policy-making level.

EXAT has developed communication channels for stakeholders both within and outside the organization including general channels which are accessible by all, and special channels only for internal use, as follows:

1) General channels

-  24-hour EXAT Call Center 1543
-  24-hour Website www.exat.co.th
-  One Stop Service Center
-  Other Public Relations channels namely radio, television, telephone, e-mail, facsimile, newspaper, exhibition, annual report, Royal Thai Government Gazette, EXAT magazine
-  Intelligent Traffic Systems (ITS) which includes schematic map, smart VMS, Mobile application EXAT ITS
-  On-line channel includes Facebook and Twitter

2) Special channels within the organization

-  Intranet
-  EXAT Sound
-  LCD EXAT, Digital signage
-  Multi-Touch System (I-Touch)
-  Other public relations tools including e-mail, telephone, facsimile, newsletter PR Board and EXAT Home magazine

EXAT Public Information Center was established to provide information for the public, including legal information, in a systematic manner with strong commitment to information disclosure and operational transparency.

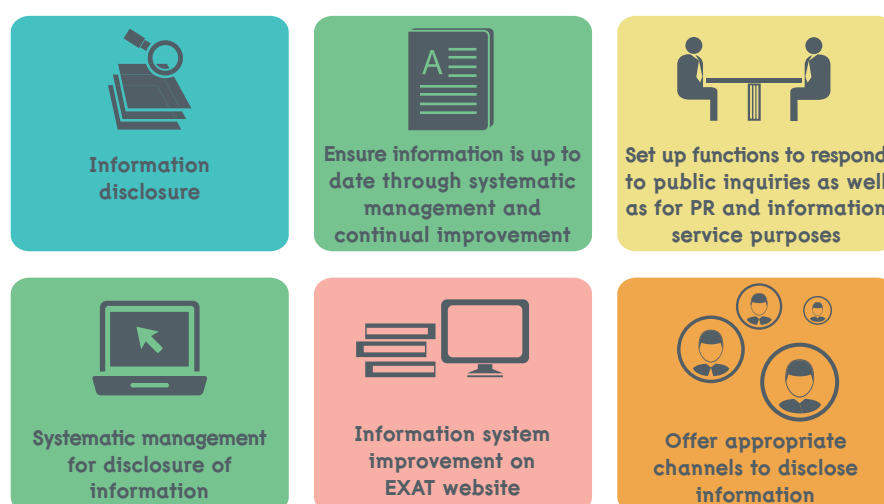


Figure 4 Practices in disclosing information and operational transparency.

Through continual improvement of communication channels for views and feedback from stakeholders, EXAT is able to learn more about public opinion, expectations and concerns. Therefore guideline practices were established in order to collect information on stakeholder needs, enabling EXAT to respond accurately and appropriately to their needs. The results from this communication can be summarized as follows:

Table 5 The results from communication with stakeholders



Stakeholders	Practices	Views, expectations and concerns	Channels and frequency of communications
<p>Expressway Users</p> 	<p>Serve customers with care, reliability and transparency. Provide responsible and high quality service standards while paying special attention to the surrounding areas. Strictly follow conditions of agreement established with customers and listen to their complaints, as well as provide suitable channels for customers to state their views.</p>	<ul style="list-style-type: none"> Reliable organization, provide prompt assistance and take responsibility for our society. Improve Easy Pass service. Develop better traffic flow, especially at entry and exit ways and junctions. Organize suitable employee training to enhance service efficiency. 	<ul style="list-style-type: none"> A satisfaction survey among customers on EXAT services and image in fiscal year 2014. 141,815* calls to EXAT Call Center 1543. 2 satisfaction surveys after receiving emergency assistance service. 12 satisfaction surveys on EXAT one stop service. 2 satisfaction surveys on EXAT Call Center. 2 activities to strengthen relationship with customers and contractors. 2 safety-related campaigns.
<p>Government sector as the owner</p> 	<p>Carry out duties with honesty and transparency, taking into consideration benefit to the public and the government.</p>	<ul style="list-style-type: none"> Carry out duties with honesty, transparency for the common benefit of the public. Develop customer feedback service. Readiness in case of emergency. Consider possible expressway construction in other provinces to help alleviate traffic congestion. Develop logistics infrastructure and mass transportation to create network connection and enhance Thailand's competitiveness. Provide a high standard of service. Promote the role of the private sector in developing special network. Create added value from existing assets to generate suitable financial returns. Debt management plan. 	<ul style="list-style-type: none"> 28 meetings with the Ministry of Transport. 22 meetings with the State Enterprise Policy Office (SEPO). 42 meetings with the Office of Transport and Traffic Policy and Planning. 4 meetings with Office of the National Economic and Social Development Board (NESDB).

Table 5 The results from communication with stakeholders (cont.)






Stakeholders	Practices	Views, expectations and concerns	Channels and frequency of communications
<p>Employees</p> 	<p>Fair and equal treatment of EXAT officers in terms of career opportunities, rewards, self-development, welfare, safety at work and participation.</p>	<ul style="list-style-type: none"> • Loyalty to the organization, determination to create good work quality for organizational development. • Equal treatment, freedom of expression and decision, and create unity. • Being accepted at ASEAN and international level. • Arrange housing located nearby. 	<ul style="list-style-type: none"> • 2 State Enterprise Plan Working Group Committee meetings. • 7 Good Governance Subcommittee meetings. • An Employee and Organization relationship survey. • An Employee and Organization satisfaction survey. • 3 interviews with the Board of Directors, Governor and Deputy Governor (part of CSR Report). • A Good Governance Subcommittee meeting (part of CSR report). • 2 meetings of Management at Department level (Part of CSR Report).
<p>Those affected by land expropriation</p> 	<p>Handle those affected by land expropriation as a result of expressway construction by hearing how the construction impacts their daily lives so that suitable remedial measures can be determined to minimize the impact.</p>	<ul style="list-style-type: none"> • Consider appraised price fairly. • Build correct understanding to reduce conflict between the organization and affected people. 	<ul style="list-style-type: none"> • 4 public hearings were arranged on studies to determine engineering, financial, and economic viability as well as possible environmental impact for Burapawithee Expressway. • 3 public hearings were arranged on studies to determine engineering, financial, and economic viability as well as possible environmental impact for Udonrattaya Expressway. • 2 seminars organized to gain public participation in studies to determine engineering, financial, and economic viability as well as possible environmental impact, and design of expressway project on the route Katoo-Patong in Phuket.

Table 5 The results from communication with stakeholders (cont.)

Stakeholders	Practices	Views, expectations and concerns	Channels and frequency of communications
Partners 	Fair practice for business partners (concessionaires, suppliers) without any prejudice. Respect and follow contract requirements and conditions.	<ul style="list-style-type: none"> Improve basic communications related to procurement process and contracts to enhance efficiency and flexibility which will result in a more effective planning. 	<ul style="list-style-type: none"> 12 meetings on Safety and Hygiene to create better understanding and determine operational guidelines for concessionaires to supervise their work on a monthly basis.
Surrounding Community 	Care for the surrounding community and encourage participation, awareness of possible impact, be responsive to needs and encourage participation in developing greater welfare and safety of the community.	<ul style="list-style-type: none"> Educate and enhance understanding of community living around the expressway area. Allocate unused area from land expropriation to be used for the benefit of the community. Prevent possible environmental impact in response to changes. 	<ul style="list-style-type: none"> Regularly visit and talk with people living around the expressway area. Form a close coordination with community leaders by organizing both official and unofficial meetings on a monthly basis.
Society 	Social recognition and care. Prompt response to impact. Listen to the people's views and care for the people. Offer creativity to move towards sustainable development.	<ul style="list-style-type: none"> Develop welfare and improve standard of living. Take part in sustainable community development with goal to become more self-sufficient. Support more social activities. Officers to perform with greater efficiency. Impact as a result of construction. Impact as a result of land disputes. Difficulties in the use of expressway. 	<ul style="list-style-type: none"> 141,815 calls at EXAT Call Center*. 3 Road Shows event.

References :

- EXAT. "Corporate Governance Manual", 2014, page 27
EXAT. "Final report on EXAT Employee Relations Survey project, fiscal year 2014", 2014
EXAT. "Final report on EXAT Employee Satisfaction Survey project, fiscal year 2014", 2014
EXAT. "Expressway User Satisfaction Survey on Service and Image of EXAT Report, fiscal year 2014"
SEPO, Ministry of Finance. "Statement of Directions : SOD", 2012
* EXAT Call Center 1543 provides information service and traffic report as well as being an opened channel for expressway users and the general public to proceed on any complaints, feedbacks and suggestions. Furthermore, EXAT has employed Advance Solution and Technology Company Limited to set up EXAT Call Center system hardware and install application software. The system was completed and fully operated for expressways users on July 2, 2014 (data gathered from July 2 — September 30, 2014).



04

Reporting Guidelines



This EXAT CSR Report covers the period October 1, 2013 to September 30, 2014. The report is published to describe the management guidelines and operational performance related to CSR, which include social, economic and environmental dimensions applied throughout the organization. The report also discloses other necessary information leading to sustainable development based on the Global Reporting Initiative (GRI) framework issue G3.1.

This report is considered to be one of EXAT's intermediate channels to communicate with every group of EXAT stakeholders. It enables them to be kept up to date with EXAT's directions and performance, enhance understanding among stakeholders and encourage their participation. Disclosure of information in the report reflects the organization's transparency and also acts as a public relations tool by distributing information to the public and stakeholders. EXAT has been publishing the CSR Report for 3 consecutive years, and aimed for publishing and distributing the report together with the organization's annual report every years.

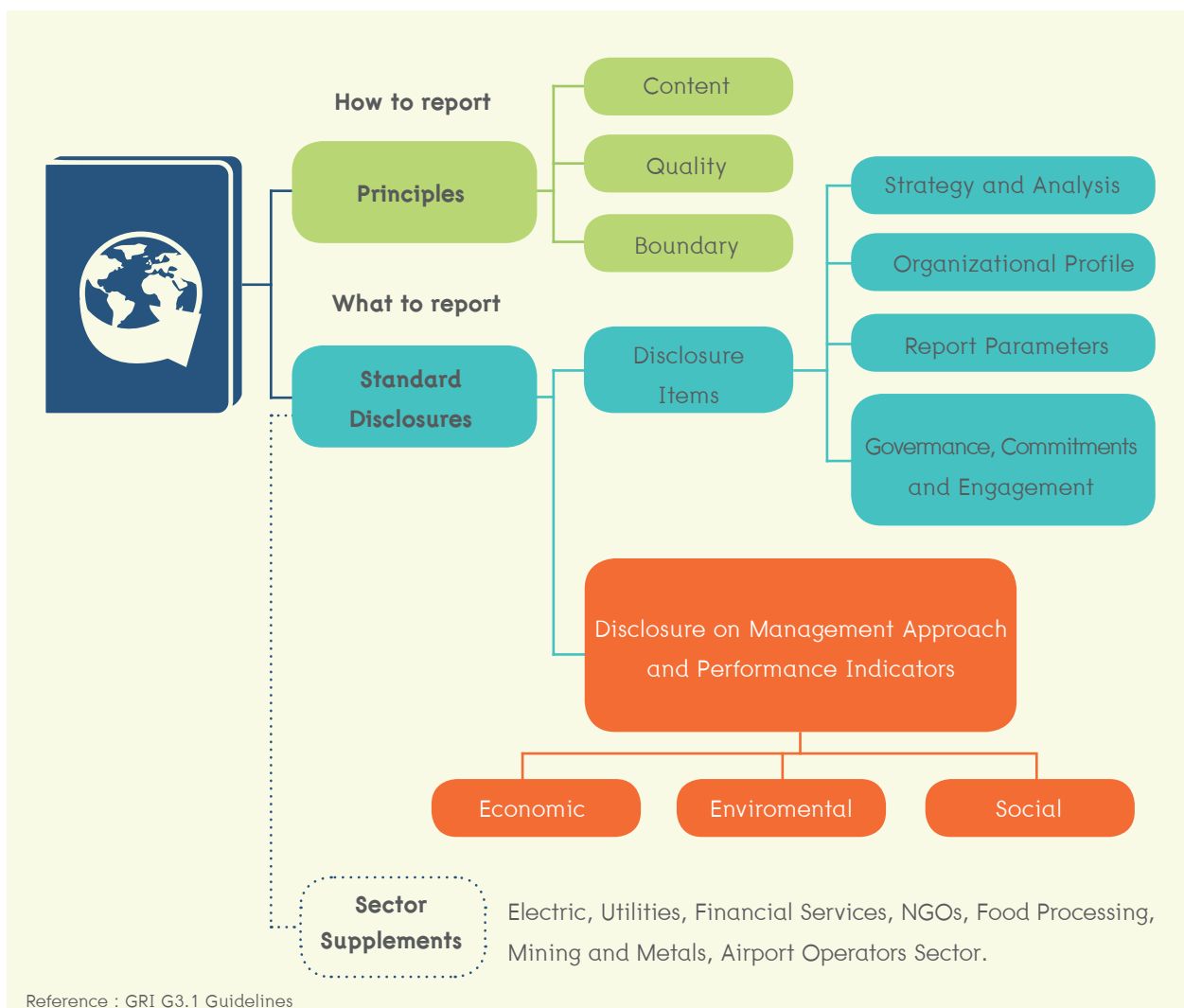


Figure 5 The Global Reporting Initiative G3.1 Reporting Framework.

EXAT follows a reporting process in five phases, as recommended by the GRI, in arranging suitable information for stakeholders. This includes GRI Application Level Check to ensure its reliability in disclosing information on the organization's performance. The procedures are as follows:



Figure 6 5 Phase of Reporting process in which EXAT Implemented

For the first phase, EXAT top executives comprising members of the Good Governance Subcommittee and personnel at Departmental level provided guidelines for preparing the annual report 2014 to the Working Group. Then the information from engagement with every group of stakeholders throughout the fiscal year 2014 was collected, which included their concerns and expectations obtained via various communication channels as well as discussions held between stakeholders within the organization. The data was then analyzed for report publication.

Seven workshops were organized in order to determine the objectives and content of the report. The meetings were attended by the management and staff at Director, Division and Chief level from every function to provide relevant and significant information of the organization. The information is necessary to determine material aspects of the report. The Committee considers the aspect element and performance indicators via materiality test in accordance with the GRI framework.



Figure 7 Reporting Content Identification Workshop

To further enhance the materiality test, the results were validated by managerial employees at Director level from every function in order to ensure that the content genuinely reflects the organization's CSR practices. The results can be summarized as follows:

Influence on Stakeholder Assessment and Decision	High		<ul style="list-style-type: none"> • Freedom of Association and Collective Bargaining • 	<ul style="list-style-type: none"> • Health and Safety of Expressway Users • Product and Service Information • Occupational Health and Safety • Legal Compliance • Environmentally Friendly Products and Services • Anti-Corruption • Indirect Economic Impact (Infrastructure) • Economic Performance • Training and Education • Communities Surrounding the Expressway •
	Medium		<ul style="list-style-type: none"> • Biodiversity • Human Rights • Privacy of Easy Pass Users • Emission, Effluence and waste • Energy • Marketing Communications • Materials • Public Policy • Employment • Diversity and Equal Opportunity • 	<ul style="list-style-type: none"> • Labor/Management Relations •
	Low	<ul style="list-style-type: none"> • Equal Remuneration between Women and Men • Water • Market Presence • 		
		Low	Medium	High
Significance of EXAT's Economic, Environmental and Social Impacts				

Figure 8 EXAT's Material Aspects

EXAT material aspects are significant as they have economic, environmental and social impact and also influence stakeholders' evaluation and decisions. EXAT divided and ranked these aspects according to their importance ranging from the highest to lowest including the economic, environmental and social performance in accordance with GRI framework.

The intensity of data collection methodology is in accordance with EXAT Material Aspect. The process of information monitoring and summarizing begins with each responsible department being required to collect related information and centrally gathered by EXAT working group from the Society and Community Promotion Unit, Public Relations Division, Office of the Governor. The working group would coordinate each process and collate the information for future distribution to the public.

As for the details of each performance indicator, an explanation is available in the index in accordance with the requirements of the GRI framework printed at the end of the report. This year, EXAT plans to increase communication channels to obtain the views of its stakeholders. Therefore an opinion survey is enclosed at the end of the report to collect views and suggestions from stakeholders as well as other readers.

Report Distribution Channels

- 1) EXAT Website www.exat.co.th
- 2) 400 copies of the report in Thai language and 100 copies in English
- 3) 50 copies on CD-Rom

Readers are encouraged to provide suggestions and recommendations in the Opinion Survey which is provided at the back of this report. For more information please contact:

Corporate Social Responsibility Section

Public Relations Division, Office of the Governor
Expressway Authority of Thailand
Tel. 0-2579-5380-9 ext. 2325-8





05

Management Structure and Good Corporate Governance



EXAT is a state enterprise under the Ministry of Transport, operating under the supervision of the Ministry of Finance, with the State Enterprise Policy Office (SEPO) serving as the main organization that oversees EXAT's corporate governance and promotes its good management systems and competitive capacity so that it can serve as a mechanism that propels the country's economic and social strategies on the basis of efficient operation and in compliance with good corporate governance.



Figure 9 Good Corporate Governance of EXAT

The good corporate governance mechanism illustrates EXAT operations in formulating its vision, goals, and corporate strategies, all of which are conducted under the principle and guidelines of good corporate governance to lead to the six aspects of EXAT operations to create confidence in all stakeholder groups that EXAT operations strictly adhere to good corporate governance and correspond with the organization's control and management both at present and in the future.

EXAT has put SEPO's Principles and Guidelines on Good Governance of State Enterprises year 2009 as its policy into practice for its activities, projects, and plans so as to achieve its chief goal, which is to alleviate traffic congestion in the Bangkok Metropolitan area in order to reduce national economic losses, as well as to strive towards sustainable financial stability and growth. Therefore, to ensure its efficient operations, good corporate governance, excellent management, and its ability to offer convenient, rapid, and safe expressways, as well as transparency and accountability, the EXAT Board of Directors, executives, employees, and workers are prescribed to adhere to "**seven international standards in good governance**" as follows:



5.1 EXAT organizational structure

The EXAT Board of Directors holds the highest authority in the organization and has the duty to supervise the direction and every aspect of administration, encompassing the management of the economic, environmental, and social performance, as well as opportunities and related potential risks. The EXAT management structure comprises committees and other sub-committees appointed to achieve goals in specific aspects, as demonstrated in the EXAT committee structure as follows:

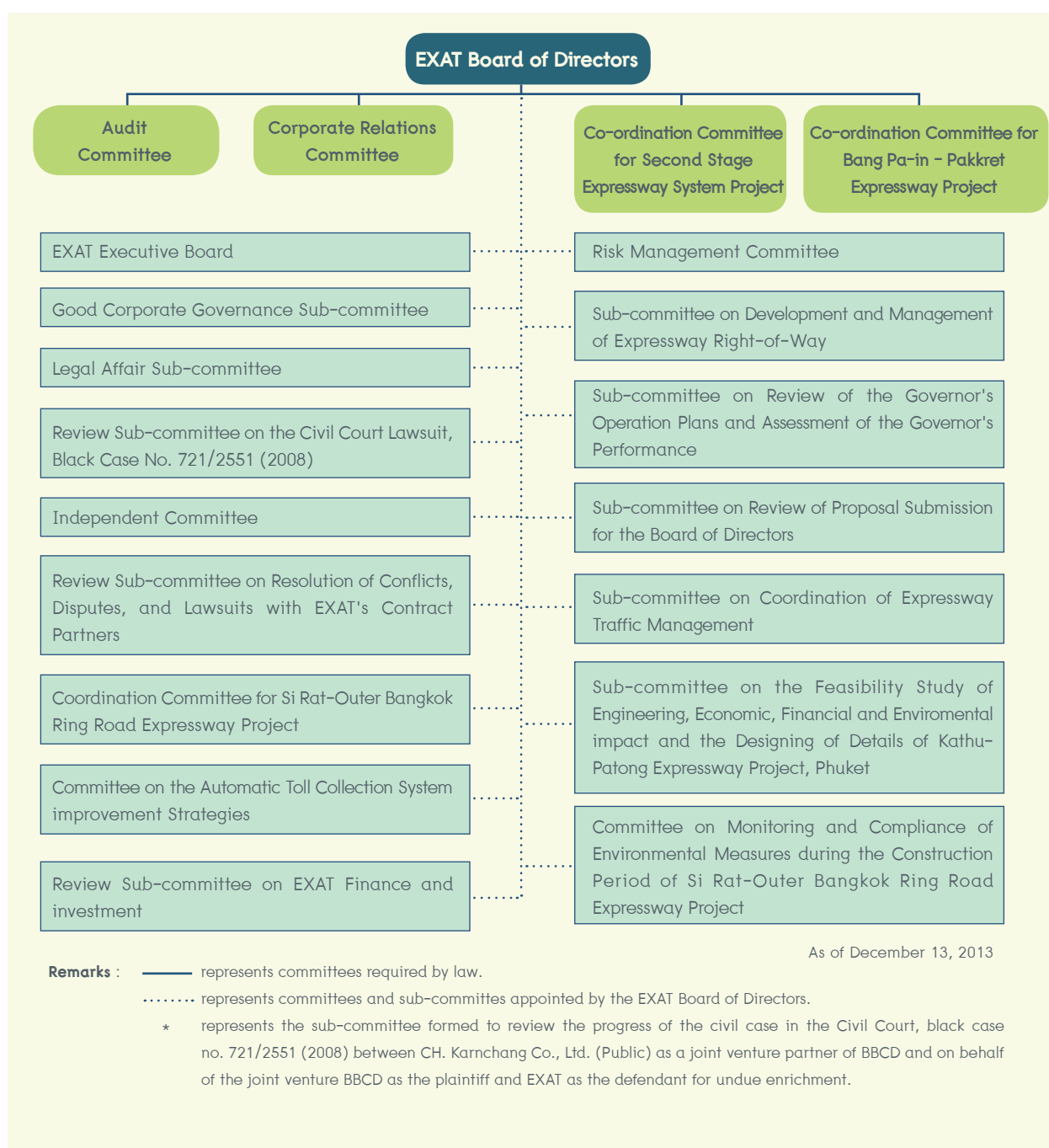
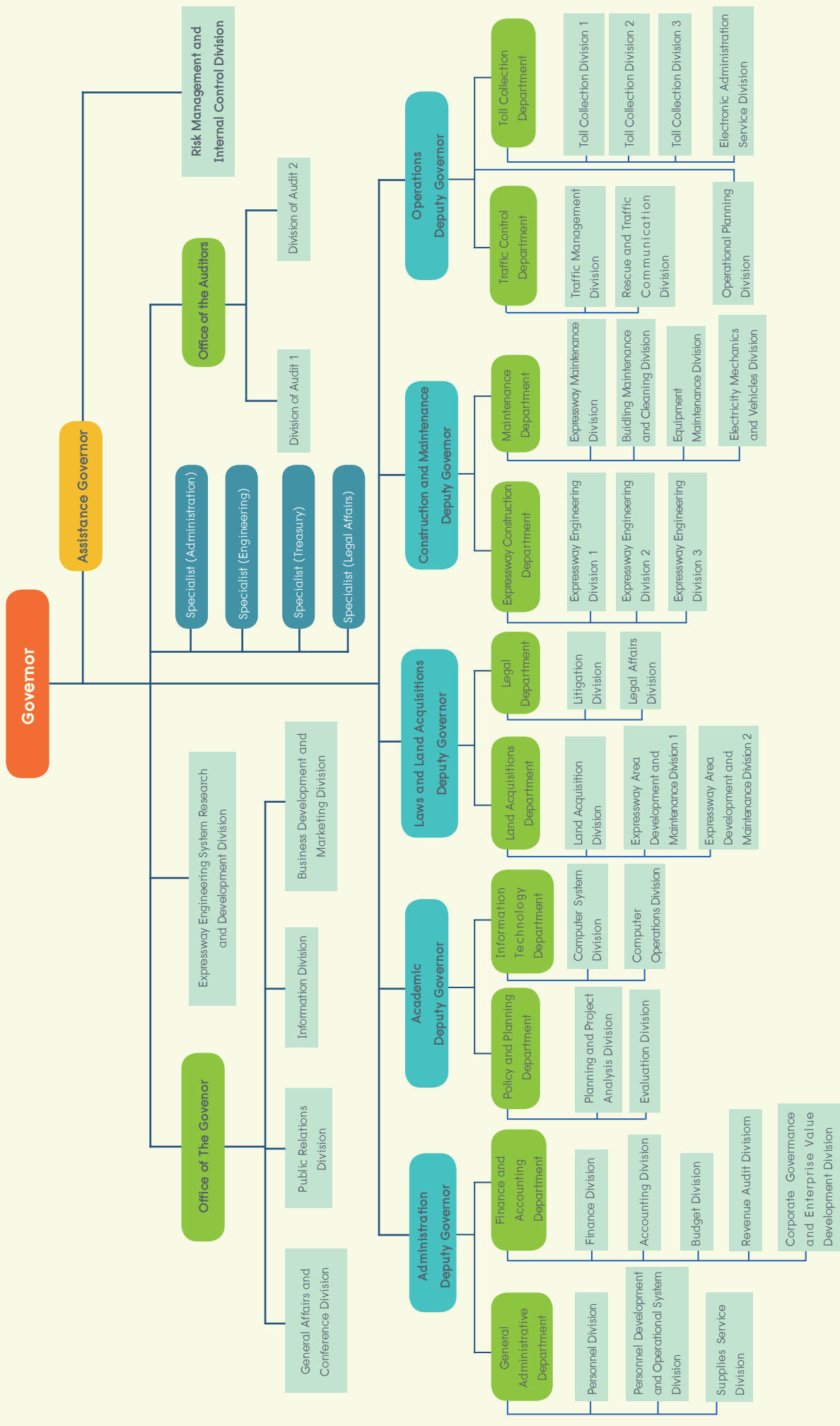


Figure 10 EXAT Committee structure

The EXAT Board of Directors is entrusted with a clear role and responsibility and is guided by good corporate governance to create confidence and trust from the government and public sectors. Its commitment to excellent management is reflected in its compiling of regulations related to committees, executives, employees, and workers to adhere to. In the fiscal year 2011, the Corporate Governance and Enterprise Value Development Division under the Finance and Accounting Department were responsible for compiling the EXAT Corporate Governance Manual, which is reviewed on a yearly basis.

5.2 EXAT organizational structure

Operations based on good corporate governance require a clear responsibility structure. EXAT has therefore restructured the organization in accordance with the EXAT Decree No. 110/2555 (2012) dated March 23, 2012. The management structure is composed of the positions of Governor, Deputy Governor, Assistant Governor, Specialists, Departments/Offices, and Divisions, as presented below.



Reference: Expressway Authority of Thailand (2012) EXAT Directive No. 110/2555 (2012) dated 23 March 2012.

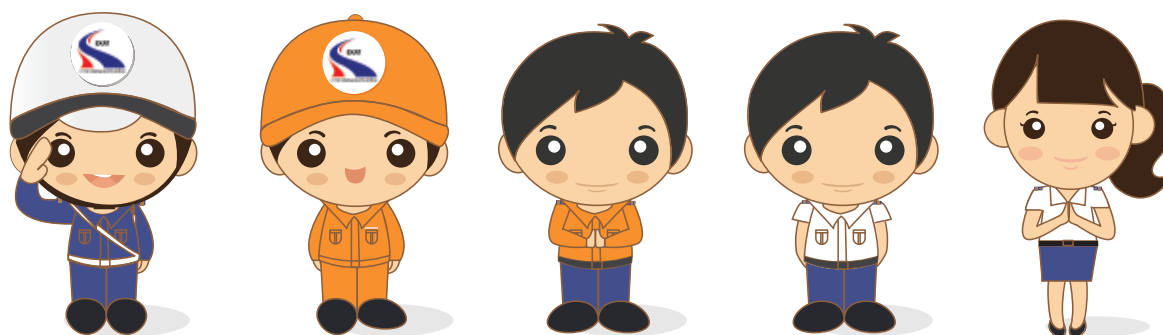
Figure 11 EXAT organizational structure

5.3 Composition and Qualifications of the EXAT Board of Directors

1) The appointment procedure of the EXAT Board of Directors conforms to Section 14, Section 15, Section 16, and Section 17 of the Expressway Authority of Thailand Act, B.E. 2550 (2007). The Board consists of the Chairperson, a representative of the Ministry of Finance, a representative of the Ministry of Transport, a representative of the Bureau of the Budget, a representative of the Office of the National Economic and Social Development Board, a representative of the Royal Thai Police, and no more than four qualified persons as members. The Governor is a member and a secretary of the Board¹.

2) The Cabinet appoints the Chairperson and luminaries committee members. The Chairperson and luminaries committee members shall not be EXAT officials or employees, holders of political positions, nor be stakeholders in any contract signed with EXAT. These restrictions exist in an effort to avoid the risk of conflicts of interest. Additionally, the Chairman, the qualified members of the Board, and the Governor must be knowledgeable and possess expertise in administration in the fields of science, engineering, architecture, urban planning, economics, public finance, or laws, in order to ensure efficient and effective operation of EXAT².

3) In the fiscal year 2014, the EXAT Board of Directors was composed of 14 members. The terms lasted from October 2013 to September 2014 for nine members and from July 2014 to September 2014 for the other five members, two of which were independent members of the Board. The Board of Directors was composed to 12 male members and 2 female members (equivalent to 84.62 percent and 15.38 percent respectively). Two of its members were in the age range of 30–50 years old (equivalent to 14.29 percent) and the other 12 members fell in the age range over 50 years old (equivalent to 85.17 percent). All of the Board members were Thai nationals.



¹ The Governor shall not be the Chairman of the Board.

² At the meeting No. 8/2546 (2003) held on July 30, 2003, the Board of EXAT had a motion approving the definition of the term "independence" of the members of the EXAT Board of Directors. "Independence" of the EXAT Board members is synonymous with external independence such as qualified members from the private sector, independent agencies or educational institutes with freedom to use discretion in making decisions and operating with genuine independence to effect changes and restraints in operations when needed, and with no business relationships or expectations of benefits or any other relationships with executives of state enterprises under the same Ministry, related divisions or companies, as well as no direct or indirect interests in EXAT.

The Exat Board Of Directors



**Air chief Marshal
Sumet Photmanee**
Chairman

(July 2, 2013-April 5, 2014)



**General
Patamapong Pathompat**
Chairman

(July 21, 2014- September 9, 2014)



Mrs. Urai Romphottiyok
Member Representing Ministry
of Finance

(November 29, 2011-August 31, 2014)



Mr. Narin Kalayanamit
Member Representing Ministry
Of Finance

(September 22-30 2014)



Mr. Sathit Loahacharoenyot
Member Representing Ministry
Of Transport

(January 3, 2013- September 30, 2014)



Mr.Somsak Chotrattanasiri
Member Representing Ministry
Of Bureau of the Budget

(October 28, 2011 - September 30, 2014)



Mr. Chanvit Amatamatucharti
Member Representing The Office
Of The National Economic and
Social Development Board

(October 21, 2011 - September 30, 2014)



Pol. Gen. Worapong Chewprecha
Member Representing Royal
Thai Police Headquarters

(October 21, 2011 - September 30, 2014)



Prof. Kumchai Jongjakapun
Qualified Member

(November 1, 2011-July 20, 2014)



Pol. Maj. Gen Surasit Songkhaphong
Qualified Member

(November 1, 2011 - July 19, 2014)



Mr. Plakorn Wanglee
Qualified Member

(July 21, - September 30, 2014)



Mr. Plakorn Wanglee
Member and Secretary

(July 21, - September 30, 2014)



Air Marshal Banjong Klainasut
Qualified Member

(July 21, - September 30, 2014)



Mr. Aiyarat Tinapai
Member and Secretary

(November 8, 2011- September 30, 2014)

5.4 Role and Responsibility of the EXAT Board of Directors

For the utmost benefits of the stakeholders, the role and responsibility of the EXAT Board of Directors follows directly the duties stipulated in Article 19 of the Expressway Authority of Thailand Act B.E. 2550 (2007) and corresponds with the cabinet motion regarding guidelines in state enterprise good governance, with the emphasis on Duty of Care, Skills and Duty of Loyalty, as following responsibilities;

1) The Board of Directors is the leader in determining the vision, directions, strategies and policies, seeking information such as laws, cabinet motions and regulations enforced on EXAT.

2) The Board of Directors is responsible for the organization as a whole, including giving approval to significant strategies, policies, purposes, objectives and plans.

3) The Board of Directors is responsible for regularly supervising, controlling, and monitoring that the operations follow the annual corporate and operational plans, as well as organizing a reporting agenda in the monthly meetings

4) The Board of Directors is responsible for ensuring the reliability of the financial reports and auditing by appointing the Audit Committee to supervising the accounting system, financial reports, auditing, internal control and auditing, risk management, and good corporate governance.

5) The Board of Directors is responsible for supervising and monitoring the use of EXAT assets to ensure appropriateness and maximum benefits.

6) The Board of Directors is responsible for supervising the human resources management by approving matters regarding the organizational structure, salary structure, appointment and punishment of top executives, appeal consideration, punishment of employees, and early retirement.

7) The Board of Directors is responsible for appointing minor committees and sub-committees to perform duties in accordance with related laws and as assigned by the Board of Directors for maximum benefits of the EXAT, by virtue of authority vested in them by Section 20 of the Expressway Authority of Thailand Act B.E. 2550 (2007), which gives the Board of Directors the authority to appoint sub-committees or consultants to carry out EXAT operations.

8) The Board of Directors is responsible for selecting the Governor, determining wages and other fringe benefits, as well as terms of employment and employment termination, and carrying out regular operation assessment through the Governor Selection Committee, the Governor's Remuneration Sub-committee, and the Sub-committee for screening the Governor's Action Plan and Assessment of the Governor's Performance.

The Board of Directors shall adhere to ethical conduct to promote good governance in the organization. That is, the Board of Directors must fulfill its duty in the bounds of law, dedicate time to its duty, demonstrate its commitment, exercise its discretion with honesty, ensure EXAT compliance with relevant standards, protect the benefits of the government and the general public, maintain its honesty and integrity, and possess no stake or conflict of interest.

5.5 Self-assessment

The EXAT Board of Directors performs self-assessment every six months in accordance with the resolution of the EXAT Board of Directors meeting no.2/2546 (2003) on February 25, 2003, using three types of assessment, namely 1) individual assessment, 2) cross assessment, and 3) group assessment. The results of the assessment are to remain confidential. The secretary of the Board will collect and report the results to every member of the Board individually as well as submit a summary to the Ministry of Transport and the Ministry of Finance and present the summary to the EXAT Board of Directors for their acknowledgement and consideration.

5.6 Conflict of Interest

EXAT policies prohibit the Board of Directors or any EXAT official from any action that can be construed as either direct or indirect conflicts of personal and the organization's conflict and any conduct carried out for self-interests. To ensure uniform understanding and practice, EXAT has defined clear principles and guidelines on avoidance of conflicts of interest, as prescribed in the EXAT Decree No. 431/2556 (2013) on conflicts of interest, dated December 25, 2013. The EXAT Board of Directors, executives, employees, and workers are to study the guidelines and strictly avoid any action that falls within the scope of a conflict of interest.

In essence, the Decree defines actions or circumstances that are considered conflicts of interest, identifies different gift giving and receiving that fall in the category of conflicts of interest that should be avoided, prescribes appropriate practices for employees found to have performed actions that are conflicts of interest and appropriate practices for supervisors, specifies appropriate practices for the Governor and every employees in compiling conflict of interest reports due every designated month of the year, upon taking new office, or when conflict of interest arise during the year. The Decree also dictates appropriate conduct regarding the use of conflict of interest reports or when difficulties arise due to compliance to the Decree, in which case the Governor is to be the ultimate arbiter. In the fiscal year 2014, the EXAT executives, officials, and employees have no conflict of interest.

5.7 Internal Control and Risk Management

EXAT operates its risk management quality development in accordance with the international standard COSO-ERM (Committee of Sponsoring Organization of the Treadway Commission-Enterprise Risk Management) and the regulations of the State Audit Commission on Internal Control Standards B.E. 2544 (2001), which is composed of five aspects regarding internal control standards as follows:

- 1) Control Environment
- 2) Risk Assessment
- 3) Control Activities
- 4) Information and Communications
- 5) Monitoring

Internal control and risk management covers operations of the organization regarding both monetary and non-monetary aspects, encompassing economic, environmental, and social operations. In addition, value-based enterprise risk management (VBRM) has been implemented through various strategies to convert risks and crises into opportunities and the creation and exploitation of arising and existing opportunities to create added value and benefits for the organization. The top executives are informed of the results of the assessment of internal control and risks.

EXAT has prescribed reports of internal control results, detailing the effectiveness of internal control, to be presented to supervisors, the Sub-committee for Good Corporate Governance, the Audit Committee, the EXAT Board of Directors, and the State Audit Commission (SAC).

Reports of risk management, including progress monitoring and the assessment of risk control, are to be submitted to the Committee of Risk Management, the Sub-committee for Good Corporate Governance, the Audit Committee, the EXAT governance, and the Board of Directors.

5.8 Ethics

Furthermore, in 2011, EXAT compiled an Ethics Manual for EXAT operations by rearranging the EXAT Code of Conduct into categories for easier memorization and selecting the acronyms **"HEARTS"** to reflect the determination. **"HEARTS"** refers to careful operations that encourage the Board of Directors, executives, all EXAT employees and workers to adopt the principles and guidelines to practice, resulting in outstanding professional culture that sets an example for society. The acronym **"HEARTS"** stands for the following words:



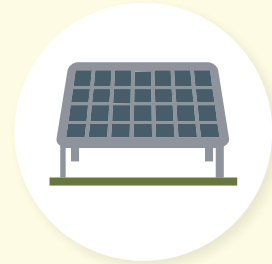
"Honesty, Equity, Transparency, and Social Responsibility"

Figure 12 Ethics of EXAT

5.9 Management of Good Corporate Governance and Corporate Social Responsibility

The Board of Directors has appointed the Sub-committee for Good Corporate Governance to formulate policies, strategies, objectives, and operation plans regarding good corporate governance, to supervise, monitor, and promote compliance with good corporate governance guidelines, as well as manage performance results regarding good corporate governance and corporate social responsibility.

In the fiscal year 2014, the Sub-committee for Good Corporate Governance convened 7 meetings to monitor operations regarding corporate governance and corporate social responsibility, the plans and results of which are to be, as prescribed by the Good Corporate Governance Manual, considered on a quarterly basis and then reported to the Board of the Directors.





06

Corporate Social Responsibility Practices of the Expressway Authority of Thailand



EXAT's main responsibilities are to solve traffic problems, increase traffic flow, and create comfortable travel connection for the public. In addition, EXAT's service areas are not limited to only in Bangkok and its vicinity, but the organization has planned to expand to other provinces, e.g. Phuket, Chonburi, Phranakhon Sri Ayutthaya, Chiang Mai, and Khon Kaen.

The expansion of service areas is a challenge the organization faces as it tries to maintain the service standards at a level of constant satisfaction. At the same time, balance must be created between social and environmental impact that may arise from the expansion into locations with more diverse economic, social, and environmental dimensions.

As commonly known, the expressway expansion brings about positive impact in the form of heightened potential of Thailand's transportation, which is the country's infrastructure. As a result, economic activities, logistics, shipping, and transportation all receive more convenience and save more time. However, such operations may affect certain stakeholders such as those afflicted by expropriation for construction, parts of the environment damaged, or surrounding communities troubled by the construction of the expressway. Therefore, EXAT provides CSR-in-Process whether prior to and during construction or during operation, as well as solves any problems in a manner that is fair to all parties.

Furthermore, EXAT organizes stakeholder engagement activities through CSR-after-Process to bolster the success of operations in other aspects of the organization, as well as to develop Thai society simultaneously.

In correspondence with EXAT's vision **"to be a worthy alternative means of transport marked with advanced development and environmental concern,"** the organization has created the CSR vision of **"Low Carbon Society (LCS)."** This policy has become the scope for EXAT's CSR operations and is required for all employees to understand and practice with earnest in all parts of the organization.



EXAT Corporate Social Responsibility Policy

1. EXAT will adopt international CSR standard and encourage public participation for its operations to solve environmental problems resulting from their projects.
2. EXAT is committed to create CSR awareness among its employees with special focus on environmental conservation.
3. EXAT will promote operational integration between different functions within the organization and those outside in order to create operational effectiveness and achieve their objectives.
4. EXAT aims to be among the organizations that work in support of social contribution activities to help promote better living quality and welfare of the stakeholders.
5. EXAT will disclose information related its project and CSR practices completely and accurately.

Announced May 4, 2012

6.1 Excellent Service



Organizational Objective:

Quality service trusted by the public

EXAT's excellent service begins with conducting a Feasibility Study (FS) to select a corridor course of the project. This also includes an Environmental Impact Assessment Report (EIA) which covers the periods before and during construction, as well as during operation. EXAT realizes that taking responsibility from the early stage of the operation is the first step towards good service that can respond to the demand of the public and offer value for investment, which will then benefit the economic system and society at large.

EXAT has adopted United States of America's AASHTO standards of expressway and highway design that is commonly used, complete with the safety of structure and road components that can withstand earthquakes. Moreover, EXAT has also adopted the ISO 14001 and ISO 9001 in its environmental operations and services to strive towards being a worthy and quality expressway service provider.

Another important key to driving all of EXAT's operations towards excellence in service is the development of human resources. Thus, in addition to the responsibility towards the organization's main missions, EXAT pays attention to providing care for its employees. This will bring about leadership in expressway service provider, create the most satisfaction for users, and fulfill the duties of offering convenience and safety to users.

6.1.1 Construction and Maintenance of Expressway for Service

To construct the expressway in such a way that most accurately solves traffic problems and meets the demand of the users begins with the development of the concepts and making of a conceptual design that is appropriate for each route. At the same time, EXAT conducts an Environmental Impact Assessment Report (EIA Report) for every new construction of the expressway (100%). The report includes an analysis of impacts as well as suggested prevention, solution, and mitigation of impacts.

All operational expressways undergo continuous research and development for safety and maintenance to meet international standards such as ISO 14001 and ISO 9001.

Investment in the construction, expansion, and repairs of the expressway can be considered an economic development with indirect impact on the development of transportation and logistics system, which are the country's basic public utility. In the fiscal year of 2014, EXAT invested in additional basic structure in the amount of 12,896.89 million baht and repaired various structures in the amount of 107,439.25 million baht.

