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

Throughout its 44 years of operations, the Expressway Authority of Thailand (EXAT) is dedicated to effectively solve traffic problems both within the Bangkok Metropolitan and in the suburban areas. In 2016, an addition of Si Rat-Outer Bangkok Ring Expressway was opened for service to further expand the expressway network on the western side of both in Bangkok and suburban areas. In addition, the collection of toll fees has been improved using the Easy Pass card together with the M-Pass card of the Department of Highways to heighten the standard of service for customers.

During the past year, EXAT maintained its strong commitment towards social responsibility as apparent in the revision and operations in accordance with the five-year strategic social responsibility plan (2016-2020) and in line with the internationally recognized Sustainable Development Goals principles. It is focusing on creating responsibility throughout the value chain the business procedures related to rendering public services. This will in turn building acceptance of the community and the society as well as developing higher capability to help alleviate and develop the environment, which will be used as EXAT operational framework for CSR-in-Process.

EXAT has also developed and improved its operations on a regular basis in order to create greater confidence among stakeholders. Some of those included enhanced first aid and evacuation procedures on the expressway, more effective traffic management during the construction and while the expressway is opened for service, upgrading the area under the expressway for public benefit and returning to the society through various organized activities and projects. Those included Expressway for Youth project, Share your Smiles with the kids along side the expressway and Expressway for Youth programme. EXAT aims to be part of the effort in creating a sustainable community that is strong and self-reliance. EXAT takes great pride in the publication of its CSR Report in accordance with the Global Reporting Initiative (GRI) framework to illustrate its operations in the area of corporate social responsibility for five consecutive years since 2012. For four consecutive years, EXAT was named for the Sustainable Report Award organized by Thailand Registered Companies Association during 2013-2016, which clearly reflected EXAT's commitment towards social responsibility.

As the Chairman of the Expressway Authority of Thailand, I am confident that the efforts and dedication in operating its business, EXAT will play a key role in moving Thailand forward into the future. On behalf of the management and staff I would like to express my sincere appreciation to all concerned for their continued support and cooperation that will help make EXAT an organization that walk side by side with the Thai society into the future.

General

Vivat Suchart

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

# 1 Operations of the Expressway Authority of Thailand

The expressway Authority of Thailand (EXAT) (G4-3), a State Enterprise operating under the supervision of the Ministry of Transport, was established on November 27, 1972. Wholly owned by the Government, EXAT's main objectives are construction of expressways, expressway maintenance, operating businesses related to expressway to facilitate traffic as well as providing solutions to obstacles and problems related to transportation especially in Bangkok and suburban areas (G4-4, G4-6, G4-7, G4-8).

Throughout the 44 years of operations, EXAT is committed to operate in response to needs and requirements of the stakeholders to the best of its ability. EXAT has also adopted the use of new innovation and technology to further enhance operational efficiency while expanding expressway network in support of the logistics and city development which can be summarized as follows:

## 1966

- The government has appointed a special committee to resolve disruptions and plan land traffic

## 1969

- Experts from Germany conducted studies and master plan for Bangkok Traffic

## 1972

- The Expressway Authority of Thailand (EXAT) was established following the Announcement of the Revolutionary Council issue no. 290 on 15 November 1972

## 1981

- Expressway in Service: Chaloem Maha Nakon Expressway (Expressway system stage 1), Din Daeng-Tha Reua (8.9 Kilometers)

## 1983

- Expressway in Service: Chaloem Maha Nakon Expressway (Expressway system stage 1), Bang Na-Tha Reua (7.9 Kilometers)

## 1987

- Expressway in Service: Chaloem Maha Nakon Expressway (Expressway system stage 1), Dao Khanong-Tha Reua (10.3 Kilometers)

## 1993

- Expressway in Service: Si Rat Expressway (Expressway system stage 2) Part A starting from Ratchadaphisek passing Phayathai interchange to Rama 9 (12.4 Kilometers)
- Expressway in Service: Si Rat Expressway (Expressway system stage 2) Part C connecting to expressway Part A starting from Ratchadaphisek to Chaeng Watthana (8.0 Kilometers)

## 1996

- Expressway in Service: Si Rat Expressway (Expressway system stage 2) Part B Main road with connecting route to Part A at Phayathai Interchange and connecting to Chaloem Maha Nakhon at Bang Khlo (9.4 Kilometers)
- Expressway in Service: Chalong Rat Expressway (Expressway Ram Inthra–At Narong). Starting from Ram Inthra Road at 5.5 km point to At Narong with Pradit Manootham Road parallel on both sides from Ram Inthra to Ekkamai (18.7 Kilometers)
- Improvement on entry-exit ways Chaloem Maha Nakhon (Expressway system stage 1) at Klong Toey interchange and Sukhumvit

## 1997

- Improvement on entry-exit ways Chaloem Maha Nakhon (Expressway system stage 1) at Petchburi road

## 1998

- Expressway in Service: Udon Rattaya Expressway (Bang Pa-in-Pak Kret) 1<sup>st</sup> Phase from Chaeng Watthana-Chiang Rak and connecting to the road leading to Thammasart Rangsit (22 Kilometers)

## 1999

- Expressway in Service: Udon Rattaya Expressway (Bang Pa-in-Pak Kret) 2<sup>nd</sup> Phase Chiang Rak-Bang Sai (10 Kilometers)

## 2000

- Expressway in Service: Burapha Withi Expressway (Bang Na-Chon Buri) Starting at Bang Na-Trad (km 2+500) to Chon Buri (km 55+350) (55.0 Kilometers)
- Expressway in Service: Si Rat Expressway (Expressway system stage 2) Part D Starting from Rama IX Road to Srinagarindra Road (8.6 Kilometers)

## 2005

- Expressway in Service: Bang Na-At Narong Expressway Beginning at the end of Chalong Rat Expressway overlapping with Chaloem Maha Nakhon Expressway from At Narong interchange, connecting to Burapha Withi Expressway (4.7 Kilometers)

## 2007

- Expressway in Service: Kanchanaphisek Expressway (Bang Phli-Suksawat) Starting from Suksawat Road at Phra Pradaeng and joining motorway no. 34 (Bang Na-Bang Pakong) at Bang Phli Temporary waive for toll fee (22.5 Kilometers)

## 2009

- Expressway in Service: Chalong Rat Expressway (Expressway Ram Inthra–Outer Bangkok Ring Road) The beginning of the expressway connects to Chalong Rat at Ram Inthra to North east until the Outer Bangkok Ring Road (9.50 Kilometers)
- Expressway in Service: Interchange south of Suvarnabhumi Airport connecting Burapha Withi (additional entry-exit ways of Burapha Withi Expressway in support of Suvarnabhumi Airport operations)
- Expressway in Service: 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))

## 2010

- The Expressway Authority of Thailand introduced the Easy Pass system (Electronic Toll Collection System : ETCS)

## 2011

- Expressway in Service: Connecting route of Chaloem Rajadamri 84<sup>th</sup> Birthday Anniversary of His Majesty the King transit Kanchanaphisek Expressway (Bang Phli-Suksawat) and Industrial ring road to complete traffic network south of Bangkok

## 2014

- Expressway in Service: Connecting route of Si Rat Expressway Zone D (Asoke-Sri Nakarin) and Chaturatis Part Kor. for onward travel to Chalong Rat, Suvarnabhumi Airport and inter city highways no.7 (motorway).

## 2015

- Expressway in Service: Entry-exit ways Chaloem Maha Nakon Expressway and the old railway road at At Narong interchange

## 2016

- Expressway in Service: Si Rat-Outer Bangkok Ring Road Expressway starting from the Si Rat expressway north of Moh Chit Transport Station 2 from the Outer ring road west of Bangkok (16.70 Kilometers)

EXAT initiated and developed on the concept of expanding expressway services to cover more areas. In 2016 EXAT added Si Rat-Outer Bangkok Ring Road Expressway to its expressway service making a total of eight expressways and three interchangeable roads covers a total distance of 224.59 kilometers (G4-8), (G4-9) details are as follows:

#### **Expressway route**

1. Chaloen Maha Nakon Expressway (Expressway system Level 1) covers a total area of 27.1 kilometers
2. Si Rat Expressway (Expressway system level 2) covers a total area of 38.4 kilometers
3. Chalong Rat Expressway (Ram Inthra-At Narong and Ram Inthra-Outer Bangkok Ring Road Expressway) covers a total distance of 28.2 kilometers
4. Burapha Withi Expressway (Bang Na-Chon Buri Expressway) covers a total distance of 55 kilometers
5. Udon Rathaya Expressway (Bang pa-in-Pak Kret Expressways) covers a total distance of 32 kilometers
6. Bang Na-At Narong Expressway (Expressway system level 3, southern line, part S1) covers a total distance of 4.7 kilometers
7. Kanchanaphisek Expressway (Bang Phli-Suksawat) covers a total distance of 22.5 kilometers
8. Si Rat-Outer Bangkok Ring Road Expressway covers a total distance of 16.7 kilometers

#### **Connecting route**

1. Elevated road south of Suvarnabhumi connecting to Burapha Withi Expressway
2. Connecting way linking Kanchanaphisek Expressway (Bang Phli-Suksawat and Burapha Withi Expressway
3. Connecting way Chaloen Rajadamri 84<sup>th</sup> Birthday Anniversary of His Majesty the King linking Kanchanaphisek Expressway (Bang Phli-Suksawat) and Industrial ring road

#### **Si Rat – Outer Bangkok Ring Road Expressway (G4-13)**

On 22 August 2016, EXAT opened the elevated six- traffic lane Si Rat-Outer Bangkok Ring Road Expressway for service. Most parts of the expressway were constructed on the existing southern railway area. The expressway started from the western side of the Outer Bangkok Ring Road in parallel to the Boromarajonani road across the Chao Phraya river at Rama IX Bridge. It runs pass Bang Sue intersection and connected to Si Rat Expressway at the area north of Bangkok Bus Terminal (Chatuchak), covering a total distance of 16.7 kilometers. The expressway is part of the project to expand expressway networks linking Bangkok to other nearby provinces to accommodate rising traffic on Kanchanaphisek Expressway pouring into Si Rat Expressway

The Si Rat-Outer Bangkok Ring Road Expressway project has eight connecting points to the main road and expressways

1. Connecting point with Kanchanaphisek road on the western side leading to the Kanchanaphisek toll gate at km 0+900
2. Connecting point with Ratchaphruek road leading to Ratchaphruek toll gate at km 4+400
3. Connecting point of Boromarajonani elevated road (inbound) leading to Boromarajonani toll gate at km 5+300
4. Connecting point with Sirindhorn road, Terdprakiat road and surrounding area of Bang Bamru railway station leading to Bang Bamru toll gate at km 8+800
5. Connecting point with Charan Sanitwong road and Kiakkai bridge project (in the future) leading to Charan Sanitwong 2 toll gate
6. Connecting point with Charan Sanitwong road at the front area of EGAT (Bang Kuay Sai Noi road) leading to Charan Sanitwong 1 toll gate at km 12+300
7. Connecting point with Pracha rat sai 1 road route 1, Ratchadaphisek road on the Pranakhon side, Phibun Songkhram road leading to Rama VI toll gate at km 13+100
8. Connecting point with Si Rat Expressway and Kamphaeng Phet 2 road leading to Si Rat toll gate at km 16+700

### **Future Expressway projects**

With the aim of promoting Thailand as the logistics and transportation hub of ASEAN, EXAT has initiated and developed concept of expanding expressway service areas to other regions including the ASEAN countries. In addition, EXAT also aims to provide safe and fast transportation to facilitate and accommodate the AEC.