Table 6 Health and safety impact assessment at each life cycle stage of expressway

Health and Safety Impact Assessment at Each Life Cycle Stage of Expressway	Yes	No
1. Expressway Concept Development	✓	
2. Research and Development	✓	
3. Certification	✓	
4. Manufacturing and Production		✓
5. Marketing and Promotion	✓	
6. Storage Distribution and Supply		✓
7. Use of Service	✓	
8. Disposal, Reuse or Recycling		✓

Source: EXAT construction unit

Furthermore, EXAT provides specific units supervising traffic and accidents problems. Plans to prevent and solve accidents in the expressway have been analyzed and made using statistics of accidents. The methods include warning signs, additional exit signs, safety equipment, etc. Over the years, EXAT has been continuously improving the expressway for more safety. The operation summary throughout 3 years (fiscal years 2012–2014) is as follows:

Table 7 Operations to increase safety and convenience to expressway users fiscal years 2012-2014

Operations	Fiscal year		
	2012	2013	2014
<p>Cleaning of expressway and control of dust amount from traffic on the expressway, as well as environmental improvement on the expressway.</p>	<p>Cleaned the surface of Chaloem Maha Nakhon Expressway, Chalong Rat Expressway, and Burapa Withi Expressway</p> <ul style="list-style-type: none"> vacuumed fast lanes and emergency lanes. collected fallen items in fast lanes and emergency lanes. cleaned traffic signs and fluorescent signs cleaned sewers, sieves, and draining gutters on the shoulders. Replaced and planted more perennial plants in the expressway area. watered and cared for plants in the expressway area. <p>Additional cleaning of expressway around the toll plaza where dust amount was higher than the standard of the Pollution Control Department:</p> <ul style="list-style-type: none"> vacuumed the area around the toll plaza. swept the toll lanes and in front of the expressway office. 	<p>Cleaned the surface of Chaloem Maha Nakhon Expressway, Chalong Rat Expressway, and Burapa Withi Expressway</p> <ul style="list-style-type: none"> vacuumed fast lanes and emergency lanes in the distance of 65,280 km. collected fallen items in fast lanes and emergency lanes in the weight of 98,405 kg. cleaned 3,654 traffic signs and fluorescent signs. cleaned sewers, sieves, and draining gutters on the shoulders in the distance of 981.74 km. Replaced and planted 800 more perennial plants in the expressway area. <p>Additional cleaning of expressway around the toll plaza where dust amount was higher than the standard of the Pollution Control Department (5 complexes):</p> <ul style="list-style-type: none"> vacuumed the area around the toll plaza 1,560 times. swept the toll lanes and in front of the expressway office 950 times. 	<p>Operated on Chaloem Maha Nakhon Expressway, Bang Na-Ar Narong Expressway (S1), Chalong Rat Expressway, Burapa Withi Expressway, and Kanjanaphisek Expressway</p> <ul style="list-style-type: none"> vacuumed fast lanes and emergency lanes in the distance of 87,120 km. collected fallen items in fast lanes and emergency lanes in the weight of 200,631 kg. cleaned 8,152 traffic signs and fluorescent signs. cleaned sewers, sieves, and draining gutters on the shoulders in the distance of 1,192.46 km. Replaced and planted 480 more perennial plants in the expressway area. watered and cared for plants in the expressway area 1,340 times. <p>Additional cleaning of expressway around the toll plaza where dust amount was higher than the standard of the Pollution Control Department (5 complexes):</p> <ul style="list-style-type: none"> vacuumed the area around the toll plaza and swept the toll lanes 1,560 times

Table 7 Operations to increase safety and convenience to expressway users fiscal years 2012-2014 (cont.)

Operations	Fiscal Year		
	2012	2013	2014
Cleaning of expressway and control of dust amount from traffic on the expressway, as well as environmental improvement on the expressway. (cont.)	<p>Cleaned the surface of Kanjanaphisek Expressway (Bang Phli-Suksawat)</p> <ul style="list-style-type: none"> vacuumed and collected garbage in fast lanes and emergency lanes in the distance of 54,000 km. 	<p>Cleaned the surface of Kanjanaphisek Expressway (Bang Phli-Suksawat)</p> <ul style="list-style-type: none"> vacuumed fast lanes in the distance of 50,544 km. collected fallen items in fast lanes and emergency lanes in the distance of 82,035 km. 	<p>Operated on Kanjanaphisek Expressway (Bang Phli-Suksawat)</p> <ul style="list-style-type: none"> vacuumed fast lanes and emergency lanes in the distance of 42,268 km. collected fallen items in fast lanes and emergency lanes in the distance of 53,060 km.
Installation of safety-enhancing equipment on the expressway.	<ul style="list-style-type: none"> repaired road surface. conducted an effectiveness evaluation of Speed Enforcement cameras. installed Over Speed Warning and Enforcement System. 	<ul style="list-style-type: none"> repaired road surface. installed Over Speed Warning and Enforcement System. installed crash cushion at 13 fork corners. improved the Burapa Withi line by adding Transverse Rumble Strips to make expressway users drive slower, feel alert, and increase caution. 	<ul style="list-style-type: none"> repaired road surface. installed additional warning signs and exit signs at Chatuchote overpass bound the Outer Bangkok Ring Road. installed warning signs for people who need to use the emergency phone on Chalong Rat Expressway in case of car breakdown.

Table 7 Operations to increase safety and convenience to expressway users fiscal years 2012-2014 (cont.)

Operations	Fiscal Year		
	2012	2013	2014
Expressway special units.	<ul style="list-style-type: none"> Blue Thunder: Traffic control officers riding large motorbikes equipped with fuels, water, and cables for emergency assistance. 	<ul style="list-style-type: none"> provided large motorbikes with equipment for traffic patrol on the expressway and assistance in areas with heavy traffic on Chaloem Maha Nakhon Expressway, Sri Rat Expressway, Chalong Rat Expressway, and Kanjanaphisek Expressway. 	<ul style="list-style-type: none"> provided large motorbikes with equipment for traffic patrol on the expressway and assistance in areas with heavy traffic on Chaloem Maha Nakhon Expressway, Sri Rat Expressway, Chalong Rat Expressway, and Kanjanaphisek Expressway.
Drills of rescue and assistance in severe accidents from hazardous items.	<ul style="list-style-type: none"> EXAT Hawk: Rescue officers and traffic control officers operating 24 hours to patrol EXAT's properties on the expressway and provide basic firefighting drills to EXAT employees. 	<ul style="list-style-type: none"> organized a joint drill with Safety Communication Center, Sai Mai District Office, Expressway Police Station 1, Sai Mai Metropolitan Police Station, Port Authority of Thailand, Siangas and Petrochemicals PCL., and Bangkok Expressway PCL. (BECL) at Sukhaphiban 5-1 Toll Plaza on July 10, 2013. 	<ul style="list-style-type: none"> Organized a drill with BECL Co., Ltd. and external organizations at Chiang Rak (Inbound) on July 28, 2014.




6.1.2 Development of Human Resources towards Quality Service

In 2014, EXAT's development of human resource potentials was made possible by the cooperation and engagement of employees of all levels. The employees are an important group of stakeholders that will drive the organization towards sustainable development. EXAT offers care for its employees in terms of quality of life, equal remunerations and benefits, opportunity for promotion, career advancement, potential development, quality of life development, and occupational safety, on equal terms and without discrimination against gender, religion, nationality, etc.

6.1.2.1 Information of EXAT Personnel




In the fiscal year 2014, EXAT had 4,635 employees and 607 supervised workers, totaling 5,242 units of workforce (as of September 30, 2014) with employee information as follows:

Table 8 Number of employees at each level by gender, fiscal year 2012-2014

Fiscal Year	Gender	Level	Number of Workforce	%
 2012	Male	Executive Level 9 and Above	17	0.34
	Female		5	0.10
	Male	Executives Level 7-8	130	2.64
	Female		105	2.13
	Male	Operational Employee Level 1-6	2,583	52.48
	Female		1,604	32.59
 2013	Male	Executive Level 9 and Above	16	0.31
	Female		3	0.05
	Male	Executives Level 7-8	123	2.41
	Female		98	1.92
	Male	Operational Employee Level 1-6	2,677	52.61
	Female		1,633	32.09
 2014	Male	Executive Level 9 and Above	15	0.28
	Female		3	0.05
	Male	Executives Level 7-8	112	2.13
	Female		95	1.81
	Male	Operational Employee Level 1-6	2,736	52.19
	Female		1,674	31.93

(Data as of September 30, 2014)

Table 9 Number of employees by type of employment contract and gender, fiscal year 2012-2014

Fiscal Year	Gender	Type of Employments	Number of Workforce
 2012	Male	Permanent Employee	2,730
	Female		1,714
	Male	Temporary Worker	384
	Female		53
 2013	Male	Permanent Employee	2,816
	Female		1,734
	Male	Temporary Worker	452
	Female		86
 2014	Male	Permanent Employee	2,863
	Female		1,772
	Male	Temporary Worker	510
	Female		97

(Data as of September 30, 2014)

Table 10 Number of new employees by gender, fiscal year 2012-2014

Fiscal Year	Gender	Number of Employees	%
2012	Male	219	4.93
	Female	85	1.91
2013	Male	158	3.47
	Female	55	1.21
2014	Male	109	2.07
	Female	67	1.27

(Data as of September 30, 2014)

Table 11 Number of new employees by age range, fiscal year 2012–2014

Age Range	Fiscal Year					
	2012		2013		2014	
	No. of New Employees	%	No. of New Employees	%	No. of New Employees	%
Below 30 years	166	3.74	141	3.10	109	2.07
Between 30–50 years	138	3.11	72	1.58	67	1.27
Over 50 years	–	–	–	–	–	–

(as of September 30, 2014)

Table 12 Number of terminated employees by gender, fiscal year 2012–2014

Year	Gender	Number of Employees	%
2012	Male	51	1.15
	Female	24	0.54
2013	Male	74	1.63
	Female	35	0.77
2014	Male	62	1.18
	Female	29	0.55

(Data as of September 30, 2014)

Table 13 Number of terminated employees by age range, fiscal year 2012–2014

Age Range	Fiscal Year					
	2012		2013		2014	
	No. of New Employees	%	No. of New Employees	%	No. of New Employees	%
Below 30 years	22	0.50	15	0.33	10	0.19
Between 30–50 years	33	0.74	44	0.97	38	0.72
Over 50 years	20	0.45	50	1.10	43	0.82

(Data as of September 30, 2014)

Table 14 Number of employees by diversity criteria, fiscal year 2014

Diversity Criteria	EXAT Board of Directors	Executives (Level 9 and above)	Executives (Level 7-8)	Operational Employees (Level 1-6)
Male	12	15	112	2,736
Female	2	3	95	1,674
Below 30 years	-	-	-	627
Between 30-50 years	2	1	78	3,256
Over 50 years	12	17	129	527

(Data as of September 30, 2014)

EXAT provides remunerations to the employees in the appropriate rates for the position, knowledge, and skills. The remunerations refer to both monetary and non-monetary compensation and include salaries, wages, bonuses, allowances, and financial aids such as medical fees, accommodation for trips to a different province, and educational support for offsprings, as well as annual medical check-ups, paid leave of absent, provident funds and aid funds³. In the fiscal year of 2014, the provident fund amounted to 2,777,138,951.00 baht, of which the welfare for retired employees accounted for 43,174,400 baht. The provident fund is administered and managed by SCB Asset Management Co., Ltd. under the regulations of Securities and Exchange Commission and the Stock Exchange of Thailand.

Apart from post-retirement stability given to employees, EXAT also pays attention to the employees' happiness while performing duties as EXAT employees. Towards this end, EXAT allows both male and female employees, as well as workers, to take leave to take care of their child, as EXAT believes that familial happiness is significant for both men and women equally. In the fiscal year of 2014, the number of employees who exercised this child care leave was 13 in total.

Table 15 Number of employees and workers by maternity leave, fiscal year 2014

Maternity leave	Male employees and workers	Female employees and workers
Number of employees eligible for maternity leave.	3,373	1,869
Number of employees who took maternity leave.	11	2
Number of employees who returned to work after maternity leave.	11	2
Number of employees who return to work after maternity leave and remained in employment for one year afterwards.	-*	1*
Rate of employee return and retention after maternity leave.	100%	100%

(Data as of September 30, 2014)

Remarks * Calculated from the number of employees who took maternity leave in fiscal Year 2013, one employees took the leave and returned to work after the leave ended and remained in employment for one year afterwards

³ Only eligible for employees employed before October 1, 1996, who are not members of the provident fund.

EXAT offers the same benefits and remunerations to both employees and workers. These include life insurance, healthcare, care of disabilities/protection of the disabled, child-rearing leave, and retirement regulations. However, there may be differences with regard to the terms of each type of benefit as follows:

Table 16 Details of different benefits between EXAT employees and workers

Item	Details	Employee	Worker
EXAT benefits (according to restrictions)			
1	Hospital fees in accordance with restrictions 2008.	✓	✓
2	Children's Educational Assistance in accordance with restrictions 2008.	✓	✓
3	Child benefits in accordance with restrictions 2008.	✓	✓
4	Childbirth in accordance with restriction issue no.48	✓	✓
5	Retirement benefits in accordance with the announcement of State Enterprise Relations Committee dated September 8, 2010.	✓	
6	Financial Assistance for Cremation based on Finance Assistance for Cremation restrictions in case of death not resulting from work.	✓	✓
7	Compensation in case of operational hazard or sickness .	✓	✓
8	Accident insurance for those whose work are at risk based on EXAT restrictions for individual whose work are at risk.	✓	✓
9	Employee uniform based on restrictions no. 73, 95, 134.	✓	✓
10	Annual Health Checks based on restrictions no. 122.	✓	✓
11	Financial Assistance for Disaster victims based on restrictions for the Financial Assistance for Disaster victims 2008 and Financial Assistance for Disaster victims (issue no.2) 2012.	✓	✓
12	Assistance Fund based on Assistance Fund restrictions 2009.	✓	
13	Provident Fund based on restrictions for Provident Fund as registered by EXAT.	✓	
14	Funeral rites assistance based on regulations for Funeral rites 2013, Regulations of Ministry of Social Development and Human Security for Funeral rites for government officials and government organization, state enterprise and occupational organization registered as a juristic person under the government supervision 2004.	✓	✓
Other benefits (voluntary)			
15	Dhipaya Insurance - Personal accidents insurance - Car insurance - Fire insurance	✓	✓
16	AIA Group saving insurance and Retirement Fund.	✓	✓
17	Government Housing Bank credit for housing benefits.	✓	
18	Government Saving Bank credit.	✓	
19	Krungthai Bank credit.	✓	

6.1.2.2 Rights and Freedom of Employees

The rights and freedom of the employees in voicing their opinions and collective bargaining regarding EXAT's operations fundamentally push and develop the organization's operational plans or activities that affect the employees, thus benefitting them in making requests and participating in policy making. The employees can exercise their rights and freedom through the Labor Union, which acts as a medium of communication between the employees and management. EXAT has established the EXAT Labor Union in compliance with the Labour Relations Act B.E. 2543. In the fiscal year of 2014, the number of employee members of the Union totalled 3,026, or 57.72% of all employees. There are 30 members in the Labor Union Working Team running the administration of the Union and 7 representatives of the Labor Union Working Team are part of the organization's Enterprise Relations Working Team.

6.1.2.3 Potential Development Training

Providing training to the employees is an important part of the development of the organization towards international standard. Training also enhances career advancement and professional stability, as well as contributes significantly to employee satisfaction. EXAT provides training in both courses associated with EXAT operations to improve professional potentials and courses not related to operations to foster lifelong learning for employees. In the fiscal year of 2014, EXAT organized 43 training courses in complacence with the organization's operational plans and strategies with the total expenditures of 25,395,369.62 baht. The training courses can be categorized as follows:

● Strategic & Action Plan Alignment	9 courses
● Process & Job Development Alignment	16 courses
● Learning Organization & Sustainable Organization	10 courses
● Leading and Change	1 courses
● Regulation, Law and Standard	7 courses

From the training organized by EXAT in the fiscal year of 2014, the average training hours of EXAT employees amounted to 23.53 hours/person/year. The figure is still higher than that stated in the employee training regulations, which is 18 hours/person/year.

Table 17 Attendance of Employees in training courses, fiscal year 2012-2014

Employee Training Information	Fiscal Year (hours/person/year)		
	2012	2013	2014
Average Training hours of all EXAT employees			
Average Training hours	30.47	27.17	23.53
Average Training hours separated by gender			
Male	28.57	24.75	21.49
Female	33.49	31.09	26.81
Average Training hours separated by level of position			
Operations 1-6	27.64	22.73	21.50
Executives 7-8	76.45	110.71	66.50
Executives above level 9	78.50	61.84	25.72

(Data as of September 30, 2014)

Apart from the development of personal potentials that relate to the operations, EXAT also places emphasis on employee development outside of the operations. There are training course that can be adapted to daily life or adapted to use outside of working contexts such as

- **Talent & Successor Development**
- **Economic Structure Analysis and Finance**
- **Martial Arts for Self-Defense**
- **Fire Prevention and Fire Fighting**
- **English Development in Preparation for the AEC**

6.1.2.4 Occupational Health and Safety

In addition to training, EXAT also places particular importance on occupational health and safety of employees and workers of all levels. This is because the nature of the organization's operations entails risks to EXAT's employees. Therefore, EXAT has appointed an Occupational Health and Safety Committee to consider policy and plans regarding safety in the workplace, as well as to encourage, support, observe operations concerning safety in the workplace. The committee consists of 95 full-time employees and workers from different units, amounting to 1.81% of all employees.

In 2014, EXAT has revised and improved the operations plans regarding safety, sanitation, and workplace environment to be more effective. Consequently, the number of employees and workers who were endangered while on duty decreased significantly from the fiscal year of 2013. The figures can be divided by gender and type of cases as follows:

Table 18 Occupational Injuries or Illness of Employees and Workers, fiscal year 2012–2014

Occupational Injuries of Employees and Workers	Fiscal Year (Persons)		
	2012	2013	2014
No. of injured employees from operation.	12	21	8
No. of injured employees from operation by gender			
- Male	10	15	8
- Female	2	6	-
No. of injured employees from operation by case			
- Injured and Treated	12	21	8
- Fatalities	-	-	-
Medical treatment expense/remunerations by case (Baht)			
- Injured and Treated	133,273.62	201,874.02	57,573.00
- Fatalities	-	-	-

(Data as of September 30, 2014)

The information of incidents above does to include minor accidents. The Injury Rate (IR), Occupational Diseases Rate (ODR), Lost Day Rate (LDR), and Absentee Rate (AR), calculated in relation to the total number of employees in the fiscal year of 2014 (in 52 weeks) and divided by gender, are as follows:

Table 19 Occupational injuries, diseases, lost days and absenteeism of EXAT employees, fiscal year 2012-2014

Details	Fiscal Year		
	2012	2013	2014
Injury Rate (IR) unit : person/200,000 working hours			
- Male	0.20	0.11	0.15
- Female	0.04	0.28	-
Occupational Disease Rate (ODR) unit : person/200,000 working hours			
- Male	No case of occupational diseases	No case of occupational diseases	No case of occupational diseases
- Female	No case of occupational diseases	No case of occupational diseases	No case of occupational diseases
Lost Day Rate (LDR) unit : person/200,000 working hours			
- Male	1.12	8.71	0.62
- Female	2.01	1.02	-
Absentee Rate (AR) unit : person/200,000 working hours			
- Male	no absentees	no absentees	no absentees
- Female	no absentees	no absentees	no absentees

(Data as of September 30, 2014)

Besides the safety operations plans for the fiscal year of 2014 that EXAT has effectively adapted to the organization, EXAT also organizes annual health check-ups and monitors the results of health treatment to the employees and workers. One effort is collaboration with the Faculty of Tropical Medicine, Mahidol University, and Banphao Hospital (Public Organization) to perform health check-up to EXAT's employees and workers to inspect lead in the blood of employees who are at risk. Nevertheless, EXAT has prepared a measure for any employees whose blood contains higher lead level than the standard value by rechecking every 3 months. Also, EXAT will offer further assistance such as wearing personal safety gear while on duty, switching operational location and periods of time on duty. Other projects organized to care for the employees, as well as trainings for employees, families, and communities, include performing firefighting and evacuation drills at buildings and toll plazas at least once a year, ensuring that employees and workers wear standard safety gear, inoculating employees at risk against the 2009 strain of flu, and campaigning about no smoking and HIV protection, and forbidding the consumption and sales of alcoholic beverages in EXAT areas.

Furthermore, there are 124 out of 143 employees and workers of the Expressway Maintenance Division who are operating on the expressways which areas prone to accidents.

6.1.3 Expressway Users' Satisfaction

The satisfaction of expressway users is extremely significant to the main business of EXAT. Thus, in order to improve and develop the service to most appropriately and best respond to the needs of the expressway users, EXAT has conducted annual surveys on user satisfaction covering both the expressway service and other supporting services. The results of the survey are used to create innovations and improve the quality of the services. In 2014, EXAT compared the results of the three previous years to analyse the progress of operations.