EXAT plans for future expressway construction projects on six routes namely:

1. Rama III-Dao Khanong–Western Outer Bangkok Ring Road
2. Third Stage Expressway System project. Northern Route, Section N2 and Eastern E-W Corridor
3. Burapha Withi-Pattaya Expressway Project
4. Udon Rattaya–Ayutthaya Expressway Project
5. Chalong Rat–Sara Buri Expressway Project
6. Kathu–Patong Expressway Project, Phuket Province

## 1.1 EXAT Operational Direction in Corporate Social Responsibility

EXAT fully recognizes its mission on the course of sustainability and as the leader in land transportation under the vision “Worthy choice, visionary development, care for the environment”. The mission involves providing safe and high quality services as well as taking the leading role in the corporate social responsibility.

Throughout its 44 years of operations, EXAT has dedicated to exercising its business potential in support and encourage changes in different dimensions which in turn boost sustainable development in areas of economic, social and environment. This is based on good governance principle and human resource development taking into consideration maximum benefits and business sustainability.

### 1.1.1 Corporate Direction



### 1.1.2 Corporate Culture

- S = Service-minded
- M = Mutuality
- I = Integrity
- L = Loyalty & Engagement
- E = Endeavour

### 1.1.3 Operational Strategies

In order to drive the organization forward to achieve its vision “the value choice of travel with advanced development and great care for the environment”, EXAT has established five year operational strategies plan (2012-2016).

#### 1<sup>st</sup> Strategy

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

#### 2<sup>nd</sup> Strategy

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- 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.

#### 3<sup>rd</sup> Strategy

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- 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.

#### 4<sup>th</sup> Strategy

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- Create specialized knowledge and innovations

Under this operational and strategic direction, as well as the integration of innovative technology to further enhance its operations, EXAT is confident that its main mission of solving traffic problems, facilitation and promotion of convenience transportation system will be highly efficient providing greater convenience to expressway customers. In addition, EXAT has continued to place special care on the environment and living quality of the surrounding community.

#### 1.1.4 Strategic Corporate Social Responsibility Master Plan

To ensure that EXAT has precise direction and target for its operations in area of corporate social responsibility, a five-year strategic corporate social responsibility master plan (2016-2020) has been established. Its operational framework is in accordance with international corporate social responsibility standard namely the Global Reporting Initiative (GRI) which focuses on measuring business operations in the aspect of corporate social responsibility at corporate level. The ISO 26000 standardization presents specific operational guidelines for corporate social responsibility at corporate level including the UN Global Compact and Business Capacity criteria suitable for the future as well as sustainability context. EXAT has therefore determined its corporate social responsibility strategy into three key areas comprising Sustainable Business, Sustainable Society and Sustainable Planet, consecutively.



Figure 1 Overview of a five-year strategic corporate social responsibility master plan (2016-2020)

### **1<sup>st</sup> Strategy: Sustainable Business**

This strategy aims to create integration of corporate social responsibility throughout EXAT's value chain starting from upstream meaning business partners/deliverers through to midstream which is EXAT and then downstream meaning expressway customers made up of three strategies namely:

Strategy 1.1 Create good living quality for personnel

Strategy 1.2 Business operations in accordance with good governance principles

Strategy 1.3 Provide responsible expressway services

### **2<sup>nd</sup> Strategy: Sustainable Society**

EXAT aims to gain acceptance from the community and society for its operations starting from alleviating impact as a result of EXAT operations. This includes expropriator, expressway surrounding community and also creating positive impact through CSR After process in support of social and community development placing special emphasis on creating job opportunities and promoting local economy comprising two strategies namely:

Strategy 2.1 Promote greater relationship management with expropriated landowners

Strategy 2.2 Create participation in sustainable community and social development

### **3<sup>rd</sup> Strategy: Sustainable Planet**

This strategy aims to enable EXAT to alleviate environmental impact while promoting environmental development at international level such as climate change, biodiversity, inventory management, and improved energy efficiency. This also include future environmental development and improvement comprising two strategies namely:

Strategy 3.1 Promote greater environmental responsibility in its operations

Strategy 3.2 Careful monitoring of energy efficiency and impact of climate change

## 1.2 Results of economic operations (G4-EC1, G4-EC4)

EXAT has established suitable operational criteria for different aspects of its management. Effective human resource development has continually been exercised to prepare its personnel in providing expressway service. Equally important is the implementation of different IT technologies to enhance greater operational efficiency as well as effective environmental management for each procedure. EXAT divides economic direct value into operational cost, employment fees and employee benefits as well as payment to investment owners, payment made to the government and community investments with the following details:

Table 1 Direct economic value distributed (G4-EC1, G4-EC4)

Economic Profiles	Value (Baht)
<b>Direct Economic Value Generated</b>	
Revenues	16,406,415,005.08
<b>Subsidies Revenue by Government</b>	
Investment subsidies for land ownership in the Si Rat- Outer Bangkok Ring Road Expressway project	550,000,000.00
<b>Direct Economic Value Distributed</b>	
Operating Costs	3,389,614,483.56
Employee Wages and Benefits	2,760,007,429.15
Payments to Providers of Capital	1,311,145,665.45
Payments to Government	3,985,000,000.00
Community Investments	40,924,055.00
<b>Economic Value Retained</b>	<b>5,469,723,371.92</b>

## 2 Operations for stakeholders (G4-25)

EXAT fully recognizes that in every operational procedure it must think of possible impact on the stakeholders, as they play an important role in driving the organization towards the goal of sustainable management in economic, social and environmental dimensions. Therefore, EXAT has adopted the AA1000SES Stakeholder Engagement Standard in analyzing, reviewing and identifying stakeholders both within and outside the organization. The stakeholders have been categorized into seven major groups (G4-24) as shown in Figure 2:



Figure 2 EXAT’s seven groups of stakeholders

In order to ensure greater efficiency of stakeholder management, EXAT has arranged a wide selection of communication channels with greater accessibility for every group of stakeholders in accordance with the Official Information Act, B.E. 2540 (1997) and Rule On Maintenance of Official Secrets, B.E. 2544 (2001), strictly focusing on “Disclosure is the key, nondisclosure is an exemption”. EXAT has arranged communication channels with stakeholders both within and outside the organization through offline and online channels as follows:

## Communication channels with Stakeholders



Figure 3 Communication channels with Stakeholders

Table 2 Stakeholder and responses towards stakeholders' expectation

Stakeholders (G4-24)	Channels and frequency of communications (G4-26)	Issues received from Stakeholders (G4-27)	Guidelines in responding to stakeholders	Successful outcomes
Expressway User	<p><u>Expressway User</u></p> <ul style="list-style-type: none"> <li>- A satisfaction survey among customers on EXAT services and image in fiscal year 2016</li> <li>- 2 satisfaction surveys among customer on EXAT Call Center 1543 were conducted</li> <li>- 26 activities were organized to strengthen the relationship between expressway customers and those renting spaces within the expressway area</li> <li>- EXAT organized five public relations activities through the setting up of exhibitions and booths</li> <li>- Communication through the print media and other media regularly.</li> <li>- Organized projects and activities to promoted the use of Easy Pass card and counter services to enroll new members at various events where EXAT participated such as Motor Expo or at banks and government offices</li> <li>- Promoted communications and Public Relations of EXAT activities through various media channels and social media</li> <li>- Smart VMS traffic report signs</li> <li>- Travel time estimate signs</li> </ul>	<ul style="list-style-type: none"> <li>- Provide high quality services</li> <li>- Create greater understanding among expressway customers through effective public relations activities and materials as well as improvements of traffic signs at night time</li> <li>- Prioritize the urgency of each operation especially those activities related to social and environmental responsibility</li> </ul>	<ul style="list-style-type: none"> <li>- Provide responsible and attentive services to expressway customers as well as with loyalty and transparency ensuring that the services are of high quality and standards</li> <li>- Improve and develop surrounding environment of the expressway and strictly follow conditions and agreements given to expressway customers</li> <li>- Listen to voices of customers and make available channels for complaints</li> </ul>	<ul style="list-style-type: none"> <li>- Expressways customers are satisfied with services and EXAT brand image. In 2016 fiscal year total customer satisfaction was 91.7 percent</li> <li>- Result of call center satisfaction survey no.1 conducted during October 2015 – March 2016 was 98.55 percent satisfaction</li> <li>- Result of call center satisfaction survey no.2 conducted during April 2016 – September 2016 achieved an average of 98.18 percent satisfaction</li> <li>- Expressway accidental rate was reduced by 0.97 percent</li> <li>- Results of service quality evaluation of gate fee collection staff no. 1 conducted in February 2016 and no.2 in June 2016 was satisfactory to excellent (3.00-5.00)</li> <li>- Officers at EXAT Call Center provided a total of 481,141 service items</li> </ul>

Table 2 Stakeholder and responses towards stakeholders' expectation (Cont.)

Stakeholders (G4-24)	Channels and frequency of communications (G4-26)	Issues received from Stakeholders (G4-27)	Guidelines in responding to stakeholders	Successful outcomes
Expressway User (Cont.)	<p><u>Renter within the expressway area</u></p> <ul style="list-style-type: none"> <li>- Interested individuals are able to lease space within the expressway area and to lease space to put up signage introducing places to visit/public relations can contact the Legal and Land Rights Office, Route Development and Maintenance 1,2 238/1-9 Asoke Building Asoke-Din Daeng Road, Khwaeng Bang Kapi Khet Huai Khwang, Bangkok 10310, Tel: 02-248-6574-6, 02-245-9946-51 facsimile 02-248-6483, 02-247-1197, 02-246-9390 and the one stop service center during working hours. In the fiscal year 2016 there were a total of 779 space lessor agreements</li> <li>- A satisfaction survey was conducted among the space lessors on services provided by EXAT during the fiscal year 2016</li> </ul>	<ul style="list-style-type: none"> <li>- Fair land rental price</li> <li>- Reduction of land rental price</li> <li>- Increase channels for contract renewal such as via internet</li> <li>- Increase channels of rental payment such as via bank service counters or convenient stores</li> <li>- Establish systematic procedures for contact renewal</li> <li>- Improve surrounding landscape such as installation of lighting system, maintaining good sanitation and hygiene and building sports ground</li> </ul>	<ul style="list-style-type: none"> <li>- EXAT offered more channels of payments through cooperation with related establishments such as commercial banks, department stores, and e-banking, for greater convenience for land renters in all expressways areas</li> </ul>	<ul style="list-style-type: none"> <li>- Results of satisfaction survey showed 80.05 percent of the renter in the EXAT's expressway areas were satisfied</li> </ul>

Table 2 Stakeholder and responses towards stakeholders' expectation (Cont.)