For the survey regarding users' satisfaction towards EXAT's services and image in the fiscal year of 2014, the overall satisfaction amounted to 85.8%. The scores for other aspects, divided by type of service and environmental management on the expressway, are as follows:

Table 20 Expressway user satisfaction survey on service and image of EXAT, fiscal year 2012–2014

Topics of Satisfaction Survey	Satisfaction Level (%)		
	Fiscal Year		
	2012	2013	2014
7 Dimensions of Expressway User Satisfaction			
Fiscal dimension of expressways.	84.4	85.3	85.2
Traffic flow on expressways.	85.1	86.7	86.8
Toll collection system by cash.	84.8	85.8	85.8
Safety on expressways.	84.3	85.1	85.5
Traffic signs and displays.	84.4	85.4	85.5
Roadside assistance service on expressways.	91.4	91.1	91.1
Easy Pass service.	81.5	82.1	81.8
Average of Overall Satisfaction Level	85.1	86.2	85.8
Other EXAT Satisfactory Dimensions			
Clarity of real-time traffic reports sign on Intelligent Traffic System (ITS) screen.	71.2	76.1	75.8
Clarity of speed limit and emergency lane matrix sign.	–	–	74.6
Clarity of Variable Message Sign (VMS).	–	–	74.8
Roadside assistance service on expressways.	91.4	91.1	91.1
EXAT Call Center service.	89.0	85.7	85.5
EXAT Public Information Center service.	82.1	85.7	83.4

(Data as of September 30, 2014)

Table 20 Expressway user satisfaction survey on service and image of EXAT, fiscal year 2012–2014

Topics of Satisfaction Survey	Satisfaction Level (%)		
	Fiscal Year		
	2012	2013	2014
Other EXAT Satisfactory Dimensions (cont.)			
Service via www.exat.co.th	82.5	83.1	82.3
Service via www.thaieasypass.com	81.8	81.6	81.3
Service via One-Stop Service Center.	81.0	82.4	82.7
Service at toll collection building.	–	–	81.4
Service for Easy Pass customer.	81.5	82.1	–
Expressway traffic report service on EXAT website (www.exat.co.th) and smartphone.	–	–	74.8
Expressway User Satisfaction with EXAT Environmental Management in Surrounding Areas			
Satisfaction with environmental management on Chalong Rat Expressway.	87.9	87.5	87.5
Satisfaction with environmental management on Bang Na–At Narong Expressway (S1).	87.1	87.7	87.9

(Data as of September 30, 2014)

The satisfaction scores of expressway users concerning EXAT's services and image from the fiscal years of 2012–2014 indicated that the aspect most impressive to the users was the rescue services on the expressway. In this particular aspect, EXAT's operations to prevent and offer assistance to accidents on the expressway correspond with the ISO 14001 standard. The time spent solving traffic problems arising from car accidents and assistance to broken-down cars on the expressways is on the continuous decline, as follows:

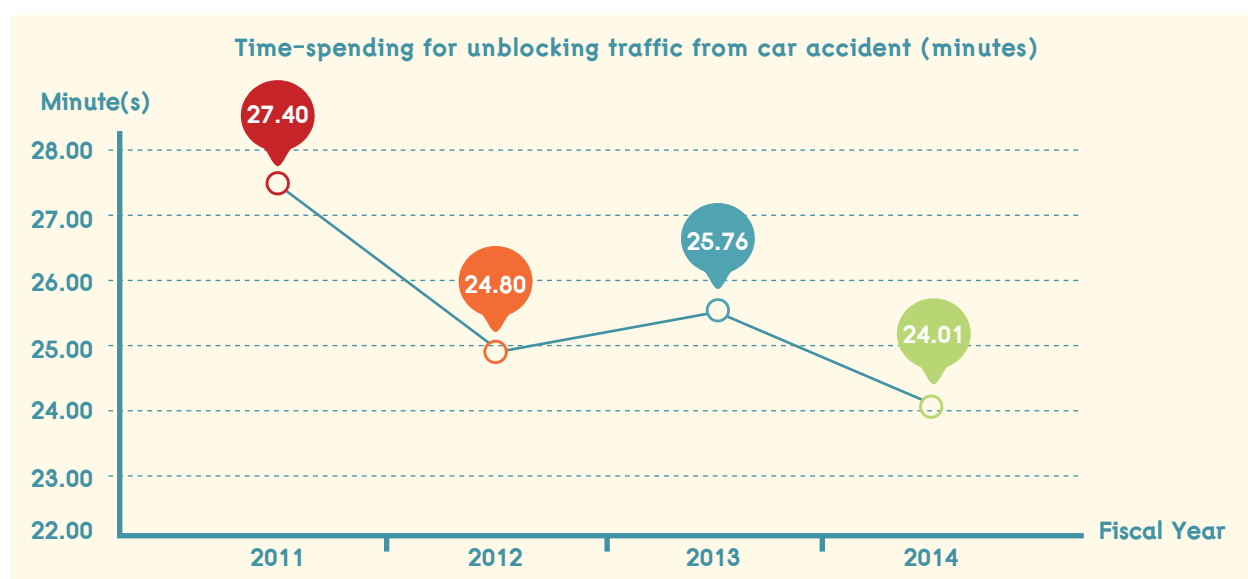


Figure 13 Time-spending for unblocking traffic from car accident

6.1.4 Operations to Maintain Service Excellence

EXAT's "Expressway, A Partner of Customers" project organizes two revision of the performance of toll collecting officers before two evaluations of the quality of the employees operating at toll plazas. These employees are considered those working closest and most frequently to expressway users. This project occurs annually to maintain EXAT's excellent service.

Moreover, the ISO 9001: 2008 has been adopted to the operations of Chaloem Maha Nakhon Expressway toll collection. All year round, EXAT organized various activities to encourage engagement from users and external communities such as EXAT Road Show and promotional activities. These include the distribution of expressway manuals and pamphlets about Easy Pass to create understanding in the use of the expressway and attract increased number of users.

In the fiscal year of 2014, EXAT held the **"Pretty Way, Quickly Served, Minded to Customers"** project to stimulate the top plazas in each route to offer excellent service and boost the employees' morale. The toll plazas were chosen and awarded for their excellent, good, and fair performance.

Each year, EXAT organizes activities to facilitate and increase the safety of the public during Songkran and New Year festivals by giving out products and services that are useful for long-distance drive to the users. This increases relaxation, reduces stress while traveling, and boosts user satisfaction. This also helps to lower the accident rates during long holidays.

Regarding traffic operations, EXAT swiftly responds to accidents on the expressway as delays in such operations may result in traffic congestion and risk of further accidents.

6.1.5 Provision of Expressway Information

EXAT offers information concerning the use of expressway in various forms to meet the demands of users with different lifestyles. Providing accurate information through appropriate channels will ensure faster and safety traveling on the expressway. The channels through which EXAT provides such information are as follows:

- 1) Route suggestion signs and promotional signs on the expressway
 - 1.1) Overhead Sign
 - 1.2) Matrix Sign
 - 1.3) Variable Message Sign (VMS)
- 2) Expressway manuals
- 3) Intelligent Traffic System (ITS) reporting on traffic conditions and giving information of expressway use through various devices including
 - 3.1) Schematic Map
 - 3.2) Smart VMS
 - 3.3) Mobile Application EXAT ITS

6.1.6 Solutions to Problems from Products and Services

EXAT activated the Easy Pass system in 2010 with the goal to provide convenience to the public in paying for the expressway and increase traffic flow at the toll plaza. This improved flow will reduce the waiting time in front of the toll, thereby facilitating traffic. As a result, the service has gained much interest from the expressway users and the general public.

When Easy Pass first began servicing, most users did not fully understand the proper ways to use the Easy Pass. For example, they did not install the Easy Pass at the position recommended by EXAT, or they installed the Easy Pass on a window film with high density or metal, causing the Easy Pass card reader unable to detect it. In addition, due to the incomplete system of the Easy Pass, sometimes the card may be detected but the folding gate may fail to lift, resulting in heavy traffic congestion in front of the toll plaza.

Nevertheless, EXAT's preliminary solutions to the problems were in place, including recording the 19-digit card numbers, dates, times, and license plate numbers of the expressway users affected by the malfunction in order to charge the fees retrospectively. As a result, some expressway users whose Easy Pass was detected but were not let through the folding gate were charged retrospectively. This led to complaints against the Easy Pass system for the unfair treatment. EXAT received the complaints from The Office of the Consumer Protection Board in the fiscal year of 2010, and the complaints were settled in the fiscal year of 2014.

EXAT has clarified that the problems occurred as a result of an attempt to solve heavy traffic in front of the toll plaza and provide convenience to expressway users who had trouble with the Easy Pass. Nevertheless, EXAT did not neglect the problem of repeated charges or the misunderstandings of unfairness. Consequently, EXAT has improved the Easy Pass system so the fees can be charged directly at the expressway office by the expressway fees officers to avoid repeated charges. Also, EXAT has published an Easy Pass manual and expressway use manual to be distributed to users to promote proper use of the expressway.

EXAT has not broken the laws, or failed to comply with the rules and regulations regarding the products and services, or caused damage to the expressway users to the point of lawsuits or punishments.



6.1.7 Privacy of Customers

EXAT has in place a system for storing private information of Easy Pass users. While the information is rudimentary, EXAT's practice is to keep the information confidential. So far, there have been no complaints of violation of customers' privacy or loss of customers' information.



6.2 Visionary Innovations



Organizational Objective:

Safe expressway used to its fullest efficiency

EXAT continuously develops its services to strengthen the country's infrastructure. It is the organization's responsibility to facilitate and service the general public and the expressway users in any manners in order to create the utmost convenience and fluidity according to the intentions behind the establishment of EXAT.

Nowadays, as society, along with people's livelihood, is rapidly changing, staying up-to-date and adjusting become the key to the organization's impressive services. Thus, EXAT is continuously introducing innovations and new technologies that contribute to fast services to the users. This practice has become the most important value to bring competency to the organization.

EXAT has an expressway system engineering research and development unit to select technologies and create innovations that are appropriate for the expressway service for Thailand. The innovations introduced so far include those that are environmental friendly, boost competitiveness in service, offer worthiness of investment, etc. In the fiscal years 2012-2014, EXAT's research of innovations and expressway construction concepts are as follows:

Table 21 Innovations developed by EXAT to enhance expressway service fiscal years 2012-2014

Projects	Objectives	Environment	Service and Safety	Investment Value
1. Study of proper locations for Easy Pass lanes.	To study the proper locations for the Easy Pass lanes at each toll plaza.		✓	✓
2. Development of automatic accident detection system.	To increase speed of safety services on the expressway.		✓	
3. Development of EXAT's intelligent traffic sign system.	To provide up-to-date information to expressway users, increase effectiveness of service, enhance flow on the expressway, and indirectly affect fuel economy.	✓	✓	
4. ITS Center and Data Exchange Center projects.		✓	✓	
5. Study and development of surface sign quality for accurate traffic information to give expressway users accurate traffic information.	To provide information regarding safe use of the expressway.		✓	
6. Comparison of the amount of fuels and exhaust fumes in the cash toll lanes and Easy Pass lanes with and without folding gates.*	To increase flow in payment of expressway and to study the fuel economy rate between cash payment system and Easy Pass system with and without folding gates.	✓	✓	
7. Comparison of the use of energy and greenhouse gas emissions from the construction of asphalt concrete surface between using warm mix asphalt and hot mix asphalt.*	To study the environmental impact caused by construction materials to provide guidelines in making decisions about the appropriate materials in construction.		✓	
8. Development of expressway traffic conditions report on smartphone application (EXAT ITS).*	To provide up-to-date information to expressway users, increase service effectiveness, increase expressway traffic flow, and indirectly affect fuel economy.	✓	✓	
9. Study of the appropriateness of noise-protection walls for the expressway.	To provide guidelines in the decisions reading appropriate materials for construction.			✓

Remark * projects operated in the fiscal year of 2014

6.2.1 Development of Intelligence Traffic System (ITS)

EXAT aims to introduce the Intelligence Traffic System (ITS) to the organization's operations to alleviate traffic problems and reduce accidents on the expressway. The ITS incorporates telecommunication technology with traffic engineering concepts. The development plans for the ITS are as follows:

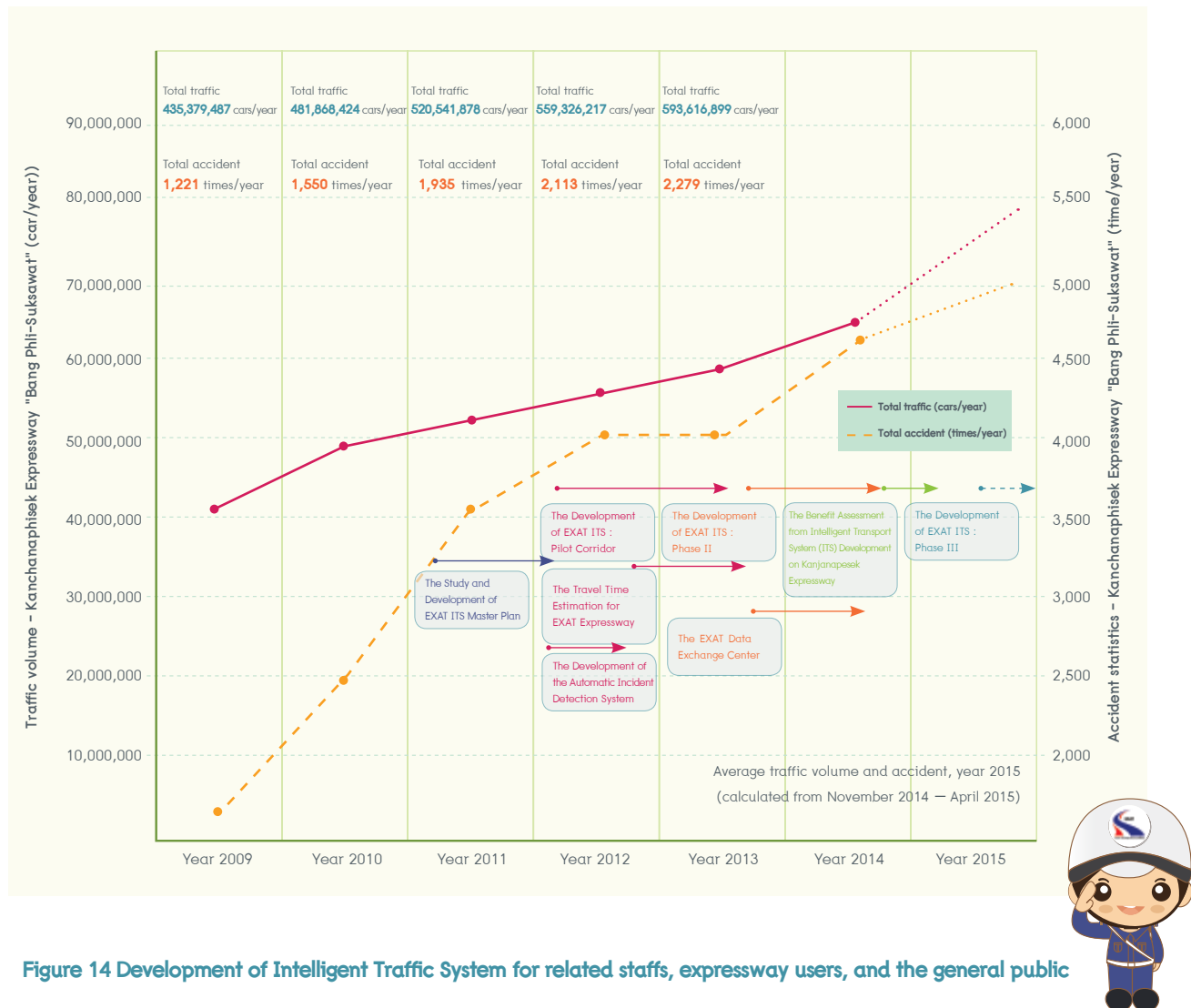


Figure 14 Development of Intelligent Traffic System for related staffs, expressway users, and the general public

The ITS can display traffic conditions to related officers, users, and general public in 3 formats:

- 1) Schematic Map
- 2) Smart VMS
- 3) Mobile Application EXAT ITS

The ITS Center, which was established in 2012 to operate and maintain the ITS system, includes.

- 1) Data Collection System: collect data from automatic traffic sensors.
- 2) Intelligence traffic sign control system (SMART VMS): monitor the operation and accuracy of the information displayed on the traffic signs.
- 3) Data Exchange Center: collect expressway traffic information and exchange with other organizations responsible for main routes that are connected to the expressway.
- 4) Schematic Map: display traffic information in the forms of green-yellow-red lines to indicate traffic conditions both by offices and traffic sensors.
- 5) Devices Monitoring System: monitor the functioning status of the devices and communication system between ITS Center and the devices in the intelligent traffic and transportation system that are connected and functioning 24 hours.
- 6) Automatic Incident detection: monitor and detect accidents or emergency incidents on the expressway by receiving real time traffic information from traffic sensors and processing the data using advanced mathematics based on California Algorithm and McMaster Algorithm.
- 7) Automated Speed Enforcement Camera System: detect the speed of moving vehicles and taking flash photos with high-speed shutters of vehicles moving faster than the speed limit, resulting clear photos of the vehicle and license plates both in daytime and night time. This is the first time that Thailand has adapted the automated speed enforcement camera system to use for speed detection on the expressway.

6.2.2 Benefits from Intelligence Traffic System (ITS)

The benefits of the ITS are multifold. For traffic control, the ITS allows EXAT to monitor real time traffic conditions. In rescue work, the ITS can detect accidents and notify the officers instantaneously, enabling the traffic control officers to reach the scene within 3-5 minutes without waiting for emergency calls. For traffic information service, EXAT Call Center officers can report on traffic conditions based on the ITS screen. Most importantly, expressway users can download the **"EXAT ITS"** application onto their smartphones to access real time traffic information on the expressway and plan their journey.



Table 22 Past ITS operations and ITS plans in the future

Year	Operations
2011	<ul style="list-style-type: none"> Conduct the study and development of the ITS Master Plan to create EXAT's ITS Master Plan.
2012	<ul style="list-style-type: none"> Install and evaluate the ITS Pilot Corridor on Kanjanaphisek Expressway to test the equipment to be featured in the development of ITS and assess the efficiency of the designed system. Opened the ITS Center. Signed an MOU with Hong Kong Polytechnic University and King Mongkut's Institute of Technology Ladkrabang.
2013	<ul style="list-style-type: none"> Developed the ITS phase 2.
2014	<ul style="list-style-type: none"> Evaluate the benefits from the ITS.
2015	<ul style="list-style-type: none"> Plan the expansion of the ITS into the ITS Center phase 3 on Chalong Rat Expressway (Chatuchote–At Narong), Bang Na–At Narong Expressway (S1), Chaloem Mana Nakhon Expressway (FES) At Narong–Bang Na section, and Burapa Withi Expressway Bang Na–Bangkaew section, with the total distance of 49.8 km.

6.3 Flawless Image



Organizational Objective:

Sustainable performance result growth
and reasonable profit

Profit maximization is not the ultimate goal of EXAT's operations. Rather, the profits earned must be generated fairly in such a way that takes into account the impact on the overall economy, causes no problem to the general public, and uses the least amount of natural resources. These are the factors that contribute to the transparent image of EXAT in the long term.

6.3.1 Employee training on Anti-corruption

Because of EXAT's status as a state-owned enterprise, good corporate governance is applied to every EXAT operational process to prevent corruption and forms an integral part in promoting the corporate image in accordance with the organizational goal. As such, EXAT has defined clear guidelines in this regard. An example is the assessment of corruption risks in each line of operation. In the fiscal year 2014, two instances of corruption-prone circumstances in the toll collection line, arising during the delivery of the reserves for Easy Pass Cards, compensation for Easy Pass Cards and Smart Cards, and the money from coupon selling by employees who were working in the toll plaza building.


In response to such incidents, EXAT has put in place auditing guidelines and anti-corruption measures, as well as an efficient toll collection control system, which oversees toll collection in every system through a computer system that records the passage of every vehicle through each lane and calculates the toll, which is used to verify the collected toll that an employee delivers in the expressway toll collection verification process.

The computer-based toll collection control system that is currently use is efficient, up to standard, and accurate enough to control and oversee toll collection. In addition to the computer-based control, toll collection is also controlled by other measures, processes, and practices to increase precision and regulated by regular operation auditing.

Toll collection, which is supervised by the toll collection department head at each toll collection station, is not only controlled by the computer-based verification system, but also regulated by additional techniques, practices, processes, and measures that monitor, verify, control toll collection to ensure complete toll collection as well as prevent leakage, embezzlement, and other forms of corruption.

In addition, EXAT has trained its employees in anti-corruption to provide them guidelines by which they can fulfill their duty with respect, transparency, and honesty. The details of the anti-corruption are as follows:

Table 23 Attendance of employees in trainings related to anti-corruption, fiscal year 2012-2014

Levels of Position 	Trained Employees on Anti-Corruption					
	Fiscal Year					
	2012		2013		2014	
	No. of New Employees	%	No. of New Employees	%	No. of New Employees	%
Operations 1-6	1,976	47.19	1,064	24.69	345	7.82
Executives 7-8	196	83.40	173	78.28	29	14.01
Executives above level 9	18	81.81	18	94.74	1	5.56

(Data as of September 30, 2014)

6.3.2 Economic Impact of Operation under Good Corporate Governance

EXAT has defined guidelines on good corporate governance that serves as a compass towards appropriate operation. Incomes from every line of operation must be appropriately utilized to for a proper distribution of economic value. In this regard, EXAT has divided direct distribution of economic value into operating costs, employee wages and benefits, payments to providers of capital, payments to government, and community investment, as detailed below:

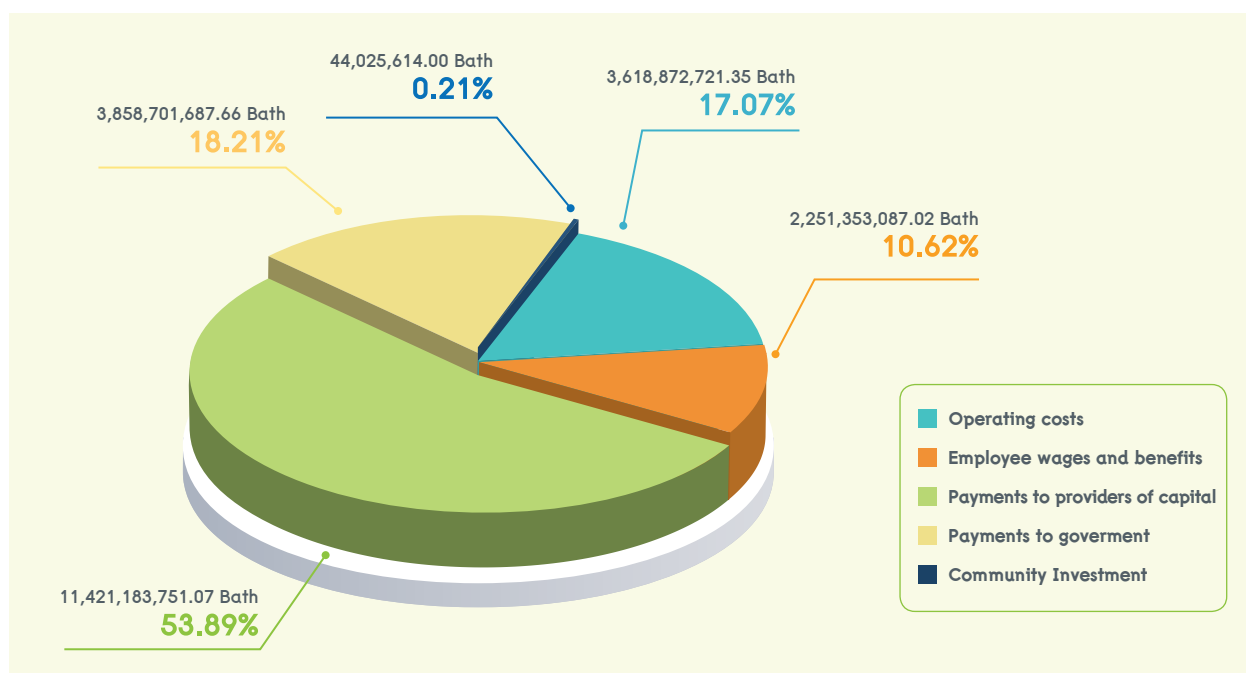


Figure 15 Direct economic value distributed

In the fiscal year 2014, when the distributed direct economic value of 21,194,141,861.10 Baht was compared to EXAT's income of 15,366,923,906.46 Baht, the resulting economic value retained was -5,827,217,954.64 Baht.