Stakeholders (G4-24)	Channels and frequency of communications (G4-26)	Issues received from Stakeholders (G4-27)	Guidelines in responding to stakeholders	Successful outcomes
Government sector as the owner	<ul style="list-style-type: none"> <li>- A total of 19 joint meetings were held with the Ministry of Transport</li> <li>- A total of 37 meetings were held together with the State Enterprise Policy Office</li> <li>- A total of 50 meetings were held together with the office of transport and Traffic Policy and Planning</li> <li>- Five meetings were held together with the Office of the National Economic and Social Development Board</li> </ul>	<ul style="list-style-type: none"> <li>- Develop expressway network and service system which is part of the country's transportation and logistics in order to enhance Thailand's competitive advantage and readiness in being part of the AEC</li> <li>- Expand expressway network and services to improve the special economic zone, starting from developing the trade border and transportation network at the country's main trading gateway to facilitate connection of production process and investment across border</li> <li>- Efficiency in solving traffic problems in Bangkok and suburban areas</li> <li>- Increase efficiency in utilizing existing assets</li> <li>- Strictly follow the environmental policy and measures to help reduce climate change</li> </ul>	<ul style="list-style-type: none"> <li>- Develop and improve physical landscape of the expressways and equipment making sure that they are in qualified and safe condition in accordance with the required standard and able to accommodate transport between neighboring countries in the AEC</li> <li>- Enhance service efficiency of the toll fee collection system to accommodate rising demand in the future</li> </ul>	<ul style="list-style-type: none"> <li>- Results of the Integrity and Transparency assessment (ITA) for government organization, which passed the standard requirements in areas of transparency, readiness to accept any mistake or error, no corruptions in all functions and good practices related to culture and morals within the organization and all work units. By evaluation result was 89.14 of 100. Which classified in the "very high"</li> </ul>

Table 2 Stakeholder and responses towards stakeholders' expectation (Cont.)

Stakeholders (G4-24)	Channels and frequency of communications (G4-26)	Issues received from Stakeholders (G4-27)	Guidelines in responding to stakeholders	Successful outcomes
Employees	<ul style="list-style-type: none"> <li>- Data analysis and organize workforce plan on an annual basis</li> <li>- Organize or improve information related to employee benefits and privileges</li> <li>- A survey was conducted on employees' relations with EXAT</li> <li>- A satisfaction survey was conducted on employee and EXAT relations</li> <li>- EXAT Governor on-site visited to encourage and support employees 2 times</li> <li>- An interview with EXAT's chairman was conducted as part of the making of CSR report</li> <li>- Nine interviews were conducted with Department and Division chiefs (as part of the making of CSR report)<sup>1</sup></li> <li>- Enterprise Strategy Team conducted two meetings</li> </ul>	<ul style="list-style-type: none"> <li>- Provide equal opportunities to all in making career accomplishment</li> <li>- Promote pleasant working environment</li> <li>- Offer suitable benefits and privileges</li> <li>- Improved benefits and returns appropriate for the positions and responsibilities, ensuring that the evaluation process in transparent and fair with clear and acceptable promotion criteria and requirements</li> <li>- Provide equal treatment between employees of different levels, making sure that there's no prejudice and giving opportunity to employees to express their views and decisions</li> <li>- Encourage team work and good work ethics among employees including better understanding of their career path</li> </ul>	<ul style="list-style-type: none"> <li>- Fair work assignments</li> <li>- Fair management of benefits, offer rewards, compliments and encouragement as well as build good relations and create safe and pleasant working environment, encourage fair and equal working opportunity which in turn promote better living quality and success of the organization</li> <li>- Annual health checks for employees and staff. Follow up on health check results and make sure that those who were diagnosed with any problems require medical attention every four months</li> </ul>	<ul style="list-style-type: none"> <li>- Results of Employees relationship with EXAT survey showed 86.50 percent at a good level</li> <li>- Results of Employee satisfaction survey showed 84 percent at a good level</li> <li>- Results of perception and understanding of the organization's vision and values survey showed 95.04 percent at a good level</li> </ul>

<sup>1</sup> EXAT set up 9 workshops to determine the content of the report together with both the executives and staff which one was involved with preparing this report in order to prioritize EXAT material aspects and 8 workshops for monitoring and gathering information

Table 2 Stakeholder and responses towards stakeholders' expectation (Cont.)

Stakeholders (G4-24)	Channels and frequency of communications (G4-26)	Issues received from Stakeholders (G4-27)	Guidelines in responding to stakeholders	Successful outcomes
Affected parties by land expropriation	<ul style="list-style-type: none"> <li>- Conducting opinion survey to obtain public opinion on the construction of Chalong Rat –Sara Buri Expressway project and Udon Rattaya–Ayutthaya Expressway Project</li> </ul>	<ul style="list-style-type: none"> <li>- Determine remedial guidelines and ways in which to help alleviate impact as a result of operations or constructions</li> </ul>	<ul style="list-style-type: none"> <li>- Appropriate treatment for those who are affected by the expropriation for new expressway by listening to their problems, and impact that the construction work has on their daily lives in order to establish remedial measures and actions to alleviate these problems and impacts</li> </ul>	<ul style="list-style-type: none"> <li>- Already planned to Organize public hearing which is currently under the consideration of the Office of Natural Resources and Environmental Policy and Planning</li> </ul>
Partners	<ul style="list-style-type: none"> <li>- Organize monthly meeting on occupational safety to create greater understanding and to determine operational guidelines for concessionaires and work supervision</li> </ul>	<ul style="list-style-type: none"> <li>- To provide effective communication related to contracts and details of the operations between employers and subcontractors</li> <li>- To communicate basic information or important information in order to allow business partners to make effective work plans</li> <li>- To perform and conduct business operations with business partners (concessionaires, debtors) fairly</li> </ul>	<ul style="list-style-type: none"> <li>- Offer more channel of communication with business partners</li> <li>- To perform and conduct business operations with business partners (concessionaires, debtors) with fairness and respect for the conditions as specified in the contract</li> </ul>	-

Table 2 Stakeholder and responses towards stakeholders' expectation (Cont.)

Stakeholders (G4-24)	Channels and frequency of communications (G4-26)	Issues received from Stakeholders (G4-27)	Guidelines in responding to stakeholders	Successful outcomes
Expressway surrounding community	<ul style="list-style-type: none"> <li>- Conduct checks on noise level on the expressway</li> <li>- Making both official and unofficial visits to communities around the expressway area and work closely with the head of the communities on a regular or monthly basis</li> <li>- Organized 30 social contribution activities</li> </ul>	<ul style="list-style-type: none"> <li>- Measures in handling impact from the construction at every stage pre, during and post construction phase</li> <li>- Recognize the impact of expressways running over housing and accommodation areas</li> <li>- Fast and effective problem-solving process.</li> </ul>	<ul style="list-style-type: none"> <li>- Caring for the expressway surrounding community, creating participation and taking into consideration the impact. Also providing fast and equal responsibility for community in handling impacts and also taking part in the improvement of quality of life and safety of the community</li> </ul>	<ul style="list-style-type: none"> <li>- Result of satisfaction survey of the expressway surrounding community was 90.9 per cent</li> </ul>
Society	<ul style="list-style-type: none"> <li>- 24-hour EXAT Call Center 1543 contacted 483,508 times</li> <li>- Five EXAT Roadshows</li> <li>- Updating EXAT main information available on internet/intranet every three months</li> <li>- Provide social media around the clock</li> </ul>	<ul style="list-style-type: none"> <li>- Obtain clear information to create better understanding of EXAT current and future operations</li> <li>- Placing special emphasis and importance on the society, responsible for impacts that may take place including care for their living conditions by listening to</li> </ul>	<ul style="list-style-type: none"> <li>- Operate businesses with responsibility towards society and environment</li> <li>- Giving special emphasis and importance to society, responsible for impacts that may take place including care for their living conditions by listening to their voices while helping to develop society towards a sustainable future</li> </ul>	<ul style="list-style-type: none"> <li>- Information available on EXAT website should be modern and in line with the current situation</li> </ul>

**Reference:**

The Expressway Authority of Thailand “Corporate Governance Manual 2016”

The Expressway Authority of Thailand “Customer Satisfaction survey on EXAT services and Corporate Image in fiscal year 2016”

The Expressway Authority of Thailand “Complete report of Employees Relationship with EXAT in fiscal year 2016”

The Expressway Authority of Thailand “Complete report of Employee Satisfaction with EXAT in fiscal year 2016”

The Expressway Authority of Thailand “Complete Report of Satisfaction Survey on EXAT services among lessors of space within the expressway area for fiscal year 2016”

\* EXAT Call Center 1543 provides news and information services as well as traffic reports on the expressway and receives complaints, suggestions, recommendations, suggestions from the public and expressway customers

## 3 Making the Report

### 3.1 Guidelines for making the report and define boundaries

The EXAT CSR report has been published for five consecutive years (G4-29) to present its operational performance related to CSR. In 2016 fiscal year, EXAT revealed its operations covering the economic, social and environmental dimensions for the period of October 1, 2015 – September 30, 2016 (G4-28, G4-30) based on the Global Reporting Initiative Guideline Version 4 (GRI-G4) framework in the form of Core information disclosure and Ground Transportation – Highways and Rail tracks information disclosure for the business group related to land transportation. In addition, EXAT has worked to ensure that its operations are in line with the Sustainable Development Goals (SDGs) to show its commitment towards social responsibility in parallel with achieving sustainable growth and development of its business.

This report discloses only EXAT operational performance exclusive of EXAT business partners due to the limitation of data collection system. However, EXAT plans to improve its data collection system to provide complete and clear content in the near future in accordance with the GRI principles. (G4-17)

#### Defining Sustainable Material Aspects and Boundaries Process Overview (G4-18)

##### Step 1 Identification

- EXAT reviewed material sustainable aspects from CSR report 2015 and the Five Year Strategic Master Plan for Social Responsibility (2016-2020) including obtain comments from stakeholders together with sustainable aspects analysis within and without organization to identify sustainable material aspects

##### Step 2 Prioritization

- EXAT set up a workshop to determine the content of the report together with both the executives and staff involved with preparing this report in order to prioritize EXAT material aspects. These aspects were prioritized based on two key criteria which led to putting these critical aspects into a table form (materiality matrix) as in table 4

##### Step 3 Validation

- EXAT ensure completion of EXAT material aspects, the results of validation tests were reviewed through opinions and ideas of the related executives and staff members. This is to create greater confidence that content of the report will be evenly disclosed and able to reflect operational procedures covers economic, social and environmental.

## Step 4 Review

- At the end of this report EXAT has placed an opinion survey form to collect comments and suggestions of the stakeholders about the report. This process will take place after the completion of this report and distribution to the public. Information obtained from the survey will be used for further improvement of the next report

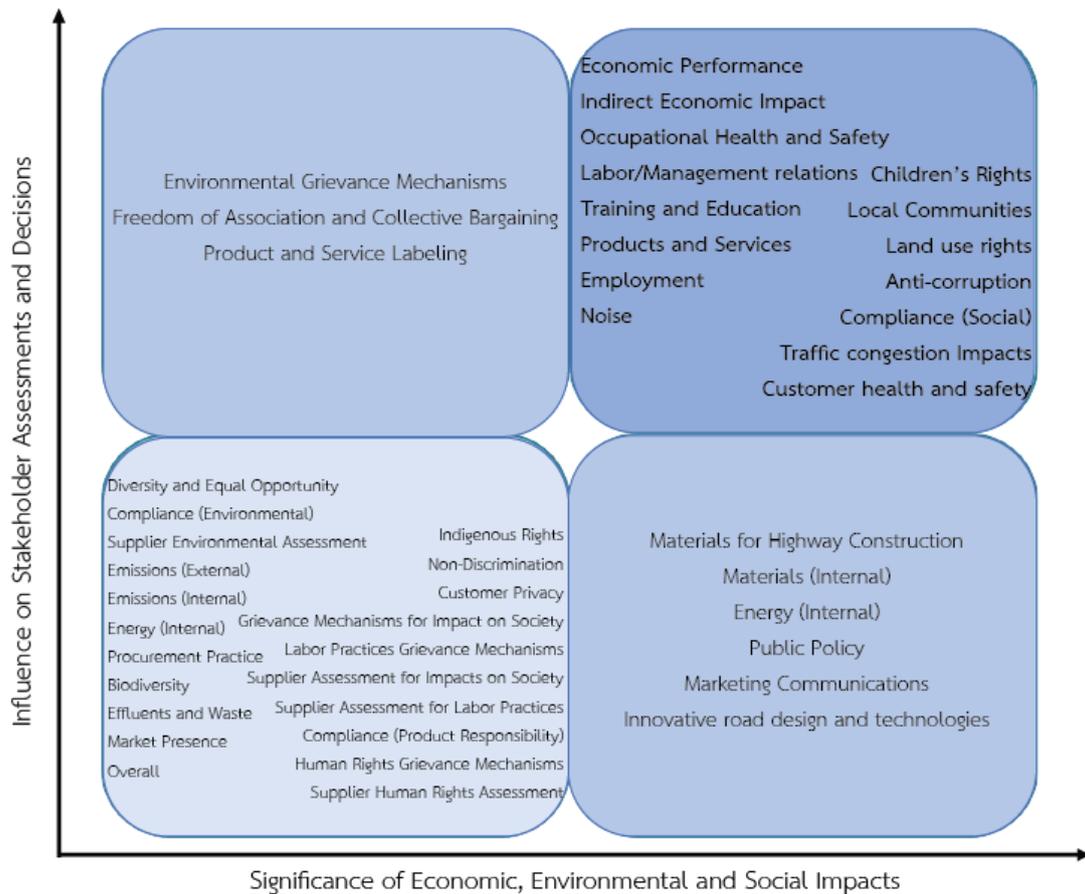


Figure 4 Material sustainable aspects in fiscal year 2016



EXAT ranked the level of importance of impacts on the organization's sustainability based on feedback from every group of stakeholders. EXAT was able to identify the 15 most important aspects and determine the framework of information disclosure for each of the aspects according to their impact, as follows:

Table 3 Defining Boundaries by Aspects and operational impact

Relevant Topics (G4-19)	GRI G4 Materiality Aspects	Boundaries	
		Within Organization (G4-20)	Outside Organization (G4-21)
<b>Economic</b>			
Economic Performance	Economic Performance	EXAT	
Indirect Economic impact	Indirect Economic impact	EXAT	
<b>Environmental</b>			
Noise level in expressway service areas	Noise	EXAT	
Environmental impact as a result of main operations	Products and Services	EXAT	Expressway surrounding community
<b>Labor Practice</b>			
Human resource management	Employment	EXAT	
Employee satisfaction	Labor/Management relations	EXAT	
Occupational health and safety	Occupational Health and Safety	EXAT	
Knowledge management	Training and Education	EXAT	
<b>Human rights</b>			
Children's rights	Children's rights	EXAT	Partners
<b>Community</b>			
Handling of impact on the expressway surrounding community	Local Communities	EXAT	Expressway surrounding community
Anti-corruption	Anti-corruption	EXAT	Partners, Government sector as the owner
Compliance (Social)	Compliance (Social)	EXAT	
<b>Product responsibility</b>			
Safety of customers on the expressway	Customer health and safety	EXAT	
<b>Land transportation business</b>			
Expressway accessibility	Land use rights	EXAT	
Impact of Traffic congestion as a result of expressway construction	Traffic congestion Impacts	EXAT	Partners, Government sector as the owner

### 3.2 Channels of communication (G4-5, G4-31)

EXAT has nine offices both in the Bangkok metropolitan area and suburbs comprising Head Office in Chatuchak, Chalorm Maha Nakon Expressway Control Center (CCB1), Si Rat Expressway Control Center (CCB2), Chalong Rat Expressway Control Center (CCB3), Burapha Withi Expressway Control Center (CCB4), Udon Rathaya Expressway Control Center (CCB5), Kanchanaphisek Expressway Control Center (Bang Phli-Suksawat) (CCB6), Si Rat-Outer Bangkok Ring Road Expressway Control Center (CCB7) and Land Ownership Office.

Should there be any enquiries or suggestions about this CSR report readers are encouraged to answer the Opinion Survey or contact :

Corporate Social Responsibility Section Public Relation Division, Office of the Governor Expressway Authority of Thailand at the address 2380 Phaholyothin Road, Khwaeng Senanikom, Khet Chatuchak, Bangkok 10900, TEL: 02 558 9800 ext. 2325-8

## 4 Management Structure and Good Governance

EXAT has placed special emphasis on effective management and good governance focusing on becoming an effective organization in both business operations and administration. EXAT provides safe and convenient expressway services for customers with transparency and fairness in line with its five year strategic master plan on Social responsibility (2016-2020) and Strategy 1 for Sustainable Business strategic 1.2 Operations with Good Governance

At present EXAT has integrated good governance principles into every operational procedures starting from determining the organization's vision, mission, goals and strategy as shown in Figure 5.



Figure 5 EXAT's Corporate Governance

### 4.1 EXAT Board of Directors (G4-34)

EXAT Board of Directors in accordance with the Expressway Authority of Thailand Act, B.E. 2550 (2007). Section 14, 15, 16 and 17 comprising Chairman of the Board, representatives from the Ministry of Finance, Ministry of Transport, the Bureau of the Budget, Office of the National Economic and Social Development Board (NESDB), Royal Thai Police Headquarters

and Honorary board member being the EXAT Governor as a director and secretary performing the duty in accordance with Clause 19 of the Expressway Authority of Thailand Act 2007 and in accordance with the Cabinet Resolution related to State Enterprise Good Governance.

This is carried out by focusing on Duty of Care, Skills and Duty of Loyalty. The Board of Directors has assigned Good Governance Sub-committee to be responsible for establishing policy, strategy, objectives and plans related to good governance as well as oversee, monitor and promote operations according to good governance principles and guidelines.

Therefore EXAT has arranged and operated in accordance with this good governance plan every year. Operational performance is then reported on a quarterly basis to the Board of Directors and Good Governance Sub-Committee to further ensure that EXAT operates in accordance with the good governance principles

In addition, EXAT also operates in accordance with the good governance criteria of the State Enterprise Policy Office (SEPO), under the Ministry of Finance. This requires a State Enterprise Performance Appraisal system (SEPA) where overseeing the operations of State Enterprise has been put in as Category 1 Leading the Organization of this particular evaluation system

There has been an improvement of evaluation criteria for the Board of Directors in fiscal year 2016, in the form of self/individual, cross evaluation and group evaluation as proposed by the Institute of Research and Development for Public Enterprises (IRDPE) and SEPO. This aims to help improve and develop organizations in accordance with the state enterprise good governance guidelines and principles 2009 and SEPA in the area of leading the organization.

Structure of the Management and EXAT Board of Directors is shown as follows:

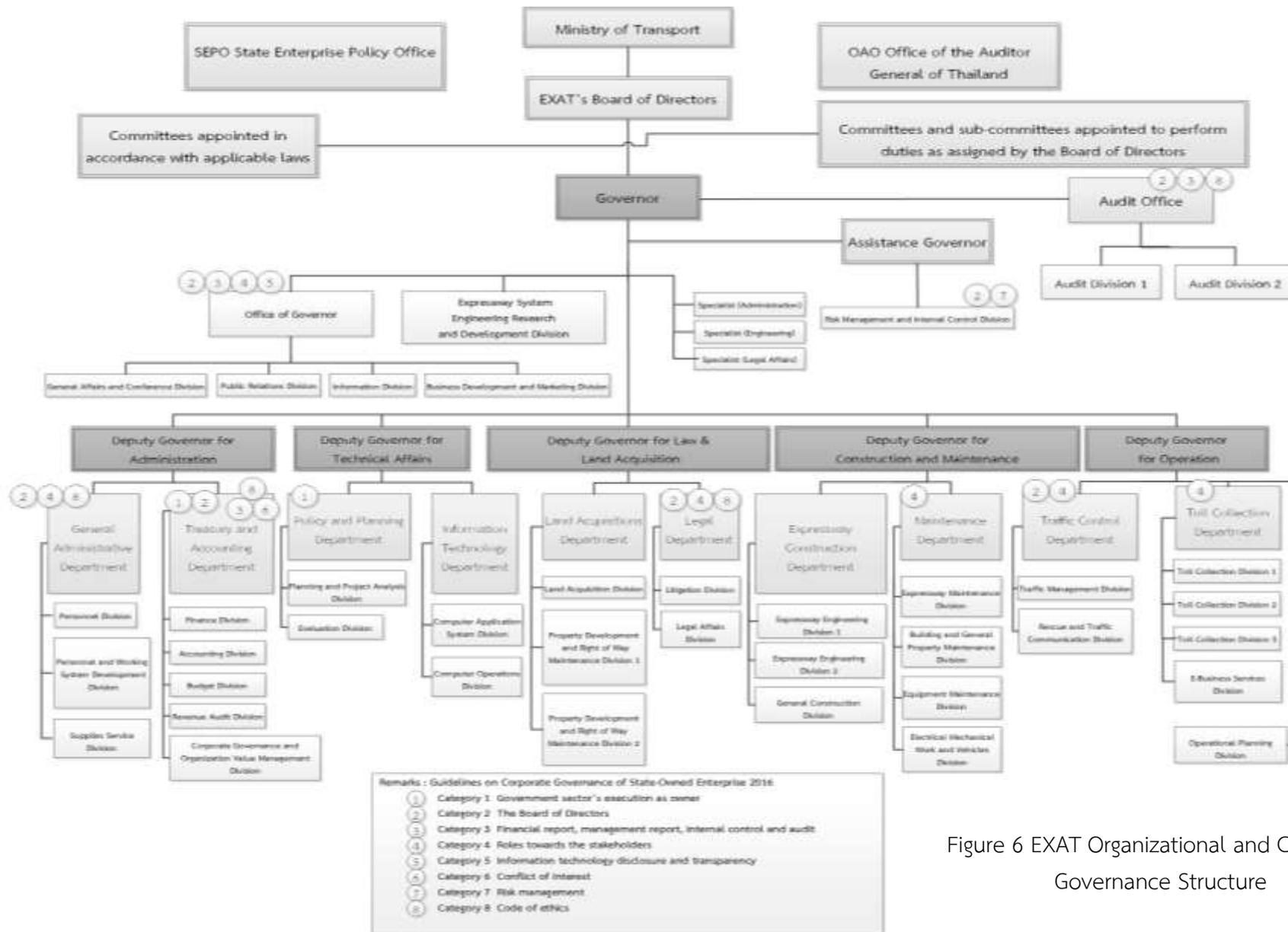


Figure 6 EXAT Organizational and Corporate Governance Structure

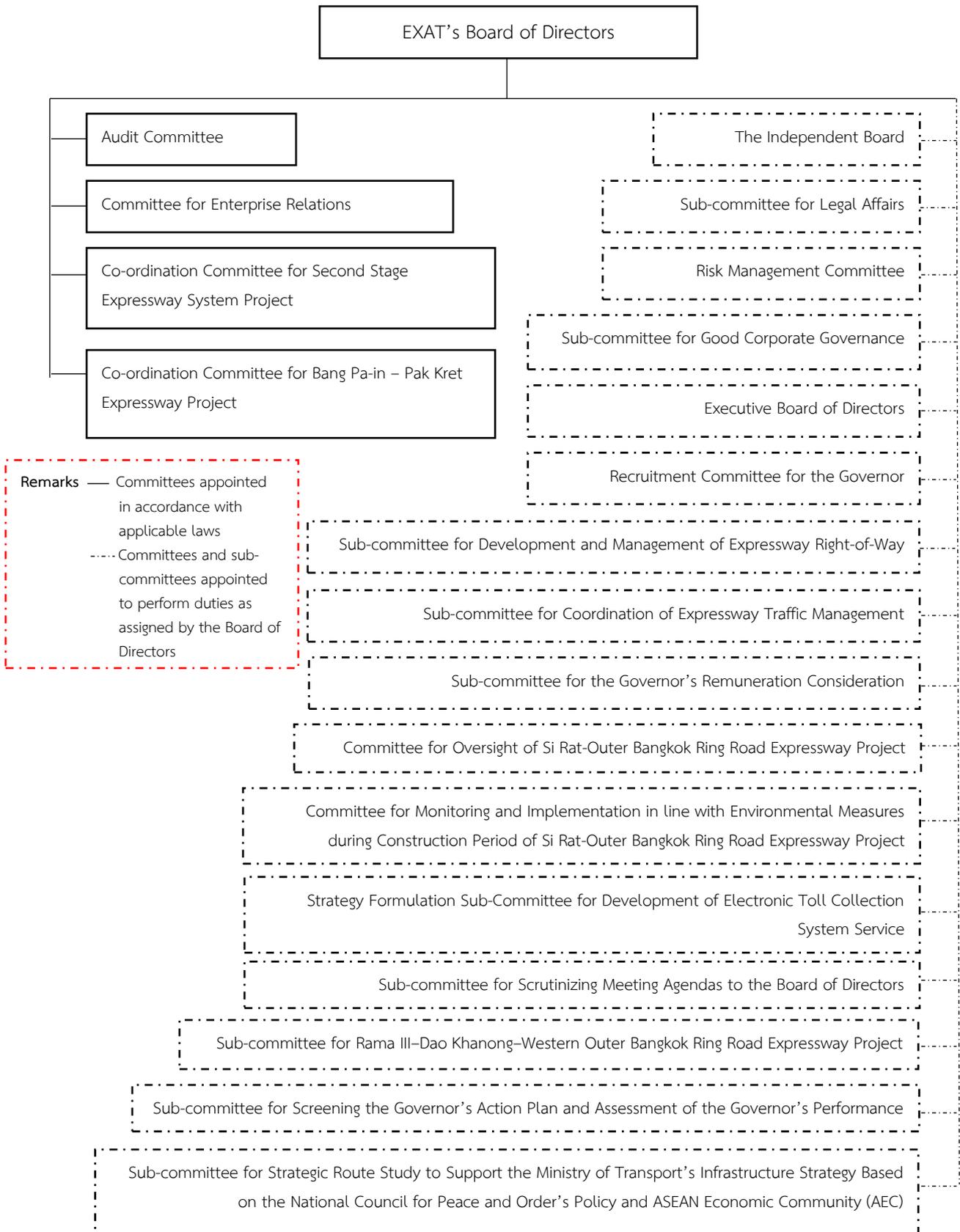


Figure 7 EXAT's Management Structure (G4-34)

## 4.2 EXAT Ethics (G4-56)

EXAT has determined its work ethics since fiscal year 2009 to ensure that its employees follow these business ethics. which will eventually lead of grater living quality. This will play a critical role in driving organization’s objectives towards sustainability. Currently, EXAT has the work ethics called **HEARTS** meaning **performing duties with your heart** in line with the concept “Honest, Equal treatment, Responsible, Transparent and Care for the Society”.



Figure 8 EXAT Ethics

In fiscal year 2016 EXAT reviewed and made amendments to its work ethics manual by adding the issue of maintaining the organization’s confidentiality and social and environmental responsibility to become a part of its work ethics. This result in better business operations where related to employees when compared with the results in 2015. Details are shown in Table 4.

Table 4 Operational performance in accordance with the EXAT work ethics for the fiscal year 2016

Ethic	Performance
H (Honesty)	EXAT has placed strong emphasis on honesty in its business operations. This resulted in a decline in the number of employees who received disciplinary action from 0.038 per cent in fiscal year 2015 to 0.019 percent in 2016 or equivalent to 50 percent reduction.
E (Equity)	EXAT provides equal treatment to all employees. As a result EXAT received no complaints on inequality in providing services for the fiscal year 2016.
A (Accuracy)	EXAT has focused on accurate and reliable operations, and therefore the Office of the Auditor General of Thailand has no conditional opinion on EXAT’s financial budget

Table 4 Operational performance in accordance with the EXAT work ethics for the fiscal year 2016 (Cont.)

Ethic	Performance
<p style="text-align: center;"><b>R</b> (Responsibility)</p>	<p><u>Employee level</u> EXAT is committed to providing suitable care for its employees. As a result employee satisfaction survey showed the result of 91.75 percent satisfaction on the type of work they are doing, and 76.75 percent on the work for which they are responsible, and 83.25 percent on the participation of employees in the management of the organization.</p> <p><u>Organizational level</u> EXAT has placed special importance on responsibility of duty and therefore continued to send revenue to the government as required by the Ministry of Finance of which the total amount has continued to increase.</p>
<p style="text-align: center;"><b>T</b> (Transparency)</p>	<p>EXAT strictly follows transparency principles in managing the organization. This has resulted in greater evaluation of work moral and transparency of government organization reaching as high as 89.14 points from total 100 points.</p>
<p style="text-align: center;"><b>S</b> (Society)</p>	<p>EXAT has always placed public benefit as its top priority and therefore arranged regular CSR activities. In fiscal year 2016, employees' satisfaction on CSR activities was 79.73 percent.</p>

In addition EXAT has organized other activities to promote good governance throughout the fiscal year 2016 including Public Relations and Q&A in EXAT Sound system related to employees' ethics and morals, pamphlets and leaflets on HEARTS, On the Job Training (OJT), EXAT CG Day, EXAT CG My Idol, and CG trip: HEART to HEART. Each of the activities aimed to create greater recognition among employees of the importance of good governance in the operations and daily practice

#### 4.3 Anti-Corruption (G4-SO3, G4-SO4, G4-SO5)

EXAT aims to be without corruption organization in all sectors. In the fiscal year 2016, EXAT has provided training courses for various levels of staff, such as, Overview of corrupt practices in procurement and conflict of interest cases. Course of encouraging integrity, morality, and good governance within the organization. Description about the transparent image to ensure that all employees have knowledge and understanding and take the knowledge gained from the training to practice in the work. As a result, EXAT can drive to without corruption organization.

There were notably two corruption incidents in fiscal year 2016. EXAT is committed to raising its operational guidelines in an attempt to achieve the goal of becoming the corruption-free organization in the foreseeable future.

Table 5 Employee Workshops on Prevention of Organizational Corruption in Fiscal Year 2016

Employee Level	Employees Participating in Workshops on Prevention of Organizational Corruption					
	Fiscal Year 2014		Fiscal Year 2015		Fiscal Year 2016	
	Person	Percent	Person	Percent	Person	Percent
Operational Level 1-6	345	7.82	166	3.71	146	3.16
Executive Level 7-8	29	14.01	187	81.65	154	79.79
Executive Level 9 onwards	1	5.56				

Furthermore, EXAT mapped out an internal audit in order to ensure the operational compliance of various units. In fiscal year 2016, EXAT had its 19 inspection systems raised to 20. It divides the work related to public relations and marketing into 2 work systems: Business and Marketing Development System and Public Relations and Communications System. These systems were devised to accommodate the job description. The details are outlined in figure 9.