Table 24 Economic value retained

Economic Profiles	Value (Baht)
Direct Economic Value Generated	15,366,923,906.46
Direct Economic Value Distributed	21,194,141,861.10
Economic Value Retained	- 5,827,217,954.64

As a wholly owned state enterprise, EXAT received government subsidies worth 3,725,545,508.08 Baht for the fiscal year 2014. In comparison with the fiscal year 2012, the support was lower by 17 percent (in the fiscal year 2013 government support was recorded at 4,488,776,300.00 Baht) as detailed below:

Table 25 Government support

Types of support	Amount (Baht)
Subsidies	2,175,545,508.08
Investment subsidies for land ownership in the Si Rat-Bangkok Outer Ring Road project	1,550,000,000.00
Total	3,725,545,508.08

Furthermore, EXAT set aside an amount of money in preparation for climate change risks and potential natural disasters, with a budget of 50 million baht allocated as insurance premium for losses due to natural disasters. This amount of money was also extended to other endeavors such as research and development projects and other operations related to climate change.

6.3.3 Community Development and Good Corporate Governance

In addition to infrastructure-based social development, EXAT has also managed its resources for the public benefit by through the utilization of its areas to support various social service activities.

Table 26 Areas and number of agents utilized EXAT's areas for public benefits

Expressways	Number of Agent(s)	Size (square two-meters)
Chaloem Mana Nakhon	47	278,894.52
Si Rat	125	601,138.72
Chalong Rat	60	380,918.84
Udon Ratthaya	17	110,778.48
Burapha Withi	-	-
Bang Na-At Narong	-	4,400.00
Bang Phli-Suksawat	12	37,340.20
Total	261	1,413,470.76

Furthermore, EXAT also permitted the utilization of its areas for the public benefit in minor projects as follows:

- 1) The development of the area under Kanjanaphisek Expressway (Bang Phli-Suksawat) at the Puchao Saming Phrai toll plaza.
- 2) Fire drill under Chalong Rat Expressway at the Rama IX Aeration Pond.
- 3) The development of the the area under Kanjanaphisek Expressway (Bang Phli-Suksawat) at Srinakarin Road.
- 4) The development of the the area under Chaloem Rajadamri 84 Years of Age of His Majesty the King's Commemoration Expressway Link around the frontage road at the Puchao Saming Phrai toll plaza.

6.3.4 Public Policy

As a state enterprise under the Ministry of Transport, EXAT is responsible for constructing and providing expressway routes to alleviate traffic congestion and facilitate transportation in the Bangkok Metropolitan area and other provinces across the country and is committed to providing quality and safe service.

In fiscal year 2014, the Office of Transport and Traffic Policy and Planning (OTP) initiated the introduction of the common ticket system into public policy by collaborating with EXAT to develop a common ticket that would link different modes of public transportation and provide access to expressway routes as another option for increased convenience of the expressway users.

6.3.5 Ethical Image Promotion

Expressway service is not a highly competitive business. In addition, EXAT's marketing communication and activities must adhere to the rules and regulations and must be submitted to executives through the approval chain. As such, there is relatively little risk for unclear, incomplete, or distorted disclosure of information.

6.3.6 Environment Conservation

EXAT recognizes that its operation causes environmental impacts in different dimensions as it involves large constructions that cover huge areas at different locations. Therefore, noise and dust impacts have ranked the most common both during the construction phase and the operational phase. In addition, biodiversity in the areas around the construction of expressway routes needs to be taken into consideration as well if the operation expands to high-biodiversity areas.

Along the same vein, other activities carried out in support of EXAT's business must not neglect to uphold eco-friendly operations. Computer systems, technology, energy consumption, etc. that are involved in throughout a process, or even the fuel combustion of expressway users, all contribute to air pollution and greenhouse gas emissions, which are the major cause of climate change. Therefore, as a socially responsible enterprise, EXAT is well aware that the organization's clean image would be impossible to foster if the responsibility toward the surrounding environment was overlooked.

EXAT has taken a serious stance on its environment management and adopted ISO 14001: 2004 standard as its guidelines. In the fiscal year 2014, Si Rat Expressway and Bang Na-At Narong Expressway were ISO 14001: 2004-certified, demonstrating EXAT's environmental commitment. EXAT is also aiming to apply ISO 14001: 2004 to other expressway routes as well.

EXAT has also implemented social responsibility policy that reflects its serious commitment to becoming **a Low Carbon Society** and has formulated policy on the overall environment of the organization, announced as principles and guidelines for EXAT officials as follows:

- Placing special emphasis on the control of noise, dust, waste water from office use, traffic management and accidents.
- Ensuring safety of customers, employees and individuals related to the work on the expressway for clear objective, target and procedures, with regular review and improvements.
- Following legal requirements, restrictions, and standards related to environmental problems to prevent and reduce environmental impact on employees and workers, related persons and the public, around and at the workplace.
- Creating awareness among employees and workers and those involved in maintaining environmental quality, to ensure responsible use of energy and natural resource consumption.
- Promoting environmental policy among employees, workers, public and related individuals.

6.3.6.1 Management of EXAT Operation-related Impact

EXAT monitors environmental impact on a yearly basis and conducted two types of environmental quality measurement projects, namely

- 1) the environmental quality measurement of EXAT toll plazas and office buildings and
- 2) the environmental quality measurement along the expressway routes, which are conducted alternately each year. In the fiscal year 2014, EXAT carried out the environmental quality measurement of EXAT toll plazas and office buildings project, encompassing the measurement of the sound levels, air quality, and drinking water quality.

- **Noise impact**

EXAT measured the noise at altogether 19 measurement locations. The assessment was divided into two parts, namely.

- 1) the measurement of noise in general and
- 2) the measurement of noise within EXAT toll booths.

The measurement of noise in general was composed of the measurement of general noise in the environment (the equivalent continuous 24-hour sound level; L_{eq24hr}) and the noise level during employee working periods (the equivalent continuous 8-hour sound level; L_{eq8hr}). The details are shown in the table summarizing the averages of the equivalent continuous sound levels as follows:



Table 27 The equivalent continuous 8-hour sound levels (L_{eq8hr}), the equivalent continuous 24-hour sound level (L_{eq24hr}), and the maximum sound levels (L_{max})

Measurement sites	Equivalent Continuous Sound Levels (dB(A))				
	Equivalent continuous 8-hr sound levels			Equivalent cont. 24-hr sound level	Maximum sound levels ⁽⁴⁾
	06.00–14.00 hrs.	14.00–22.00 hrs.	22.00–06.00 hrs.		
1. Bang Na Toll Plaza	72.8	72.5	69.6	71.9*	98.7
2. Din Daeng Toll Plaza	75.9	75.5	73.4	75.1*	100.6
3. Dao Kanong Toll Plaza	72.1	71.6	69.2	71.2*	102.1
4. Rama IV-1 Toll Plaza	74.9	76.3	70.4	74.4*	109.1
5. Riverside Toll Plaza	74.4	74.3	71.1	73.5*	104
6. Suksawat Toll Plaza	73.7	71.9	69.2	71.8*	101.5
7. Ram Inthra Toll Plaza	73.3	72.6	70.2	72.2*	98.3
8. Yothin Patthana Toll Plaza	73.5	72.6	69.9	72.2*	102.5
9. Rama IX-1 Toll Plaza	66.4	66.4	61.0	65.3	94.6
10. Rama IX-2 Toll Plaza	71.6	72.6	69.3	71.4*	101.5
11. Chatuchote Toll Plaza	64.4	64.6	58.8	66.3	95.4
12. Chonburi Toll Plaza	71.2	70.8	67.7	70.2*	101.7
13. Bang Phli 2 Toll Plaza	81.1	80.8	76.7	79.9*	102.4
14. Bang Kaew 2 Toll Plaza	69.6	69.6	67.4	69.0	95.6
15. Bang Khun Thian (Exit 1)	66.9	63.6	61.6	64.7	93.9
	08.30–16.30 hrs.				
16. Chaloem Maha Nakhon Expressway Control Center.	70.9			69.2	94.5
17. Chalong Rat Expressway Control Center.	69.4			68.3	91.7
18. Burapha Withi Expressway Control Center.	65.4			64.8	93.4
19. Kanchanaphisek (Bang Phli-Suksawat) Expressway Control Center.	70.8			69.4	94.2
Standard levels	90.0⁽¹⁾			70.0⁽²⁾	115.0⁽²⁾

Notes ⁽¹⁾ The standard equivalent continuous 8-hour sound level as prescribed by the Labor Protection Act B.E.2541 (1998) concerning the prescription of standards for the administration and management of occupational safety, health and environment in workplaces involving heat, light, and sound, published in the Government Gazette, Volume 123, Part 123, dated March 6, 2004.

⁽²⁾ Environmental Board No. 15 (B.E. 2540) (1997) under the Enhancement and Conservation of National Environmental Quality Act B.E. 2535 (1992) concerning the prescription of general noise level standards, published in the Government Gazette, Volume 114, Part 114, dated April 3, 1997.

⁽³⁾* Exceeds the prescribed standard levels

⁽⁴⁾ The maximum sound levels from the highest equivalent continuous sound levels in the three measurement periods during the date and time of the measurement

The sound level measurement results revealed that most equivalent continuous 24-hour sound levels (L_{eq24hr}) exceeded the standard level, which was 70 dB(A), except RAMA IX, Bang Kaew, and Bang Khun Thian Toll Plazas. All the maximum sound levels (L_{max}) did not exceed the standard level, which was 115 dB(A), and all the equivalent continuous 8-hour sound levels (L_{eq8hr}) were also below the standard level, which was 90 dB(A).

EXAT recognizes the seriousness of the health impact of the employees on duty. Therefore, EXAT measured the time-weighted average sound level during the eight hours of work (TWA_{8hr})⁴ in the toll booths at every toll plaza where on-duty employees are working, as the equivalent continuous 24-hour sound levels (L_{eq24hr}) were measured around the toll collection station of every expressway while the equivalent continuous 8-hour sound levels (L_{eq8hr}) were measured outside the toll booths at every expressway during the employee working hours. The results of the measurement of the time-weighted average sound levels during the eight hours of work (TWA_{8hr}) revealed that all the sound levels were within the prescribed standard level of 90 dB(A)⁵ and, therefore, represented no impact on the health of operating employees. The equivalent continuous 24-hour sound levels that exceeded the standard level also posed no impact on the health of on-duty employees as each shift lasted only eight hours.

However, to protect employees from potential impact from the noise level that may exceed the standard, EXAT has provided personal hearing protection devices to reduce potential impact while on duty and implemented precautionary measures against noise impact as follows:

- 1) The sound level measurement both outside and inside the toll booths at toll collection stations is conducted every two years at high-risk sites, which are areas with heavy traffic, a large volume of visiting car users, 24-hour toll booths, and a large volume of large trucks.
- 2) Employees receive an annual hearing check-up. If any employee is found to be prone to hearing impairment, his or her working hours or working sites will be changed to an environment with a lower noise level and personal hearing protection devices such as ear plugs and ear muffs may be prescribed if necessary.

Furthermore, EXAT also attaches importance to the health impact in the communities in the vicinity of the expressways that are at risk of being affected by continuous loud noises, with an equivalent continuous 24-hour sound level (L_{eq24hr}) exceeding the standard level. If complaints are lodged by the surrounding communities, EXAT will proceed to install noise barriers and measure the noise level again after the noise barriers have been installed. In the fiscal year 2014, noise barriers were installed at two sites, worth 14,803,888 baht.



⁴ TWA_{8hr} = an eight hour time-weighted average (TWA)

⁵ The standard eight-hour time-weighted average as prescribed by the Labor Protection Act B.E.2541 (1998) concerning the prescription of standards for the administration and management of occupational safety, health and environment in workplaces involving heat, light, and sound, published in the Government Gazette, Volume 123, Section 23 A, dated March 6, 2004. The prescribed standard average sound level is 90 dB(A).

- **Particulate Matter**

EXAT carried out two types of air quality measurement, namely 1) the measurement of the ambient air quality and 2) the measurement of the personal air quality.

The measurements of the ambient air quality at 19 measurement sites revealed that the location with the most particulate matter of less than 10 microns in diameter (PM10) was the riverside area, which registered 0.168, 0.182, and 0.147 milligram/cubic meter during the three days of measurement, all of which exceeded the standard level (0.12 milligram/cubic meter).⁶

The site with the most particulate matter of less than 2.5 microns in diameter (PM2.5) is Bang Kaew 2 Toll Plaza, which registered 0.054, 0.067, and 0.089 milligram/cubic meter during the three days of measurement, all of which exceeded the standard level (0.05 milligram/cubic meter).⁷

The measurement of personal air quality at 15 measurement sites found no locations with the level of respirable dust (RD) exceeding the standard level (5.0 milligram/cubic meter). The measurements were conducted during working shifts⁸.

In addition, EXAT had proceeded to reduce particulate matters by adding cleaning routines for the toll plaza buildings and expressway routes and requiring employees to wear protective masks for work safety.

- **Greenhouse gases from operations**

EXAT has conducted research on building materials and equipment to find the most eco-friendly materials. The projects related to the reduction of greenhouse gas emissions that were carried out in the fiscal year 2014 were 1) a comparison of energy consumption and greenhouse gas emissions between warm mix asphalt and hot mix asphalt in the construction of asphalt concrete road surface and 2) a comparison of the amounts of fuels and toxic gas between the cash toll collection system and the electronic toll collection system, both in stop- and non-stop lanes (free-flow lane).



⁶ As prescribed by the Notification of National Environmental Board B.E. 2535 (1992), concerning the prescription of ambient air quality standards, published in the Government Gazette, Volume 121, Special Part 104 E, dated September 22, 2004.

⁷ As prescribed by the Notification of National Environmental Board No. 36 , B.E 2553 (2010) concerning the prescription of ambient air standards regarding particulate matter of less than 2.5 microns in diameter under the Enhancement and Conservation of National Environmental Quality Act B.E.2535 (1992), published in the Royal Government Gazette No. 127 Part 37 dated March 24, B.E.2553 (2010).

⁸ As prescribed by the Notification of the State Enterprise Relations Committee B.E. 2534 (1991) concerning working environment safety (chemical).

1) A comparison of energy consumption and greenhouse gas emissions between warm mix asphalt (WMA) and hot mix asphalt (HMA) in the construction of asphalt concrete road surface project.

EXAT applied Life cycle assessment of product in accordance with the ISO14040 standardization to assess environmental impact from the use of construction materials for expressway construction such as Asphalt concrete. Asphalt is an important material for rehabilitative pavement which requires energy. During the process, it releases Greenhouse Gas, the cause of Global warming in comparison with energy used and GHG emission for rehabilitative pavement between Warm Mix Asphalt (WMA) and Hot Mix Asphalt (HMA) to find ways to manage the environment.

From the research, summary on GHG emission can be summarized as follows:

Table 28 Greenhouse gas (GHG) emission from EXAT's significant operation

Key operations	Calculation method	GHG Emission
Hot Mix Asphalt concrete (HWA)*	CML Baseline 2000	222 Ton-CO ₂ e ⁹
Warm Mix Asphalt concrete (WMA)*	CML Baseline 2000	242 Ton-CO ₂ e ⁹
Traffic on Chalong-Rat Expressway during rush hour.	CML Baseline 2000	242 Gram-CO ₂ e/Km ¹⁰
Road resurfacing on 1 km of concrete.	Indicator-99	382 Ton-CO ₂ e ¹¹

Remarks * Value of GHG emission, starting from extraction of raw materials to production and transportation of Asphalt

2) A comparison of fuel consumption and pollution emitted between the cash toll collection system and the electronic toll collection system, both in stop and non-stop lanes (free-flow lane)

An Easy Pass lane is able to serve 850 vehicles per hour since drivers are required to slow down, which prompted the study to evaluate the effectiveness of an application of free-flow lane, using the Easy Pass system to compare with the existing use in two ways. One was on the traffic engineering aspects (speed at which a vehicle travels in passing through and time taken to pass the lane). The other aspect was environmental impact (fuel consumption, toxic gas by using GPS Probe Vehicle information for analysis.) It was found that the free-flow lane was more effective as drivers were able to drive at the speed of 60 km/hr which was 10 seconds faster than the Easy Pass lane. It helps reducing fuel consumption and emission of toxic gas by 20 percent compared to Easy Pass (outside rush hour). When the results were used in calculating expenses, it was found that over the next 10 years the free-flow lane will help save fuel consumption by 19.09 percent and reduce accumulation of toxic gas by 36.54 percent when compared with Easy Pass.

⁹ Watchara Surawong, Ekarin Luengwilai and Sakda Panwai: Comparison of energy use and Greenhouse gas emission from the construction of Asphalt road surface between Warm Mix Asphalt (WMA) and Hot Mix Asphalt (HMA) by using Evaluation of Product Life Cycle principle, Bangkok: Expressway Engineering System Research and Development, EXAT, 2013

¹⁰ Watchara Surawong, Nirand Kongrit, and Jeema Sorulump: [Evaluation of Product life Cycle in road surface renovation](#), Bangkok.

¹¹ Watchara Surawong, Nantawan Pitakpanich, Nirand Kongrit and Sakda Panwai: [Evaluation of Environmental Impact as a result of traffic on Chalongruch Expressway using Product Life Cycle Analysis](#), Bangkok.

Furthermore, EXAT has also attached significance to an indirect reduction of energy release. Although EXAT is not the direct greenhouse gas emitters, it has indirectly contributed to the reduction of the air pollution in the areas under EXAT's responsibility through a development project of traffic report via a smart phone application (EXAT ITS), which advises best routes and, in turn, helps reduce fuel consumption the expressway users.

- **Biodiversity**

For the construction of Khatu—Patong, Phuket, Expressway, EXAT studied the engineering, economic, and financial feasibility as well environmental impact over a duration of 15 months from February 14, 2013 to September 20, 2014. The project will be an elevated expressway route with a six-lane tunnel (three per each direction) stretching approximately 3.9 kilometers and pass through Nakkerd Mountain.

The construction route will pass through four environmental protection zones, namely Zone Nos. 5, 6, 7, and 8, as defined in the Notification of the Ministry of Natural Resources and Environment on the prescription of environmental protection zones and measures in Phuket B.E. 2553 (2010). Certain parts of the tunnel of the expressway will pass under the forested area of Nakkerd, mountain a national reserve forest under the Ministerial Regulations no. 621 B.E. 2516 (1973), and some parts will pass under 1BR and 2 watershed zones, as specified in the Notification of the Cabinet on the classification of watershed areas in the Southern Region B.E. 2532 (1989). EXAT has submitted a petition for the project approval to the Committee on Environmental Protection Supervision and Monitoring in the Environmental Protection Zones, Phuket chaired by the Governor of Phuket. Currently, the feasibility study of the project has been completed, and EXAT is submitting the environmental impact analysis of the project to the Office of Natural Resources and Environmental Policy and Planning (ONEP) for consideration in the fiscal year 2015.

This project presents three major environmental factors that EXAT has studied and taken into account in its assessment of the project's potential impact on biological resources, namely forest resources and watershed class; wildlife resources; and marine ecology. The findings showed that the project posed a low level of impact on biological resources because the route that passes into the reserves involves a tunnel that passes under those areas.

6.3.6.2 Management of Impact from Other Operations

In addition to direct impact that may arise during the pre-construction, construction, and operational phases, other system support activities may also create indirect environmental impact as well.

As for resource management, it can be classified by the amount of resource use and impact. So far, resources involved in EXAT operation that should receive specialized management are namely energy, water resource, and office supplies utilized in support activities.



- **Emissions, Effluents, and Waste**

EXAT has established a green procurement policy and selected products and suppliers who also carry out environmental policy. Examples of these efforts include the procurement of fire extinguishers containing non-ozone depleting substances in lieu of previous ones that contained R22 (HCFC-22)¹², the use of expressway technology to increase speed and reduce energy consumption through an intelligent traffic system or a mobile phone application, and the procurement of environmentally-friendly electronic devices for use in the organization. In the fiscal year 2012, a budget was allocated to purchase computers certified by EPEAT GOLD, a rating system of eco-friendly computers and electronic device. EXAT has since been replacing existing computers and electronic devices to comply with the standard.

As for the management of waste and garbage generated by EXAT operations, EXAT has acted in compliance ISO 14001: 2004 Environmental Management Standard and has sorted waste into three types, namely Garbage, Rubbish, and hazardous waste, in its offices and on every expressway to be delivered and managed by the Bangkok Metropolitan Administration in a proper manner.