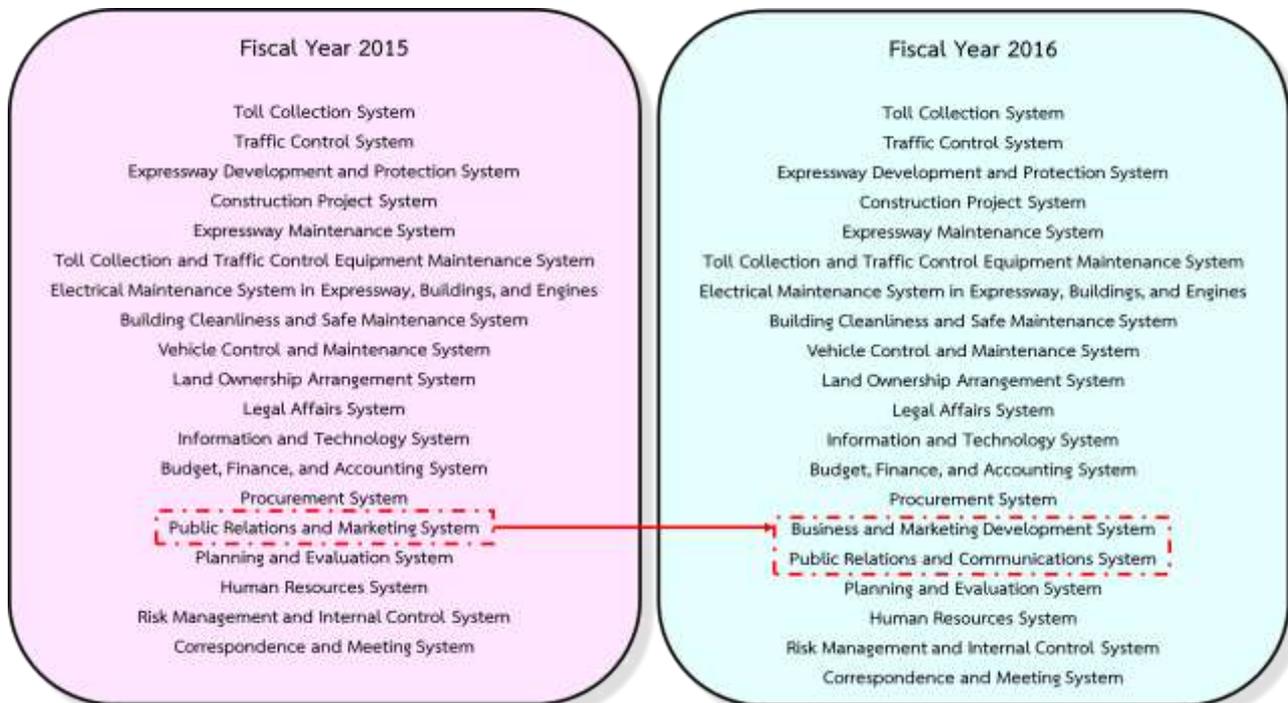


Figure 9 EXAT's Division of Labor

EXAT has laid out additional management guidelines for the work systems proven to have been exposed to the highest risk level each year. The toll collection system was categorized as the work with the highest risk, according to the internal audit executed in fiscal year 2015. Therefore, in 2016, EXAT stepped up its measures to inspect toll collection such as the inspection of vehicle types using expressway services; the installation of CCTV cameras used for recording footage in front of all toll plaza; and the provision of On-the-Job Training (OJT) to toll collector. Doing all of the above mitigated the risk level of the toll collection system to the acceptable extent. With regard to the work system with the highest risk in the fiscal year 2016, it was the EXAT’s construction project system. Moving forward, EXAT will seek to lay out appropriate management guidelines.

EXAT joined the Integrity & Transparency Assessment (ITA) programme for government organization arranged by the Office of The National Anti-Corruption Commission (ONACC). The evaluation focused on transparency, accountability, Integrity in Service Delivery, Integrity Culture and Work integrity. In fiscal year 2016 EXAT achieved evaluation result of 89.14 per cent which was categorized as “very high” and also higher than that of the previous year. This is because EXAT has placed special attention on good governance practice especial in the area of work transparency, integrity and free from corruption.

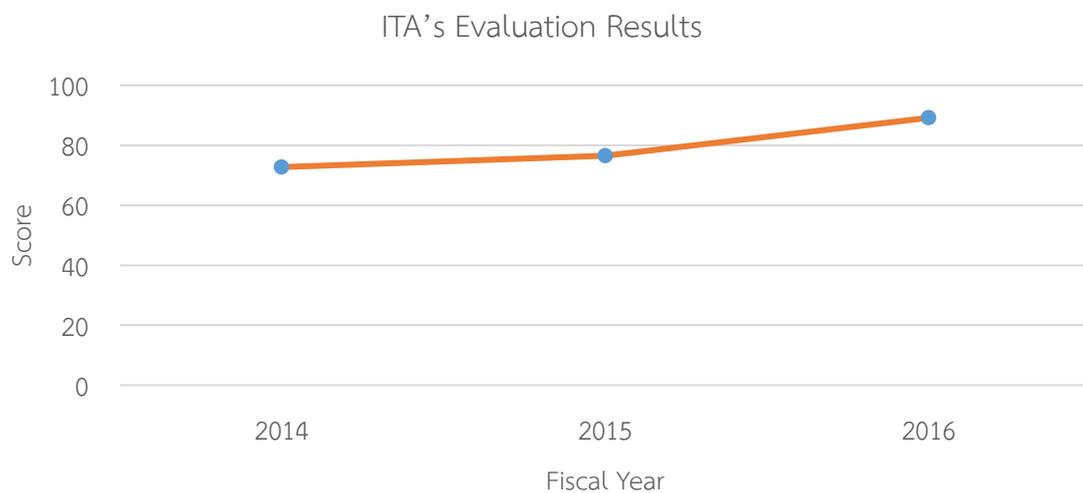


Figure 10 ITA’s Evaluation Results of EXAT in Three Previous Years

## 5 Risk Management

EXAT is committed to ensuring that it is able to achieve its operational goals and create sustainable value for the organization and the country in accordance with its mission as stated in Expressway Authority of Thailand Act, B.E. 2550 (2007). Therefore EXAT has adopted the COSO-ERM (Committee of Sponsoring Organizations of The Treadway Commission - Enterprise Risk Management Thailand) risk management framework to further develop its risk management quality. Studies and analyses have been conducted to identify risk factors that could impact EXAT operations, following which they were categorized and ranked to create guidelines or preventive plans for improvements and resolve any possible risks that might occur. In addition EXAT has adopted the Value-Based Enterprise Risk Management (VBRM) technique and exercised it within the organization through various strategies to change crises into opportunities and use these opportunities to create added value and returns for the organization. EXAT also considered factors that prevented the organization from achieving its goals.

EXAT also appointed a Risk Management Committee with the responsibility of analyzing and evaluating different situations expected to cause risks to EXAT operations. The results helped EXAT determine its overall risk management policy and strategies. The committee supervises and ensures that risk management techniques are carried out appropriately, sufficiently and effectively. The distribution and communication of a risk management manual and plans throughout the organization is also under their responsibility in order to create greater awareness of the joint responsibility of people within in the organization while building value creation and support for the management process. Therefore the risk management reports are to be presented on a regular basis to follow up progress. The results were also presented to the Risk Management Committee, Good Governance Committee, Audit Committee, Executive Committee and the Board of Directors.

In past years, EXAT established risk management directions for fiscal years 2014-2021 which reviewed and analyzed the forecast future risk situations. EXAT also reviewed and identified risk-driven factors and sources of organizational risks. EXAT has determined strategies for risk management at an acceptable level through five strategies as follows:

**Strategy 1** Creating added value from expansion to other businesses based on systematic use of existing assets

**Strategy 2** Creating business opportunity from revenue and debt management based on effective cost utilization

**Strategy 3** Reducing revenue fluctuation based on development and management of marketing and service innovation

**Strategy 4** Creating organizational strength and sustainability based on development of knowledge and an integration of work processes to be in line with the goals/ organizational needs. This also includes cooperation with alliance partners

**Strategy 5** Increasing investment capability based on development/management of innovation finance investment such as infrastructure fund, and asset management company.

Therefore EXAT has established risk management plans for each aspect in order to keep them at acceptable levels. It was found that EXAT has three main risk factors, namely strategic, financial and legal and regulatory issues as follows:

Table 6 EXAT Risk Management Guidelines in fiscal year 2017

Type of risk	Risks	Sources of risks	Risk management guidelines	Performance as a result of risk management
Strategic risk	Expressway productivity	<ul style="list-style-type: none"> <li>- Readiness to handle crisis situations</li> </ul>	<ul style="list-style-type: none"> <li>- Strictly operate in accordance with operational standards related to the management of traffic and evacuation process</li> <li>- Control of trucks carrying hazardous substance on the expressway</li> <li>- Development of special operations unit</li> <li>- Regular exercise of the BCP management plan for every crisis under the EXAT BCP plan</li> <li>- Arrange back up computer systems in case the main computer system is not functioning</li> <li>- Maintenance of lighting and electronic toll collection equipment to ensure that they are in serviceable condition</li> <li>- Regular back up of information</li> </ul>	<ul style="list-style-type: none"> <li>- Ability to solve problems as a result of accidents ensuring that there are no traffic obstructions on the expressway within 25.16 minutes starting from rescuers receiving a notification (it was targeted that the team should reach the site within 10 minutes after receiving notification)</li> <li>- The average rate of accidents to the volume of traffic less than two per million vehicles*</li> </ul>
		<ul style="list-style-type: none"> <li>- Increase the number of electronic toll collection system users</li> </ul>	<ul style="list-style-type: none"> <li>- Publicize and provide documents for distribution to create greater knowledge and understanding of Easy Pass and how it functions</li> <li>- Develop/ improve/ increase pre-paid channels</li> <li>- Management of cargo, SMART CARD and OBU to ensure sufficient availability</li> <li>- Regular maintenance of toll collection equipment and supervision of data base and application of CS system</li> </ul>	<ul style="list-style-type: none"> <li>- There were a total of 211,869,185 cars using the electronic toll collection lane in fiscal year 2016 from seven major routes**</li> <li>- Preparation for the readiness of Easy Pass together with M-Pass of the Department of Highways</li> </ul>

Table 6 EXAT Risk Management Guidelines in fiscal year 2017 (Cont.)

Type of risk	Risks	Sources of risks	Risk management guidelines	Performance as a result of risk management
Financial	EXAT Financial performance in 2016 fiscal year	- Expenses management	- Evaluation of investment on ICT - Evaluation of capability in the management of office expenses	- Ability to operate under the EXAT financial performance plan in fiscal year 2016 achieving profit of 8,924.72 million baht with an increase of 346.51 million baht in total revenue compared to that of fiscal year 2015, and a decrease in total expenses of 146.05 million baht
		- Dispute Resolution and Litigation of EXAT	- Fast and effective handling of disputes and cases until they are concluded in accordance with EXAT procedures - Handling of debts that may occur as a result of prosecution	- Improved quality in the dispute resolution and litigation. In fiscal year 2016, EXAT was able to operate in accordance with its plan 100 percent
Legal and regulatory	EXAT Contract management	- Management of joint venture of Si Rat - Outer Bangkok Ring Road expressway	- Contract management through appointment of Project Committee to supervise and solve problems in accordance with the Private Investments In State Undertakings Act, B.E. 2556 (2013). - Organize committee meeting at least once every six months to find solutions to problems according to the procedures/situations as well as expedite the process as stated in the contract - Discuss with EXAT Legal consultant - Arrange training, field trips and company visits for personnel involved in contract management	- From August 22, 2016, EXAT was able to open for service the Si Rat - Outer Bangkok Ring Road Expressway ahead of schedule which was planned for December 2016

Remarks\* reference from EXAT Statistics Report in Fiscal Year 2016 Page 38

\*\* reference from reference from EXAT Statistics Report in Fiscal Year 2016 Page 19

With dedication to operating its business in order to manage risk at an acceptable level, in fiscal year 2016 EXAT was able to control its financial, strategic and legal and regulatory risks at 99.84 percent, which was more than the 80 percent target as shown in Figure 11.