- **Electricity**

EXAT has attached significance to energy management, including both electricity and fuels, and such resources are extremely vital to the service provision of EXAT. However, the use of electrical power to street lamp and traffic signs along expressways is necessary and also very important for the safety of travelers.

The use of electrical power is required in EXAT buildings and expressways, which include 3 office buildings, 3 toll plaza buildings, 4 expressway control centers, and all the expressways. As electrical power and fuels, when combined, accounted for more than 90 of EXAT's energy and utilities expenses, it is necessary that goals and measures must be implemented to reduce energy consumption.

Currently, EXAT has an energy management team responsible for the reduction of energy consumption within the organization, which has started working on the head office, located at Chatuchak, as the first site. The operation may be extended to every office building, toll plaza building, and expressway in the future.

In addition, a team tasked with energy consumption reduction has been appointed to achieve a 10% reduction in the electricity and fuel consumption. This is because if these expenses are increased by over 15%, the Bureau of Budget will cut the budget of the next year. In the fiscal year 2014, EXAT conducted a seminar for EXAT officials, allowing them to study projects and formulate energy conservation plans for EXAT in order to raise public awareness, share knowledge, and promote employee participation in energy conservation. The activity was held on April 21, 2014.

¹² A Class-1 controlled substance in Appendix C of the Montreal Protocol on ozone-depleting chemicals



Energy Conservation Policy at EXAT Head Office

1. Operate and develop appropriate energy management systems by incorporating energy conservation in its functional operations in line with the legal requirements and other restrictions.
2. Improve effectiveness of energy resource consumption on a regular basis to ensure that it is appropriate for the work, technology and good operational guidelines.
3. Determine plans and targets for energy conservation each year and communicate them to employees to create better understanding and to put them into practice.
4. Energy conservation is the responsibility of every employee, and workers must follow the measures, monitor, and report in accordance with the Energy Conservation Promotion Act (2nd revision) B.E. 2550 (2007).
5. Create employee awareness of energy conservation and responsible use of energy.
6. Provide necessary support including human resources, budget, working hours, training and participation in giving recommendations for energy development.
7. Conduct annual review of policy, goals, and operational plans for energy consumption.

Announced in 2012

At the Head Office, in the fiscal year 2014, the Head Office energy consumption team implemented measures to reduce electrical power consumption as follows:

Table 29 Energy saving measures

Measures	Units	Targets ⁽¹⁾ (kWh/year)	Savings ⁽²⁾ (kWh/year)	Energy ⁽³⁾ (GJ/year)
1. Switching from T8 light bulbs to LED light bulbs	 256 bulbs	9,232.39	8,698.51	31.31
2. Switching to high-efficiency air-conditioners	 108 units ⁽⁴⁾	300,697.05	111,227.32	400.42

Notes

⁽¹⁾ The total targets are equivalent to 13.74 percent.

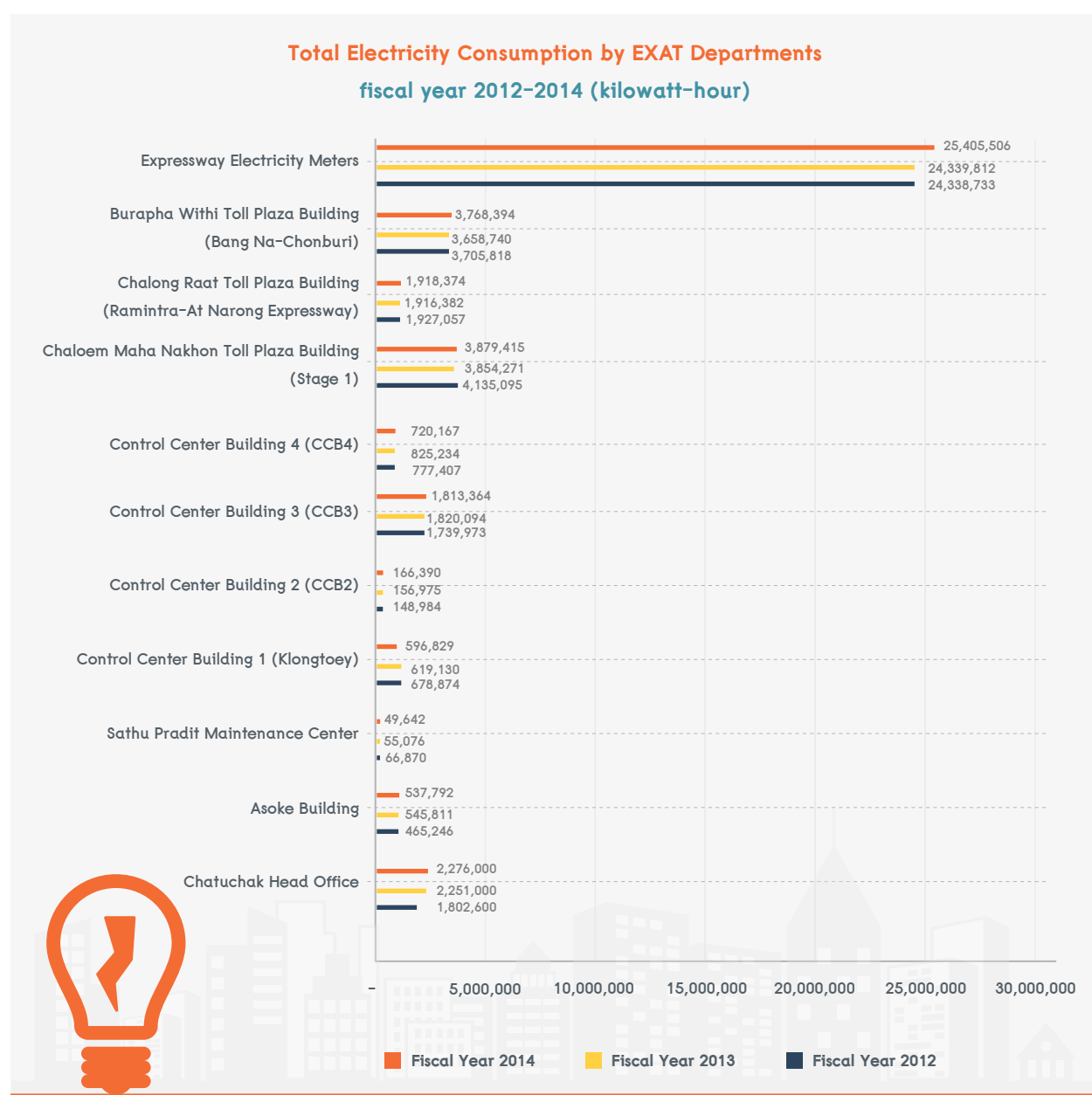
⁽²⁾ The total savings are equivalent to 5.318 percent.

⁽³⁾ One kWh is equivalent to 0.0036 GJ.

⁽⁴⁾ The installation is finished for 52 units.

At Chatuchote toll plaza building, a model green toll plaza for energy and environment conservation, a solar-powered electricity generation system has been installed. In addition, it has also switched to the LED fluorescent lighting system and installed pull-switches, along with two types of solar cell panels, namely mono-crystalline and CIGS panels, totaling 5.7 kW, to power the lighting system. It has been found that the measure can reduce as much as 14,000 kWh, or an equivalent of 56,000 Baht or 7,000 kilograms of reduced carbon dioxide emission.¹³

In addition, a study showed that replacing the existing size 36 T8 fluorescent light bulb with 51, 18W LED fluorescent light bulbs at One Stop Service building can save 64 percent of energy, reducing electrical consumption by 2,900 kWh, or an equivalent of 12,000 Baht/year or 1,500 kilograms of reduced carbon dioxide emission.¹⁴

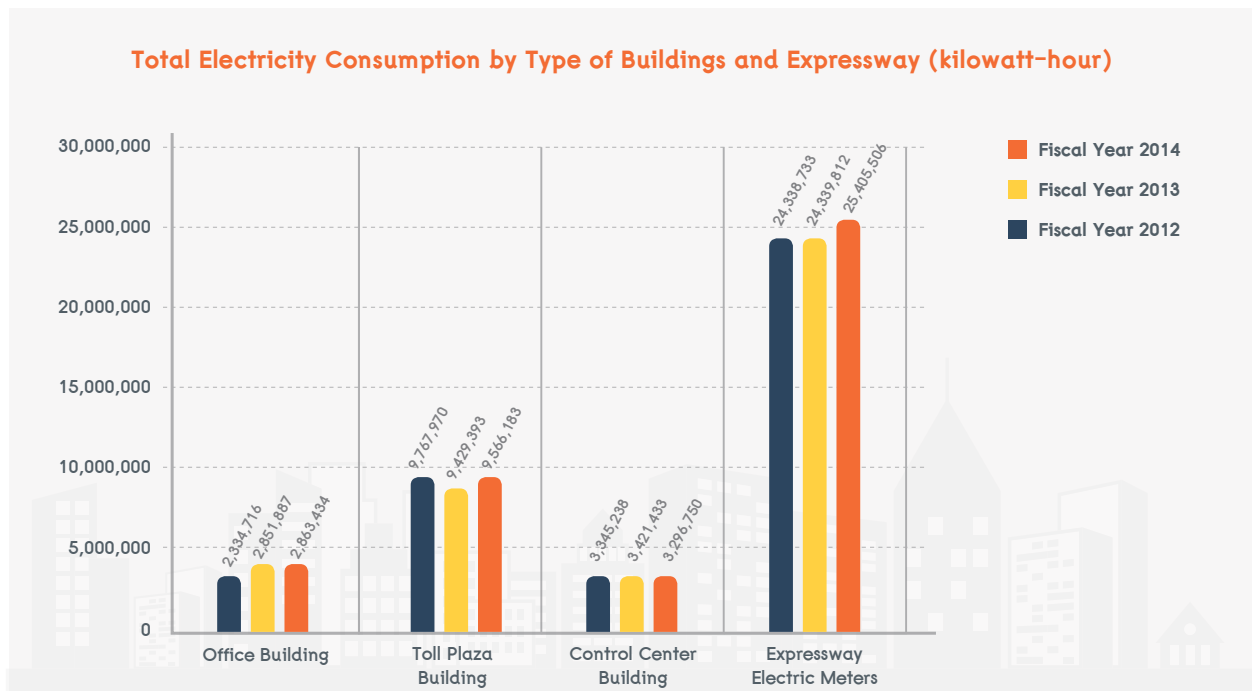


(Data as of September 30, 2014)

Figure 16 Total electricity consumption by EXAT department, fiscal year 2012-2014

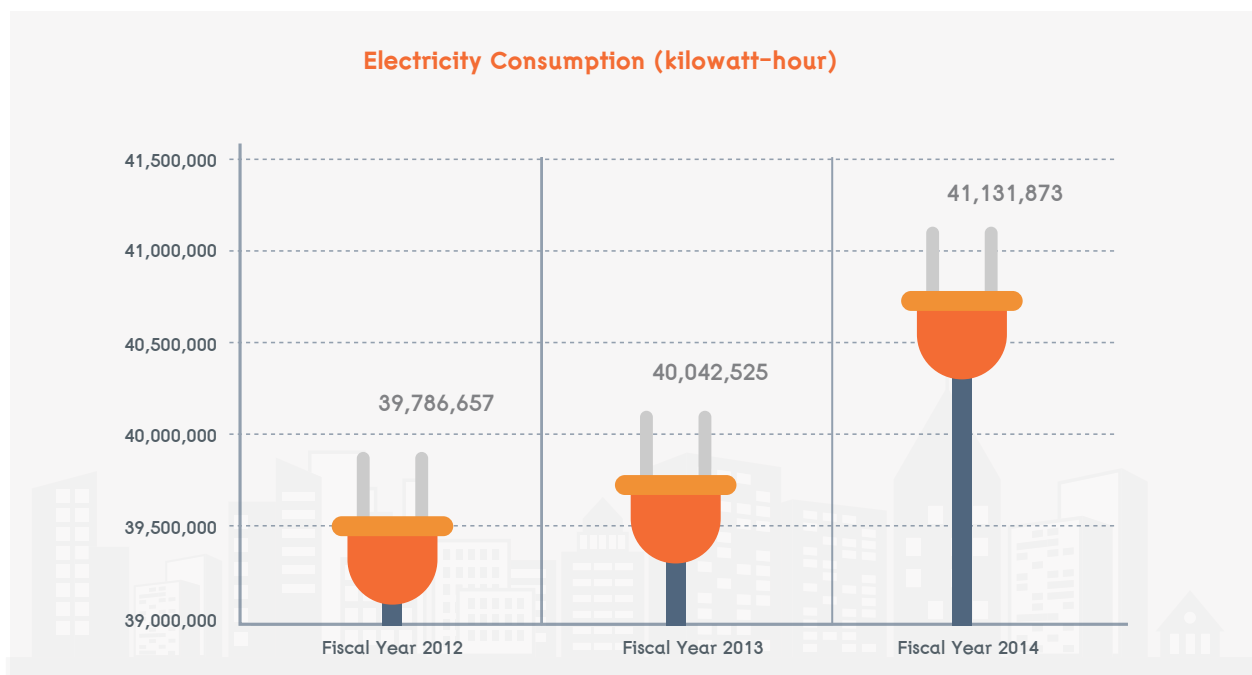
¹³ Data from the Expressway System Engineering Research and Development Division.

¹⁴ Data from the Expressway System Engineering Research and Development Division.



(Data as of September 30, 2014)

Figure 17 Total electricity consumption by type of buildings and expressways, fiscal year 2012-2014



(Data as of September 30, 2014)






Figure 18 Organization-wide's electricity consumption, fiscal year 2012-2014

An observation of data on electrical power consumption also revealed that EXAT's consumption has steadily risen each year. In the fiscal year 2014, the organization-wide consumption of electrical power was 41,131,873 kWh (an equivalent of 148,075 GJ of energy), a 2.72 percent rise from that of the fiscal year 2013. This was due to the installation of the server room, which was part of EXAT's intelligent traffic system support operation and required cooling with 24-hour air-conditioning, resulting in a higher electrical power consumption in the fiscal year 2014.

- **Fuel consumption**

In traffic service, rescue and maintenance of equipment, machinery, and vehicles for use in the organization all require fuels to operate. In the fiscal year 2014, EXAT recorded the consumption of fuels in its operation as detailed below:

Table 30 Fuel consumption for vehicles, fiscal year 2014

Fuel consumption for vehicles, fiscal year 2014		
Type	Quantity	Energy value (Gigajoules)*
 Diesel	1,013,367.00 Litres	36,481.21
 Gasohol 95	257,301.04 Litres	8,490.93
 Gasohol 91	342,177.16 Litres	11,291.85
 Gasohol E20	11,484.19 Litres	367.49
 NGV	4,186.33 Litres	6.49
Total		56,637.98

(Data as of September 30, 2014)

Remarks * Each fuel type in quantity can be converted to energy value as follows:

- Diesel : 1 Litre equals to 0.036 Gigajoules
- Gasohol 95 and Gasohol 91 : 1 Litre equals to 0.033 Gigajoules
- Gasohol E20 : 1 Litre equals to 0.032 Gigajoules
- NGV : 1 Kilogram equals to 0.00155 Gigajoules

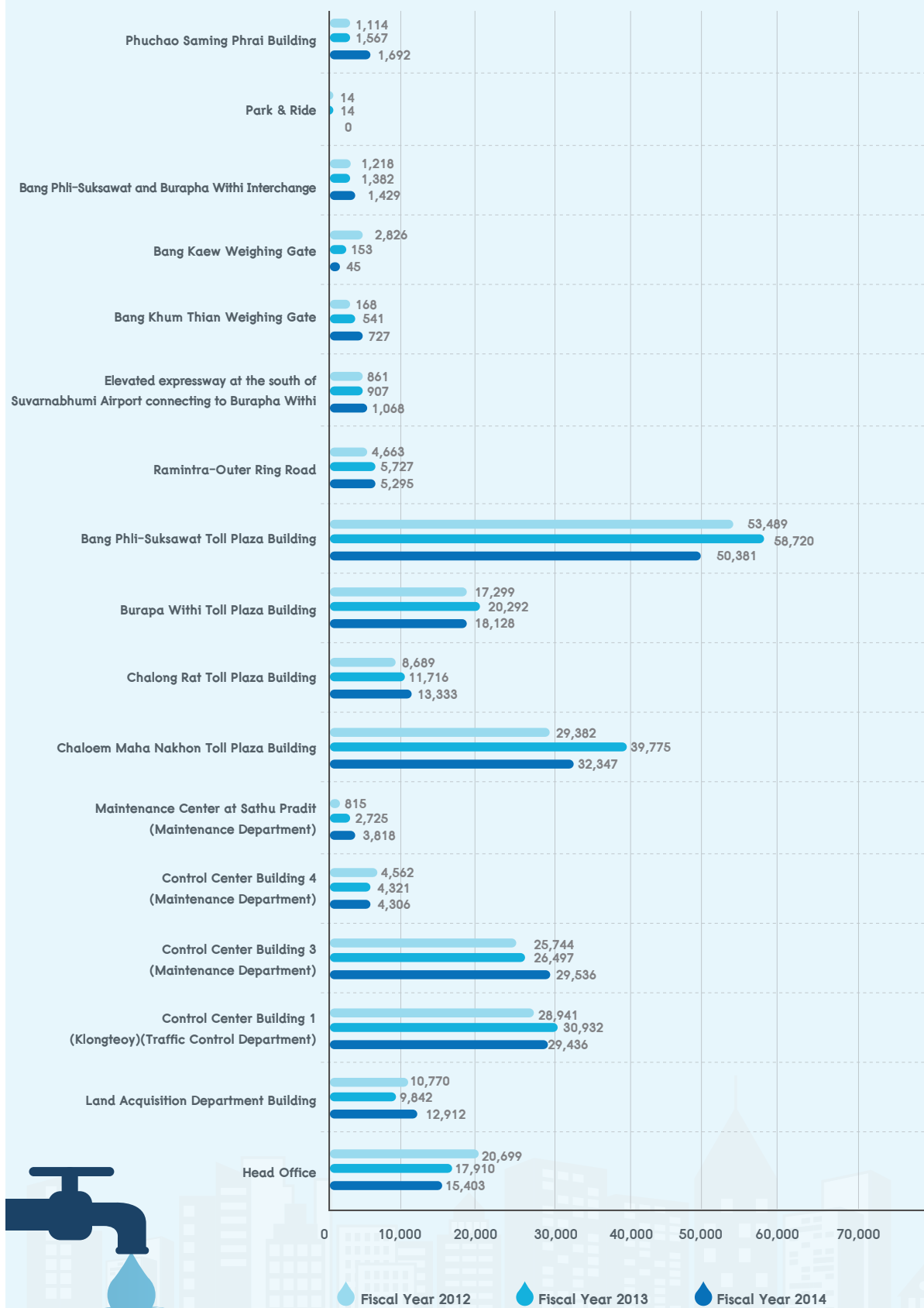
- **Water resource consumption**

Water is a resource that presents a major sustainability issue globally and is no less important than climate change as water is crucial for life. Some areas might face water shortages, similar to certain regions of Thailand.

In EXAT operations, water may not be as important as electrical power as it does not form an integral part of the operations and is only used for consumption by EXAT employees. Therefore, EXAT has yet to formulate concrete policy on water.

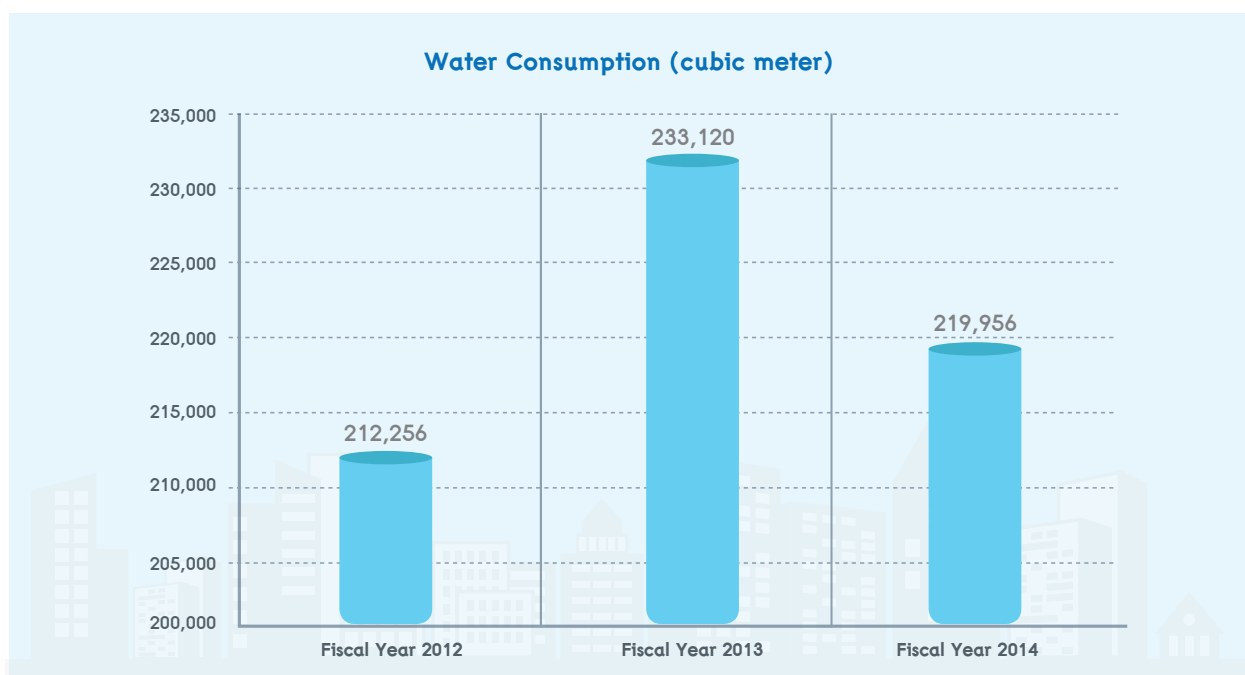
However, EXAT has consistently monitored water consumption at EXAT's different operational sites and observed water consumption behavior of EXAT employees. The gathered data will be part of consideration if an operation will take place in an area at risk of water shortage and will be used in water management in the future. Currently, all the water for consumption within EXAT is from the municipal water supply.

Water Consumption (cubic meter)



(Data as of September 30, 2014)

Figure 19 Water consumption by sites of operations, fiscal year 2012-2014



(Data as of September 30, 2014)

Figure 20 Water consumption, fiscal year 2012-2014

In the past three years (2012-2014), EXAT's water consumption rose slightly due to the expansion of its operational scope and an increase in personnel. However, EXAT will not be negligent toward water usage and will utilize water to its fullest.

- Use of Expressway Materials and Office Supplies**

Each year, asphalt is used the most in maintenance. In the fiscal year 2014, the asphalt usage was as follows:

Table 31 The amounts of asphalt used in the fiscal year 2014

Uses of asphalt	Amount (tons)
Improvement of the road surface of Kanjanaphisek Expressway (Bang Phli-Suksawat).	7,377.00
Maintenance of the road surface of Chaloem Nakhon Expressway.	17.00
Maintenance of the road surface of Chalong Nakhon Expressway.	25.00
Improvement and maintenance of the road surface of Rama IX Bridge.	1,851.37
Total	9,270.37




(Data as of September 30, 2014)

In addition, EXAT has utilized asphalt concrete as recycled materials by collecting the asphalt scraped from the traffic surface under maintenance by contractors (under the Rama IX Bridge on the Phra Nakhon side and under the expressway control center (CCB3)). When needed, the scraped asphalt is mixed with latex and other materials in the mixer of the Expressway Maintenance Division. Once completed, the resulting material can be used to repair potholes or stored in bags to be used as cold mix asphalt, reducing resource waste. In the fiscal year 2014, EXAT use 1.5 tons of asphalt concrete to produce the recycled material for use within the organization.

As for office supplies, the most used within EXAT was paper supplies. It is found that the top 3 paper supplies that have the highest total value are thick A4 copy paper 80 grams, thick recycled A4 paper 80 grams, and large 300m double-ply toilet paper rolls.

However, when considering the used amounts, it is found that 80mm. thermal paper 58 grams is used in the largest quantity¹⁵. In the fiscal year 2014, 135,000 rolls were used, an equivalent of 3,858.14 kilograms in weight.¹⁶

Table 32 Amount of office supplies used, fiscal year 2012-2014

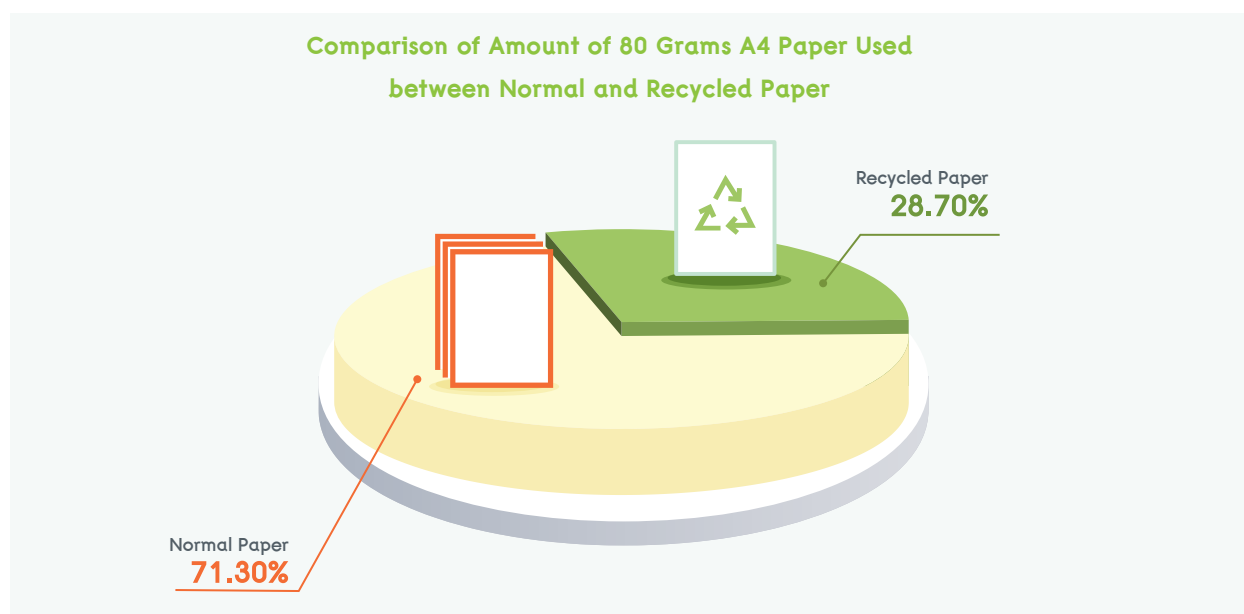
List of Office Supplies	Volume (kilograms)		
	Fiscal Year		
	2012	2013	2014
Thick recycled A4 paper 80 grams 	25,792.50	25,365	23,112.50
Thick A4 paper 80 grams 	51,137.50	56,017.50	57,405.00
Large double-ply toilet paper with the length of 300 meters/roll 	19,572.30	21,395.70	25,675.20

Remarks comparison of weight from one large roll of toilet paper weighing 0.9 kg and one ream of A4 weighing 2.5 kgs.

¹⁵ Refers to Chatuchak warehouse.

¹⁶ Calculated from the approximate weight of the paper. 35 rolls of 80mm. thermal paper 58 gsm weigh one kilogram.

In the fiscal year, EXAT implemented a green procurement policy and purchased recycled A4 paper 80 grams for use. The amount was an equivalent of 28.70% of the amount of the total A4 paper supplies.



**Figure 21 Comparison of amount of use between normal and recycled 80 grams
A4 paper, fiscal year 2014**

Chalong Rat Expressway Control Center Building has implemented measures to reduce the use of A4 paper in compliance with ISO 14001: 2004 Environmental Management Standard by raising awareness among EXAT employees and compiling summaries of the amounts of requisitioned A4 paper from every office.

6.3.7 EXAT's Openness to Public Opinion

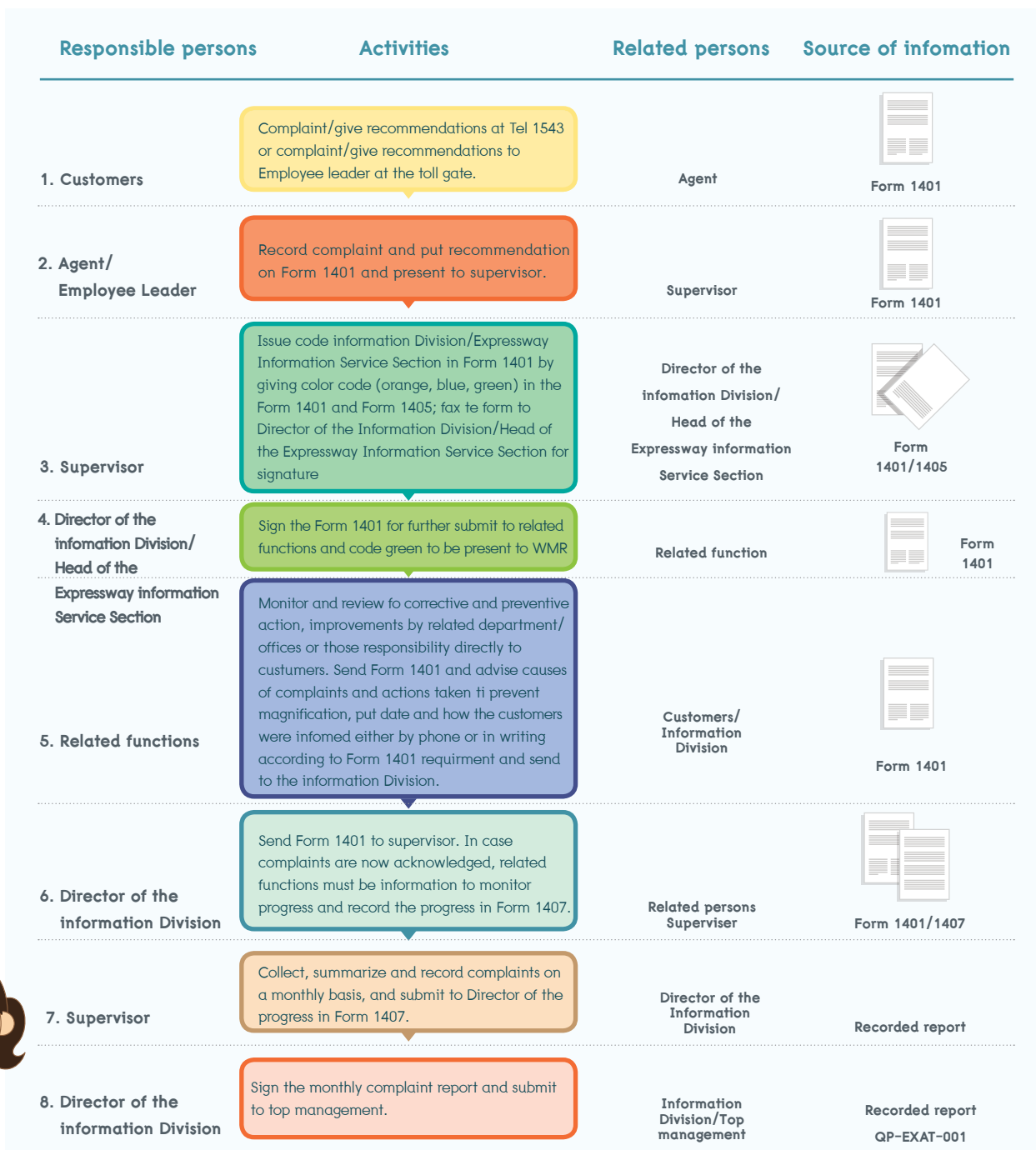
EXAT put participation from communities and society at large first. As opinion from communities is what EXAT overlooks, EXAT has provided channels for public opinion, suggestions, or comments all through the pre-construction, construction, and operational phases.

For every EXAT expressway project, opinion of stakeholders must be surveyed first. This public participation process conforms to frameworks and guidelines set by the Thai Constitution B.E. 2540 (1997), the Regulations of the Office of the Prime Minister on Public Consultation B.E. 2548 (2005), as well as the guidelines for Public Engagement and the Social Impact Assessment regarding Environmental Impact Assessment of the Office of Natural Resources and Environmental Policy and Planning (ONEP) B.E. 2549 (2006). The target groups for consultation and public participation with the civil society sector, based on the stakeholder groups that may be affected in every phase of the project including relevant organizations on different levels, can be categorized into the seven following groups:

- 1) Individuals affected by the project
- 2) Agencies responsible for compiling environmental impact assessment reports
- 3) Agencies responsible for reviewing environmental impact assessment reports
- 4) Governmental organization at different levels
- 5) Private environmental organizations, private development organizations, local education institutions and universities, and independent scholars.
- 6) The press
- 7) The general public

EXAT has also formulated measures to prevent and resolve potential impact that may arise during every phase of an operation, including remedies and cooperation with the communities around the areas under EXAT's responsibility. Affected individuals or those with suggestions and comments may contact EXAT Call Center 1543 around the clock as well as other online communication channels such as Facebook and Twitter, or contact other public service organizations.

To ensure prompt, prudent, and comprehensive complaint resolution, EXAT has defined clear problem resolution procedures to guarantee that complaints or suggestions from affected parties are listened to, responded to, and resolved in a timely manner in accordance with the Procedure for Information Service, Grievance Mechanism and Suggestion prescribed by ISO 14001 Environmental Management Standard; and the quality procedures prescribed by ISO 9001 Quality Management System. The aforementioned complaint handling procedures are specified in the manual for caring for communities in the vicinity expressway right-of-way.



Reference : ISO 9001 Quality Management System, Quality Management Procedure (2012) p.3.

: ISO 14001 Environmental Management Standard, Procedure for Information Service, Grievance Mechanism and Suggestion, p.5

Figure 22 Complaint handling procedures

In the fiscal year 2014, EXAT received altogether 26 comments and suggestions through different channels and 89 complimentary comments. However, there were still complaints lodged by the communities living around expressway right-of-way and other stakeholders, as detailed below.

Table 33 Statistics on complaints received in the fiscal year 2014

Complaints		Nos. of complaints			Descriptions
No.	Issues	Case(s)	Person(s)	%	
1.	Performance of EXAT employees				Most complaints concerned inconvenience or problems regarding the use of Easy Pass Card. All the complaints were resolved.
	• Toll collection	8	7	3.43	
	• Rescue/Communication	2	2	0.99	
	• Traffic management	-	-	-	
	• Call Center and operators	2	2	0.99	
	• Others	-	-	-	
	Total	12	11	-	
2.	Impact from expressway construction				Most complaints concerned the noise, dust, air pollution, vibration, and privacy issues caused by the construction of Si Rat-Bangkok Outer Ring Road Expressway and the construction of the rest area at Prachacheun Toll Plaza (outbound). Two of the complaints were pending in the fiscal year 2014.
	• Kanchanaphisek Expressway (Bang Phli-Suksawat).	-	-	-	
	• ChalongRat Expressway (Ramintra-Outer Ring Road).	-	-	-	
	• Interchange between Bang Phli-Suksawat and Industrial Ring Road.	-	-	-	
	• Others	7	6	2.94	
	Total	7	6	-	
3.	Land				Most complaints were general issues concerning the use of areas around expressway both in the responsibility of EXAT and in the responsibility of BMA. All the complaints were resolved.
	• Problems at entrance/exit ramps	-	-	-	
	• Trespassing of expressway area	8	5	2.45	
	• Others	18	13	6.37	
	Total	26	18	-	
4.	Inconvenience or distress caused by the construction and use of expressways				Most complaints concerned toll collection, followed by traffic management on expressways and toll booths, respectively. EXAT has continuously rectified the inconveniences and distress. However, 15 complaints remained unresolved in the fiscal year 2014.
	• Lighting	8	4	1.96	
	• Poor road surface	7	7	3.43	
	• Noise	14	13	6.37	
	• Signs	18	18	8.82	
	• Traffic management on expressway	28	24	11.76	
	• Toll collection system	48	39	19.21	
	• Toll collection booths	21	21	10.29	
	• Others	18	18	8.82	
	Total	160	144	-	
5.	Others	19	25	12.26	11 complaints are pending and in the resolution process.
	Total	19	25	-	
	Grand Total	224	204	100	

6.3.8 Other Corporate Social Activities

In addition to carrying out responsible operations to provide **"service excellence,"** develop **"advanced innovation,"** and foster the **"image of transparency,"** EXAT has also put in place CSR-after-process beside its usual operations.

6.3.8.1 Short-term Corporate Social Responsibility Projects and Activities

In the fiscal year 2014, EXAT hosted corporate social responsibility activities/projects for society and every stakeholder and promote environmental and social development in a concrete manner alongside the growth of the organization. In the fiscal year 2014, the activities/projects that were held are as follows:

- 1) Bikes for Thai Children from EXAT
- 2) EXAT Magic Box for the Earth
- 3) Songkran Festival Activity
- 4) Sharing Smile with Kids along Expressways on the National Children's Day
- 5) Expressway for the Youths
- 6) Love Sharing on the National Senior Citizens' Day
- 7) Fighting against Cold Wind with EXAT
- 8) Sport competition between EXAT supervisors and employees
- 9) Book and Educational Equipment Donation for Kindergarten-High School Students
- 10) Dream-weaving for Thai Kids

EXAT has a future initiative to create bike lane networks in the expressway areas, which will combine EXAT's existing resources with its expertise in road construction, vision, social responsibility, LCS, and its commitment to solving traffic problems, and create a corporate social responsibility that benefits the general public at large.



"Bikes for Thai Children from EXAT"



"Expressway for the Youths"



"EXAT Magic Box for the Earth"



"Dream-weaving for Thai Kids"

6.3.8.2 Long-term Corporate Social Responsibility Projects and Activities

This is another project of EXAT that utilizes the expressway areas and develops them into bike lane networks for the public benefit. The project is in line with BMA's policy that promotes bicycle use in order to alleviate the current traffic congestion problem.

In addition, bicycles are a mode of transportation that does not generate pollution, which corresponds with EXAT's corporate social responsibility vision **"Low Carbon Society."**

EXAT has studied the engineering, economic, and financial feasibility to formulate the bike lane networks in the expressway areas development model scheme. EXAT is aware that a number of expressways networks pass through the metropolitan area and link it to the suburban areas. The physical characteristic has to potential to undergo a development to create bike lane networks that offer convenient and safe routes that efficiently link to other public transport systems.

The project's pilot route under the initiative **"Bicycle Expressway"** runs under the expressway along Ramintra Road, Rama IX Road, and Ratchadaphisek Road. Four public opinion surveys found that over 90 percent of the informants agreed with and approved of the EXAT project. Once the project has come to fruition, the surrounding areas will look beautiful and the network will create transport system connectivity for the convenience, safety, and benefit of the general public.







07

Engagement in Corporate Social Responsibility Practices

of the Governor of Expressway Authority of Thailand



- For 42 years EXAT has recognized the importance of providing fast, effective and convenient services for its customers. In doing so, international standards have been adopted to assist in the development of its service standards and quality as well as the expressway network development to correspond with the needs of its customers. At the same time, EXAT's operations are in line with today's economic growth, placing special emphasis on Corporate Social Responsibility.

- Under the leadership of its Governor, Mr. Aiyanat Tinapai, EXAT is committed to moving forward the company's strategy and operations under the vision of **"Choice of value, advanced development, and care for environment."** In fiscal year 2014, a number of Practices and projects were organized to strengthen the company's competitiveness, its corporate social responsibility and environmental missions in response to the demands of every group of stakeholders in the community. These included organized visits, seminars and social contribution activities as well as interactive meetings. The CSR-in-process was integrated into every activity, all of which received full participation from the management and staff of the company.

- CSR with external organizations : EXAT together with K-Bank organized a project **"free pass on expressway with K-Bank credit"** at Chatuchote, Chalong Rat, Din Daeng, Bang Na and Suksawat toll plaza. EXAT paid toll fees for 3,000 vehicles at each toll plaza, for a total of 12,000 vehicles.
- In preparation for the official joining of the AEC, EXAT organized a seminar for the press under the heading **"42 years EXAT towards ASEAN"** to promote greater learning and understanding of EXAT's operations to arrange a one stop service at every border gate.



Activity **"free pass on expressway with K-Bank credit"**



Activity **"42 years EXAT towards ASEAN"**

- EXAT launched an Easy Pass Fast Service Center for Easy Pass customers at the rest area of PTT Gas Station on Chaloen Maha Nakhon expressway (outbound). Some 27 customers on average attended the service center on a daily basis. EXAT also offered special service during holiday periods by providing a special public service unit to facilitate traffic and safety of travelers. Mobile Application EXAT ITS is available for travelers to access traffic information on the expressway on mobile devices.
- EXAT together with Hanshin Expressway Company Limited organized a technology demonstration "Ninja-tech" at the Youth Center Rama IX Bridge, Rajburana (under the Rama IX Bridge) for the maintenance of elevated expressway structures and large bridges. This technology will allow fast access to points of inspection and EXAT is in the process of adopting such technology for future use.
- An emergency exercise was organized at Chiang Rak toll plaza (inbound) of Udon Rattaya expressway to develop experience and skills among its personnel to handle severe accidents on the expressway. EXAT aims to increase personnel efficiency, traffic management as well as coordination and communication. Regular exercises will help enhance their readiness and skills.
- EXAT support for the **Bike Rally "Wat Wang View"** (Temples, Palaces, Scenery) organized in Ayutthaya province to promote the use of bikes for travel which in turn helps reduce environmental pollution and fuel consumption. Cycling is a good exercise that promotes good health.



Bike Rally "Wat Wang View"



EXAT also offered special service during holiday periods

It is apparent that the EXAT Governor has taken part and/personally participated in all the activities and projects organized in 2015 which place special emphasis on the company's stakeholders. These activities also showed EXAT's strong commitment towards social responsibility among its employees throughout the organization. They are an important part of the social development towards sustainable growth, in parallel with the company's future expansion.



08

Awards of Success



National Public Service Award of 2014 from Office of the **Public Sector Development Commission: OPDC**

Special Prize on Creativity and Design from Thailand Inventors' Day 2014 organized by **Office of National Research Council of Thailand**



Prime Minister Road Safety Awards (2013) from "**11th Thailand Road Safety Seminar : Road User Rights and Road Safety Standard**"

Award-winning Prize on "**Development and Integration of Intelligent Transportation System for Expressway under ITS Center**" (2013) from 11th National Seminar on Road Safety "**Thai People's Rights and Road Safety Standard**"



Technical Research Award (2013) from 11th National Seminar on Road Safety "**Thai People's Rights and Road Safety Standard**"

Sustainability Report Award presented by the CSR Club of Thai Listed Companies Association, Stock Exchange of Thailand (SET) and Thaipat Institute in recognition of its outstanding Sustainability Report for the year 2014





09

GRI Content Index



The report has been prepared according to the GRI G3.1 Guidelines, at Application Level **A**

Standard Disclosures

Profile Disclosure			Reported	Page in AR	Page in CSR	Direct Answer/ Explanation	Year to Report
1.	Strategy and Analysis						
	1.1	Statement from the most senior decision maker of the organization (e.g., CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy.	<div></div>	-	1-3		
	1.2	Description of key impacts, risks, and opportunities.	<div></div>	-	1-3		
2.	Organizational Profile						
	2.1	Name of the organization.	<div></div>	-	Cover Page		
	2.2	Primary brands, products, and/or services.	<div></div>	-	5-7		
	2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	<div></div>	-	25-26		
	2.4	Location of organization's headquarters.	<div></div>	-	5		
	2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	<div></div>	-	-	Covers operation in Thailand	

Remarks :

AR – EXAT Annual Report 2014, CSR – EXAT CSR Report 2014

Core Indicators □ Additional Indicators

● Fully Reported ● Partially Reported ○ Not Report: Reporting organization need to provide reason for omission, either 1) Not Material, 2) Not Available 3) Not Applicable, or 4) Proprietary Information.