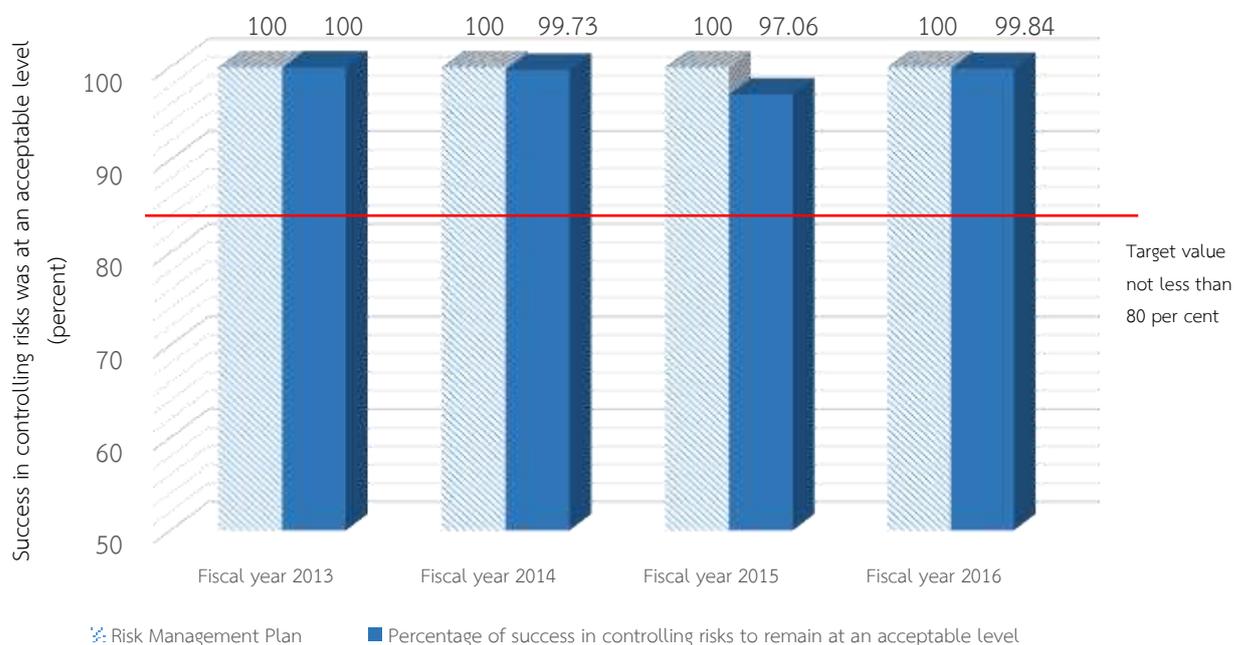


Figure 11 Percentage of success in controlling risks was at an acceptable level

## 5.1 Management of IT Security

EXAT recognizes information technology threats and therefore established an IT security system to ensure maximum safety of the Company's network, IT system and information for continuous function. The IT security policy and guidelines were developed in accordance with the ISO/IEC 27001:2013 standard implemented by the IT Security Committee divided into two key policies as follows:

- 1) Policy for the management of IT security among users
- 2) Policy for the management of IT Security among IT staff

## 5.2 Business Continuity Plan

EXAT has operated in accordance with the Enterprise Risk Management (ERM) since fiscal year 2003 which is a more preventive risk management approach. EXAT is aware of the importance of solution-base risk management and implement the Business Continuity management techniques in fiscal year 2006. In 2016 EXAT put together the BCP as an operational framework. EXAT also reviewed and developed its Business Continuity Plan (BCP)

ensuring that it is in line with the current business under four main EXAT processes as shown in Figure 12.

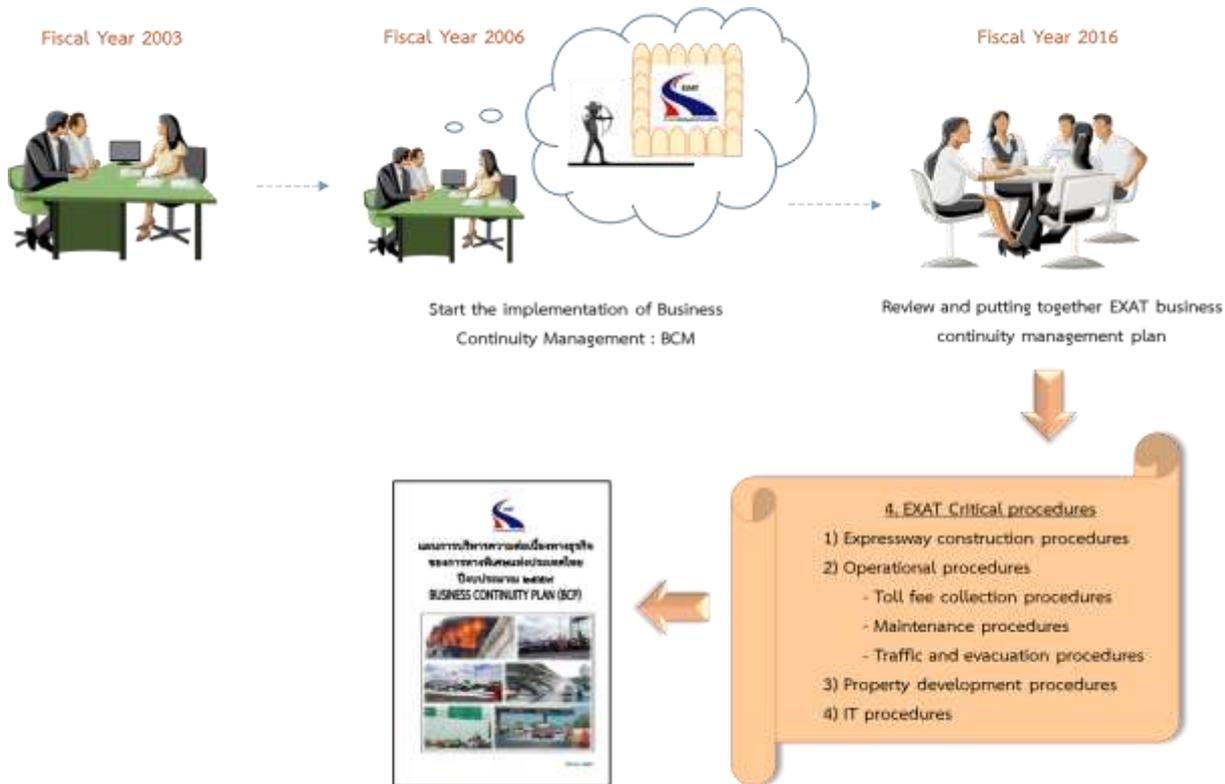


Figure 12 Overview on Business Continuity Plan Developing

To further ensure readiness of the organization to handle any possible crisis situations that may occur, enabling it to effectively carry out business as usual as well as maintain communications with related stakeholders to create greater understanding in the BCP plans, Five crisis situations and twelve crisis were simulated in order to put the BCP plans into practice as shown in Table 7.

Table 7 Practice of the BCP plans

Crisis situations	Crisis	Practice
1. Traffic on expressway comes to a stand still	1.1 Expressway is not in a serviceable condition as a result of a fatal accident	Carried out practice on 30 June 2016
	1.2 Expressway structure is damaged as a result of a natural disaster	Carried out practice on 27 July 2016
	1.3 Expressway structure is damaged as a result of a serious fire within the expressway area	Carried out practice at five locations as follows: <ul style="list-style-type: none"> <li>- Under the Chalong Rat Expressway)</li> <li>- Under the Kanchanaphisek Expressway (Bang Phli-Suksawat)</li> <li>- Under the Chaloem Maha Nakon Expressway</li> <li>- Under the Udon Rathaya Expressway</li> <li>- Under the Si Rat Expressway</li> </ul>
2. Severe traffic congestion at the area in front of the toll plaza	2.1 Toll fee collection system is out of service due to fire at the toll plaza	Carried out practice on 28 June 2016
	2.2 Toll fee collection system is out of service due to floods at the toll plaza	Carried out practice on 29 August 2016
	2.3 The Central system is out of service due to natural disaster/ explosion/ fire at the Computer center (CCB2) / system encroachment/ system collapse	Carried out practice on 21 September 2016
	2.4 Unable to collect the toll fees due to protests	Carried out practice on 26 August 2016
3. Delayed construction	Unable to proceed with construction due to accidents	Carried out practice on 15 December 2015

Table 7 Practice of the BCP plans (Cont.)

Crisis situations	Crisis	Practice
4. Office building or Control Center building is dysfunctional	4.1 Office building/ Expressway control center is dysfunctional due to fire	Practices carried out at nine locations as follows: <ul style="list-style-type: none"> <li>- Si Rat Expressway toll plaza (Phahonyothin 1)</li> <li>- Kanchanaphisek (Bang Phli- Suksawat) Expressway toll plaza (Pak Nam 3)</li> <li>- Chalong Rat Expressway toll plaza (At Narong 1)</li> <li>- Chatuchak Head Office Building</li> <li>- Land Ownership Office</li> <li>- Burapha Withi Expressway control center building</li> <li>- Kanchanaphisk (Bang Phli- Suksawat) Expressway control center building</li> <li>- Chaloem Maha Nakon Expressway control center</li> </ul>
	4.2 Office building/ Expressway control center is out of service due to floods at the toll gate	Carried out practice on 9 September 2016
	4.3 Unable to operate at Office building/ Expressway control center due to protests	Carried out practice on 9 September 2016
5. Office building or Internal control system building is dysfunctional	Main computer center is dysfunctional due to fire in the computer center	Practice carried out on 30 August 2016

These exercises are carried out in order to ensure EXAT readiness to handle any crisis situation that may occur and impact its operations. Internal communications among staff is also critical in order to create greater understanding of the BCP plans. EXAT has also developed a BCP management plan for 2017 fiscal year to ensure operational sustainability.

## 6. Organization Management

### 6.1 Managing Human Resources

The Expressway Authority of Thailand (EXAT) is well aware that “human resources” are the most important asset in any work project. EXAT therefore places importance in enriching its employees’ quality of life according to the Five-Year Social Responsibility Strategic Master Plan (2016–2020). This follows Strategy 1 in the Sustainable Business Strategy 1.1 aimed to enrich employees’ lives.

First we have to find qualified individuals within the fiscal year 2016. EXAT has studied, analyzed and planned new action plans in regards to employees’ needs in every department to improve human resource management. Then, the departments will be able to develop the potential of our people to better answer to the needs of the organization.