Standard Disclosures (Cont.)

Profile Disclosure			Reported	Page in AR	Page in CSR	Direct Answer/ Explanation	Year to Report
	2.6	Nature of ownership and legal form.	●	-	5, 58		
	2.7	Markets served (including geographic breakdown, sectors served, and types of customers/ beneficiaries).	●	-	5-7		
	2.8	Scale of the reporting organization.	●	4-5	5		
	2.9	Significant changes during the reporting period regarding size, structure, or ownership.	●	-	-	No significant change	
	2.10	Awards received in the reporting period.	●	-	83		
3. Report Parameters							
Report Profile							
	3.1	Reporting period for information provided.	●	-	19	Fiscal Year 2014 (October 2013 - September 2014)	
	3.2	Date of most recent previous report (if any).	●	-	-	Fiscal Year 2013 (October 2012 - September 2013)	
	3.3	Reporting cycle (annual, biennial, etc.)	●	-	19	Annually	
	3.4	Contact point for questions regarding the report or its contents.	●	-	22		
Scope and Boundary							
	3.5	Process for defining report content.	●	-	20-22		
	3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers).	●	-	19	All EXAT's operations	
	3.7	State any specific limitations on the scope or boundary of the report	●	-	-	Only primary data is collected from internal stakeholders. And, the reporting process doesn't cover all of EXAT's supply chain	

Remarks :

AR - EXAT Annual Report 2014, CSR - EXAT CSR Report 2014

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Standard Disclosures (Cont.)

Profile Disclosure			Reported	Page in AR	Page in CSR	Direct Answer/ Explanation	Year to Report
	3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	●	-	-	The reporting process doesn't cover all of EXAT's supply chain.	
	3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report.	●	-	-	Calculation of GHG emission, conversion of energy unit into joules.	
	3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	●	-	-	No significant change.	
	3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	●	-	-	More involvement from higher executive level in defining report content process.	
GRI Content Index							
	3.12	Table identifying the location of the Standard Disclosures in the report.	●	-	85-102		
Assurance							
	3.13	Policy and current practice with regard to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided. Also explain the relationship between the reporting organization and the assurance provider(s).	●	-	-	No external assurance.	

Remarks :

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Standard Disclosures (Cont.)

Profile Disclosure			Reported	Page in AR	Page in CSR	Direct Answer/ Explanation	Year to Report
4.	Governance, Commitments, and Engagement						
	Governance						
	4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	●	-	25, 26-27		
	4.2	Indicate whether the Chair of the highest governance body is also an executive officer.	●	-	27	The Governor is not the Chairman of the Board of Directors	
	4.3	For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members.	●	-	27		
	4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	●	-	15-16, 29-30	Government is the only one EXAT's shareholder, and recommendations can be made via meetings and policies. For employees, recommendations can also be provided via labor union.	
	4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	●	36-37	-		
	4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	●	-	29-30		
	4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.	●	-	27-29		

Remarks :

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Standard Disclosures (Cont.)

Profile Disclosure			Reported	Page in AR	Page in CSR	Direct Answer/ Explanation	Year to Report
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.		●	-	30-31		
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.		●	-	31		
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.		●	-	29-30		
Commitment							
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.		●	-	30		
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.		●	-	-	ISO 9001, ISO 14001, ISO 14040, GRI	

Remarks :

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Standard Disclosures (Cont.)

Profile Disclosure			Reported	Page in AR	Page in CSR	Direct Answer/ Explanation	Year to Report
4.13	Memberships in associations (such as industry associations) and/or national/ international advocacy organizations in which the organization Has positions in governance bodies, Participates in projects or committees, Provides substantive funding beyond routine membership dues, or Views membership as strategic.		●	-	-	No membership status in any associations.	
Engagement							
4.14	List of stakeholder groups engaged by the organization.		●	-	14		
4.15	Basis for identification and selection of stakeholders with whom to engage.		●	-	14	AA1000SES	
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.		●	-	16-18		
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.		●	-	16-18		

Remarks :

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Core Indicators ☐ Additional Indicators

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Disclosure on Management Approaches (DMA)

Management Approaches	Reported	Page in AR	Page in CSR	Explanation	Year to Report
DMA EC	Disclosure on Management Approaches: Economic				
Economic Performance	●	4-5, 64-65	57-59		
Market Present	○	-	-	Not Material	
Indirect Economic Impacts	●	4-5, 64-65	57-59		
DMA EN	Disclosure on Management Approaches: Environment				
Materials	●	-	60-61, 73-75		
Energy	●	-	60-61, 67-70		
Water	●	-	71-73	Not Material	
Biodiversity	●	-	60-61, 66	Not Material	
Emissions, Effluents, and Waste	●	-	60-67		
Products and Services	●	-	33-35, 54-55, 60		
Compliance	●	-	-	Strictly complies with regulations and law	
Transportation	○	-	-	Not Material	
Overall	○	-	-	Not Material	

Remarks :

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Core Indicators Additional Indicators

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Disclosure on Management Approaches (DMA) (Cont.)

	Management Approaches	Reported	Page in AR	Page in CSR	Explanation	Year to Report
DMA LA	Disclosure on Management Approaches: Labor Practice and Decent Works					
	Employment	●	31	39		
	Labor/management relations	●	31	44		
	Occupational health and safety	●	31	45-47		
	Training and education	●	31	44-46		
	Diversity and equal opportunity	●	31	39, 41-42	Job advancement depends on performance, skills and abilities, with regardless of gender difference and other diversities	
	Equal remuneration for women and men	○	-	-	Not Material	
DMA HR	Disclosure on Management Approaches: Human Rights					
	Investment and procurement practices	◐	-	-	All suppliers are required to comply with Thai laws in every of their operations	2020
	Non-discrimination	●	-	39	Fair treatment to all EXAT's stakeholders	
	Freedom of association and collective bargaining	●	-	44		
	Child labor	◐	-	-	Complies with Thai labor laws	
















Remarks :

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Disclosure on Management Approaches (DMA) (Cont.)

Management Approaches		Reported	Page in AR	Page in CSR	Explanation	Year to Report
DMA HR	Disclosure on Management Approaches: Human Rights (Cont.)					
	Prevention of forced and compulsory labor		-	-	Complies with Thai labor laws	
	Security practices		-	-	Not Material	
	Indigenous rights		-	-		
	Assessment		-	-	Not Material	2020
	Remediation		-	-	Not Available	2020
DMA SO	Disclosure on Management Approaches: Society					
	Local communities		-	33-34		
	Corruption		-	56-57		
	Public policy		-	60		
	Anti-competitive behavior		-	-	Not Material	
	Compliance		-	-	Complies with Thai laws in every operations	
DMA PR	Disclosure on Management Approaches: Product Responsibilities					
	Customer health and safety		-	33-34		
	Product and service labelling		-	54-55		
	Marketing communications		-	60		
	Customer privacy		-	52		
	Compliance		-	-	Complies with Thai laws in every operations	

Remarks :








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 Core Indicators  Additional Indicators

 Fully Reported  Partially Reported  Not Report: Reporting organization need to provide reason for omission, either 1) Not Material, 2) Not Available 3) Not Applicable, or 4) Proprietary Information.

Sustainability Performance Indicators




Economic Performance

Economic Performance Indicators			Reported	Page in AR	Page in CSR	Direct Answer/ Explanation	Year to Report
Economic Performance							
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.		-	58			
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.		-	59, 60-61	EXAT has included other natural phenomenon/disaster in 'climate change' definition		
EC3	Coverage of the organization's defined benefit plan obligations.		-	42			
EC4	Significant financial assistance received from government.		-	58			
Market Presence							
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.		-	-	Not Material		
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.		-	-	Not Material		
Indirect Economic Impacts							
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.		-	34-35, 78-79			

Remarks :

AR - EXAT Annual Report 2014, CSR - EXAT CSR Report 2014

 Core Indicators  Additional Indicators

 Fully Reported  Partially Reported  Not Report: Reporting organization need to provide reason for omission, either 1) Not Material, 2) Not Available 3) Not Applicable, or 4) Proprietary Information.

Sustainability Performance Indicators (cont)

Environmental Performance

Environmental Performance Indicators			Reported	Page in AR	Page in CSR	Direct Answer/ Explanation	Year to Report
Materials							
EN1	Materials used by weight or volume.		●	-	73-75		
EN2	Percentage of materials used that are recycled input materials.		●	-	74-75		
Energy							
EN3	Direct energy consumption by primary energy source.		●	-	71		
EN4	Indirect energy consumption by primary source.		●	-	68-70		
EN5	Energy saved due to conservation and efficiency improvements.		●	-	66-68		
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.		●	-	66-68		
Water							
EN8	Total water withdrawal by source		●	-	71-73		
Biodiversity							
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.		◐	-	66-67	Some information is proprietary information. Size of the operating site is not identified	
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.		◐	-	66-67	Some information is proprietary information.	

Remarks :









AR – EXAT Annual Report 2014, CSR – EXAT CSR Report 2014

Core Indicators Additional Indicators

● Fully Reported ◐ Partially Reported ○ Not Report: Reporting organization need to provide reason for omission, either 1) Not Material, 2) Not Available 3) Not Applicable, or 4) Proprietary Information.

Sustainability Performance Indicators (cont.)




Environmental Performance (cont.)

Environmental Performance Indicators			Reported	Page in AR	Page in CSR	Direct Answer/ Explanation	Year to Report
	Emissions, Effluents, and Waste						
	EN16	Total direct and indirect greenhouse gas emissions by weight.		-	64-66	Not Material	2020
	EN17	Other relevant indirect greenhouse gas emissions by weight.		-	-	Not Material	
	EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.		-	64-66		
	EN19	Emissions of ozone-depleting substances by weight.		-	-	Not Material	
	EN20	NO _x , SO _x , and other significant air emissions by type and weight.		-	64	Not Material	
	EN21	Total water discharge by quality and destination.		-	-	Not Material	
	EN22	Total weight of waste by type and disposal method.		-	67	Not Available	2020
	EN23	Total number and volume of significant spills.		-	-	No significant spill	

Remarks :




AR - EXAT Annual Report 2014, CSR - EXAT CSR Report 2014

 Core Indicators  Additional Indicators





 Fully Reported  Partially Reported  Not Report: Reporting organization need to provide reason for omission, either 1) Not Material, 2) Not Available 3) Not Applicable, or 4) Proprietary Information.

Sustainability Performance Indicators (cont.)

Environmental Performance (cont.)

Environmental Performance Indicators			Reported	Page in AR	Page in CSR	Direct Answer/ Explanation	Year to Report
Products and Services							
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.		-	33-35, 54-55, 60-64			
EN27	Percentage of products sold and their packaging materials that are reclaimed by category.		-	-	Not Applicable		
Compliance							
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.		-	-	No significant fine during fiscal year 2014		




Human Rights Performance

Investment and Procurement Practices							
HR1	Percentage and total number of significant investment agreements and contracts that include human rights clauses or that have undergone human rights screening.		-	-	Contract only mention on compliance to Thai laws	2020	
HR2	Percentage of significant suppliers, contractors, and other business partners that have undergone human rights screening and actions taken.		-	-	Not Available	2020	
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.		-	-	Not Available	2020	
Non-Discrimination							
HR4	Total number of incidents of discrimination and corrective actions taken.		-	-	No incident of discrimination		

Remarks :






AR – EXAT Annual Report 2014, CSR – EXAT CSR Report 2014

 Core Indicators  Additional Indicators

 Fully Reported  Partially Reported  Not Report: Reporting organization need to provide reason for omission, either 1) Not Material, 2) Not Available 3) Not Applicable, or 4) Proprietary Information.

Sustainability Performance Indicators (cont.)




Human Rights Performance (cont.)

Human Rights Performance Indicators			Reported	Page in AR	Page in CSR	Direct Answer/ Explanation	Year to Report
Freedom of association and collective bargaining							
HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.		-	-		None of operational sites are at risk	
Child labor							
HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor.		-	-		No incident of child labor	
Forced and Compulsory Labor							
HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.		-	-		No incidents of forced or compulsory labor	
Assessment							
HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.		-	-		None of operational sites are subjects to human rights assessment	
Remediation							
HR11	Number of grievances related to human rights filed, addressed, and resolved through formal grievance mechanisms.		-	-		No grievances related to human rights	

Remarks :

AR – EXAT Annual Report 2014, CSR – EXAT CSR Report 2014

 Core Indicators  Additional Indicators

 Fully Reported  Partially Reported  Not Report: Reporting organization need to provide reason for omission, either 1) Not Material, 2) Not Available 3) Not Applicable, or 4) Proprietary Information.

Sustainability Performance Indicators (cont.)




Labor Practices and Decent Works Performance

Labor Practices and Decent Works Performance			Reported	Page in AR	Page in CSR	Direct Answer/ Explanation	Year to Report
Employment							
LA1	Total workforce by employment type, employment contract, and region, broken down by gender.	<div></div>	-	39-41	All EXAT workforces (permanent employees and temporary workers) are full-time employment. They all are based only in metropolitan area.		
LA2	Total number and rate of new employee hires and employee turnover by age group, gender, and region.	<div></div>	-	40-41			
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation.	<div></div>	-	42-43			
LA15	Return to work and retention rates after parental leave, by gender.	<div></div>	-	42			
Labor/ Management Relations							
LA4	Percentage of employees covered by collective bargaining agreements.	<div></div>	-	44			
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	<div></div>	-	-	Not Available	2020	
Occupational Health and Safety							
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender.	<div></div>	-	45-47			
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	<div></div>	-	45-47			

Remarks :

AR – EXAT Annual Report 2014, CSR – EXAT CSR Report 2014

 Core Indicators  Additional Indicators

 Fully Reported  Partially Reported  Not Report: Reporting organization need to provide reason for omission, either 1) Not Material, 2) Not Available 3) Not Applicable, or 4) Proprietary Information.

Sustainability Performance Indicators (cont.)

Labor Practices and Decent Works Performance (cont.)

Labor Practices and Decent Works Performance			Reported	Page in AR	Page in CSR	Direct Answer/ Explanation	Year to Report
Training and Education							
	LA10	Average hours of training per year per employee, by gender, and by employee category.	●	-	44-45		
	LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	●	-	44-47		
Diversity and Equal Opportunity							
	LA13	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	●	-	39, 42		
Equal remuneration for women and men							
	LA14	Ratio of basic salary of men to women by employee category.	○	-	-	Not Material	

Remarks :

AR – EXAT Annual Report 2014, CSR – EXAT CSR Report 2014

■ Core Indicators □ Additional Indicators

● Fully Reported ● Partially Reported ○ Not Report: Reporting organization need to provide reason for omission, either 1) Not Material, 2) Not Available 3) Not Applicable, or 4) Proprietary Information.

Sustainability Performance Indicators (cont.)




Society Performance

Society Performance Indicators			Reported	Page in AR	Page in CSR	Direct Answer/ Explanation	Year to Report
Local Communities							
SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	<div><div></div></div>	-	33-35			
SO9	Operations with significant potential or actual negative impacts on local communities.	<div><div></div></div>	-	33-35			
SO10	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.	<div><div></div></div>	-	33-35, 63-65			
Corruption							
SO2	Percentage and total number of business units analyzed for risks related to corruption.	<div><div></div></div>	-	-	Not Available	2020	
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures.	<div><div></div></div>	-	56-57			
SO4	Actions taken in response to incidents of corruption.	<div><div></div></div>	-	56-57			
Public Policy							
SO5	Public policy positions and participation in public policy development and lobbying.	<div><div></div></div>	-	60			
Compliance							
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	<div><div></div></div>	-	-	No significant fines during fiscal year 2014		

Remarks :







AR – EXAT Annual Report 2014, CSR – EXAT CSR Report 2014

 Core Indicators  Additional Indicators

 Fully Reported  Partially Reported  Not Report: Reporting organization need to provide reason for omission, either 1) Not Material, 2) Not Available 3) Not Applicable, or 4) Proprietary Information.

Sustainability Performance Indicators (cont.)




Product Responsibility Performance




Product Responsibility Performance Indicators			Reported	Page in AR	Page in CSR	Direct Answer/ Explanation	Year to Report
Customer Health and Safety							
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.		-	33-35			
Product and Service Labeling							
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.		-	33-35, 50-51, 54-55			
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.		-	48-49			
Marketing Communications							
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.		-	60			
Customer Privacy							
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.		-	52	No substantiated complaints regarding breaches of customer privacy and losses of customer data		
Compliance							
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.		-	-	No significant fines during fiscal year 2014		

Remarks :

AR - EXAT Annual Report 2014, CSR - EXAT CSR Report 2014

 Core Indicators  Additional Indicators

 Fully Reported  Partially Reported  Not Report: Reporting organization need to provide reason for omission, either 1) Not Material, 2) Not Available 3) Not Applicable, or 4) Proprietary Information.

Report Application	C	C+	B	B+	A	A+
	Report on : 1.1 2.1-2.10 3.1-3.8, 3.10-3.12 4.1-4.4, 4.14-4.15	Report Externally Assured	Report on all criteria listed for Level C plus : 1.2, 3.9, 3.13 4.5-4.13 4.16-4.17	Report Externally Assured	Same as requiremen for Level B	Report Externally Assured
	Not Report		Management Approach disclosed for each Indicators Category		Management Approach disclosed for each indicator Category	
	Report full on minimum of any 10 Performance Indicators, including at least one from each of social economic, and environment **		Report fully on minimum of 20 Performance indicators, at least one from each of economic, environment, human rights, labor, society, product, responsibility**		Respond on each core and sector supplement* indicators with due regard to the materiality Principle on by either a) reporting on the indicator or b) explaining the reason for the omission.	

* Sector supplement in final version

** Performance Indicators may be selected from any finalized Sector Supplement, but 7 Of the 10 must be from the original GRI Guidelines.

*** Performance Indicators may be selected from any finalized Sector Supplement, but 14 Of the 20 must be from the original GRI Guidelines.

Reference : GRI G3.1 Guidelines – Application Levels Section pp.1-2

Expressway Authority of Thailand (EXAT)

Questionnaire for CSR Report 2014

Part 1 : General Information

1.1 Please specify your relationship with EXAT (You can provide more than one answer)

☐ EXAT customer

☐ Government supervisory unit

☐ EXAT officer

☐ EXAT business partner

☐ Member of community

☐ surrounding the expressway

☐ General public

☐ Other (please specify).....

1.2 Have you read the EXAT CSR report?

☐ Yes

☐ No

Part 2 Content of the report and presentation

	Very good	Good	Improvement needed	Poor
2.1 How much do you know and understand about EXAT general operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2 What is your understanding of EXAT social, economic and environmental responsibility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.3 Does the content of the report cover its key operations as you expected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.4 Is the report clear and concise?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.5 Is the content easy to understand?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.6 Is the presentation attractive?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.7 What is your overall satisfaction with the report?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part 3 Development of the report

3.1 Did the report include issues of interest to you?

☐ Yes

☐ No (please specify issues of interest that you would like included in the next report)

.....

.....

.....

3.2 Other suggestions

.....

.....

.....

This questionnaire can be returned by hand or sent by mail to the following locations:

1. EXAT toll gates
2. EXAT One stop service center
3. Corporate Social Responsibility Section, Public Relation Division,
Office of the Governor Expressway Authority of Thailand , 2380 Phahonyothin Road,
Senanikom, Chatuchak, BANGKOK 10900, Tel: 02-579-5801-9 ext. 2325-8; Fax 02-579-9156

**** *Your suggestions and comments are important for the future development of EXAT operations**

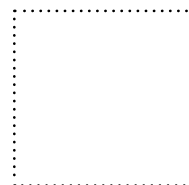
in serving the public while ensuring the development of Thai society.***

We thank you for your kind attention and cooperation



To

Corporate Social Responsibility Section
Public Relation Division
Office of the Governor Expressway
Authority of Thailand
2380 Phahonyothin Road,
Senanikom, Chatuchak,
BANGKOK 10900



Stability

Prosperity

Sustainability





EXPRESSWAY AUTHORITY OF THAILAND

2380 Phahonyothin Road, Saenankom

Chatuchak District Bangkok 10900

Tel. 0-2562-0044, 0-2579-5380-9, 0-2940-1199

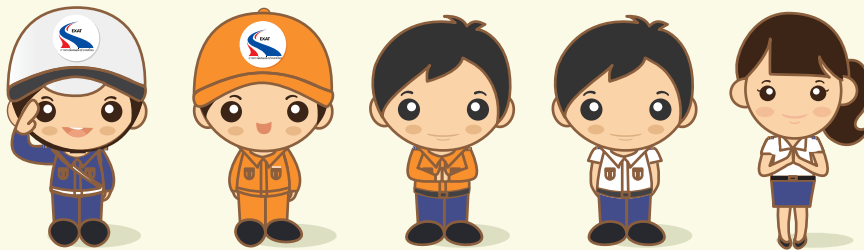
Fax 0-22561-2984

EXAT call Center 1543

Stability

Prosperity

Sustainability



Chalongrat Expressway and Bangna-Artnarong Special Way was certified under ISO 14001 : 2004

Use saving resource, Comply with rules, reduce accident and care environment



Chalerm Mahanakhon Expressway, 9001 : 2008
Standard Quick, correct, impressive and standard service