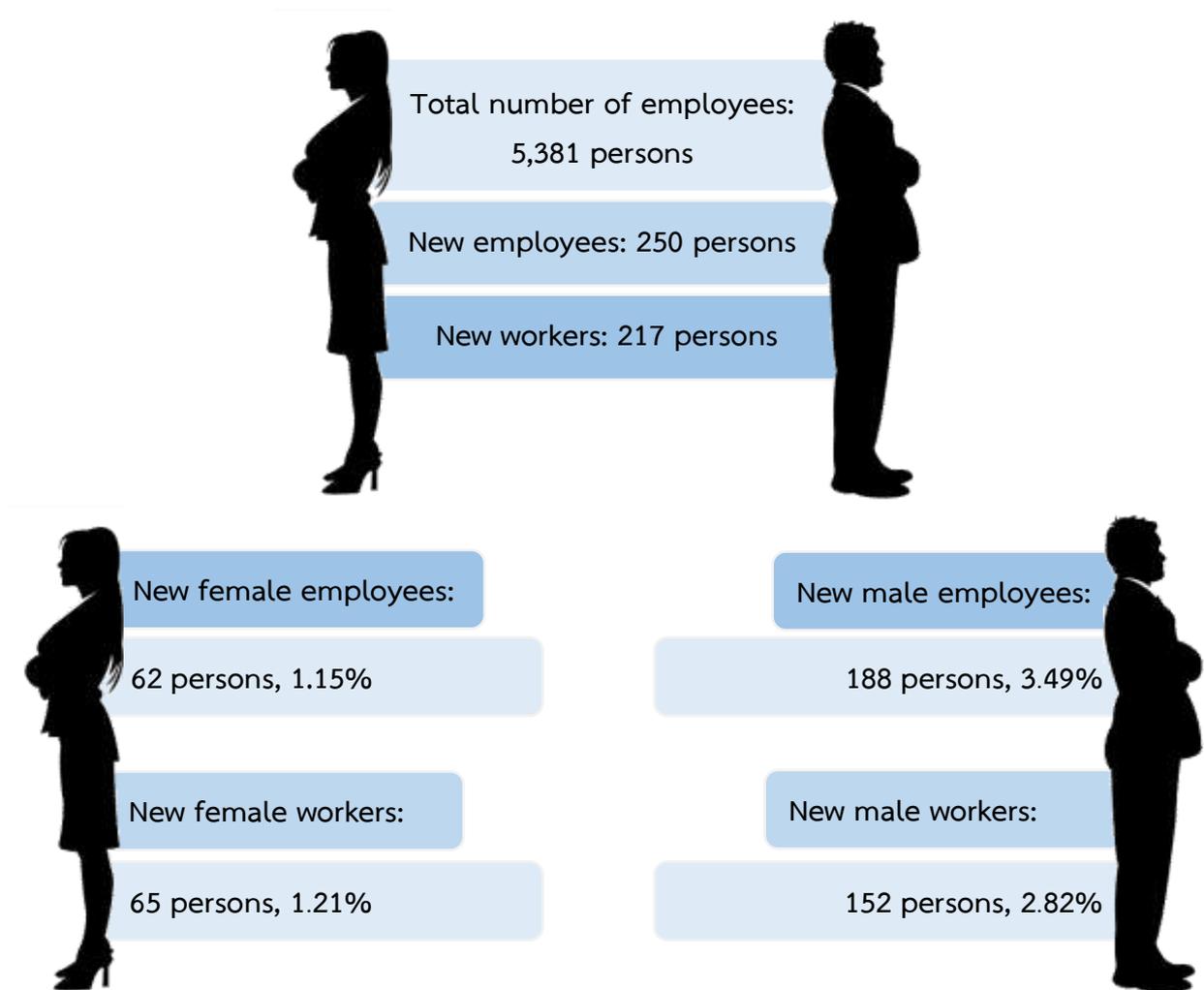
In finding and appointing employees EXAT has followed the Standard Qualifications For Directors and Employees of State Enterprises Act as well as the EXAT’s rules in Section 124, regarding employees. People are treated with equality, with no religious, ethnic, racial or education discrimination. Employees of various stances and cultures can freely apply, since EXAT focuses skills as qualifications.

#### 6.1.1 Finding and Appointing Employees (G4-DMA Employment)

EXAT finds employees by requesting approval for the position to the EXAT director. After approval, job vacancies are announced on the EXAT website (<http://www.exat.co.th/index.php/job>). Potential employees take written tests and interviews, in accordance with EXAT policy. Those who pass must take a temporary position before being offered an official one.

After the recruitment process EXAT will inform employees of their status within a week after the director’s approval (G4-LA4). Employees go through an orientation to inform them about the organization, encourage them to love the workplace, creating workplace relationships, and informing them of their welfare benefits and rights. In the fiscal year 2016 there were 467 new employees:

Information about New Employees in the Fiscal Year 2016 (G4-9), (G4-10), (G4-LA1)



### 6.1.2 Enriching Employees' Quality of Life

EXAT carries out our plan to take care of our employees' to effectively reach their potential at work. EXAT takes care of the work environment to benefit the health and security of our employees, offering assistance and support in terms of rights and welfare care appropriate for each person. Employees can also communicate their needs and opinions to EXAT to foster satisfaction and to create a good relationship with the organization.

### 6.1.3 Equal and Rewarding Salary Management

Personnel are the main resource in an organization's work. To reach our objectives and potential, EXAT appropriately manages our employees' salary to foster good relationships with them but arranging benefits and welfare rights:

Table 8 Benefits and welfare rights of employees (G4-LA2)

Benefits and Welfare Rights	Personnel		Remark
	Employee	Worker	
<b>Regulation Welfare Benefits Provided by EXAT</b>			
Monthly salary	•	•	
Wage	•	•	
Bonus	•		
Per diem	•	•	
Medical fee assistance	•	•	The employee, their spouse and children also get benefits but not the employee's parents.
Education assistance fee for employees' children	•	•	
Child allowance	•	•	
New child assistance fee	•	•	
Retirement bonus	•	•	
Funeral fees	•	•	
Hazard and injury fees for accidents incurred during work	•	•	
Personal accident insurance for those in dangerous jobs	•	•	
Employee uniforms	•	•	
Yearly medical checkup	•	•	
Disaster aid fee	•	•	
Welfare funds	•		
Provident funds	•		
Cremation, funeral and burial funds	•	•	Compensations depends on length of employment
<b>Other, voluntary welfare benefits</b>			
Insurance (accident/car/fire)	•	•	
Group endowment welfare and retirement fund	•	•	
Housing welfare loans	•		Year-to-year worker contracts
Government savings welfare loans	•		
Krung Thai Bank welfare loans	•		

EXAT has disseminate this information through the Intranet, broadcasting, handbooks, and through the public relations board to inform personnel of their rights, regulations, and rules regarding their benefits.

EXAT treats our personnel with equality, not discrimination. Every employee has equal rights and participation to express their opinions and negotiate their working conditions with EXAT’s labor union, established with the State Enterprise Labor Act of 2000, which acts as a communication link between administration and employees. In the fiscal year 2016 there were 3,188 labour union members, or 59.24 percent of all employees. The labour union has a committee of 26 people as well as 11 union director representatives.

#### 6.1.4 Children’s Rights (G4-DMA Children’s Rights, G4-LA3)

EXAT has signed on to promote Children’s Rights and Business Principles which includes these 10 precepts by UNICEF and UN agreements:

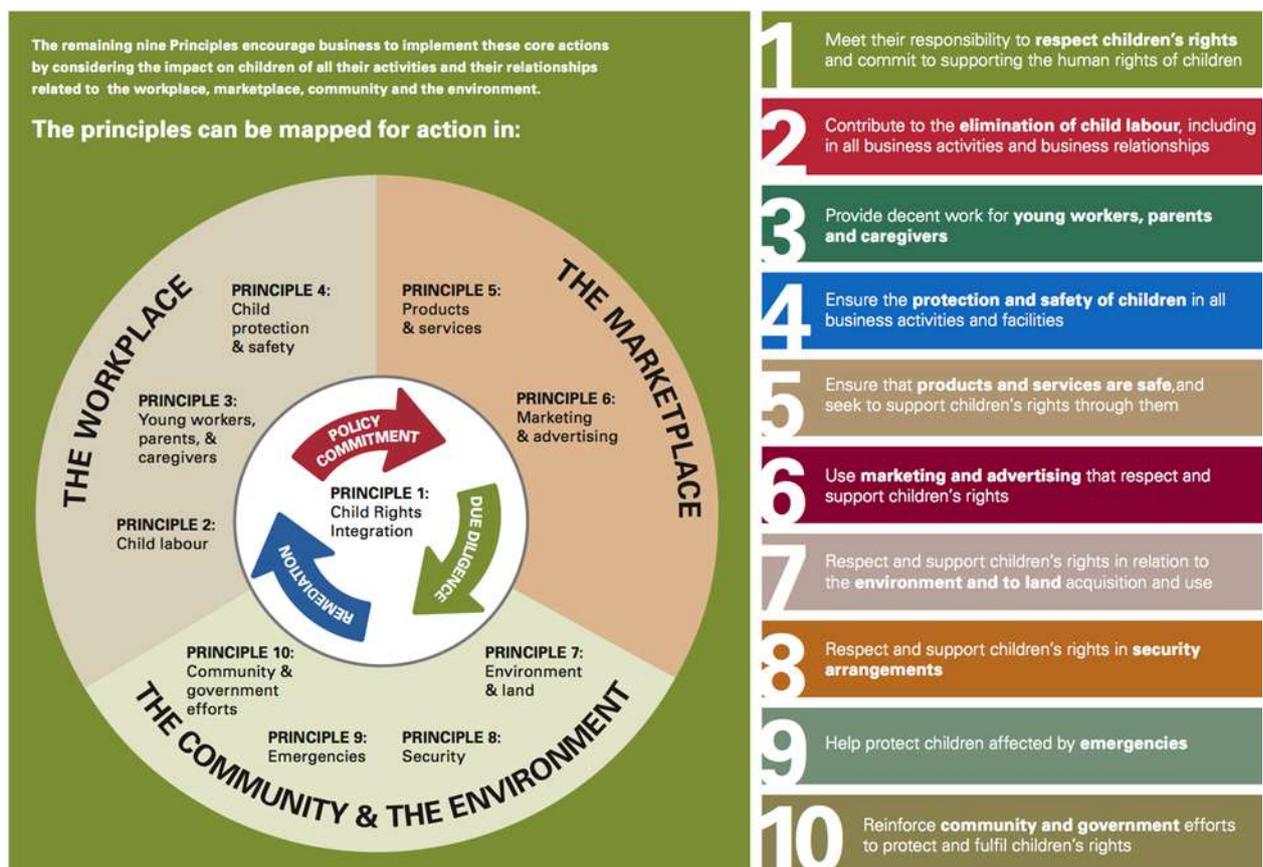
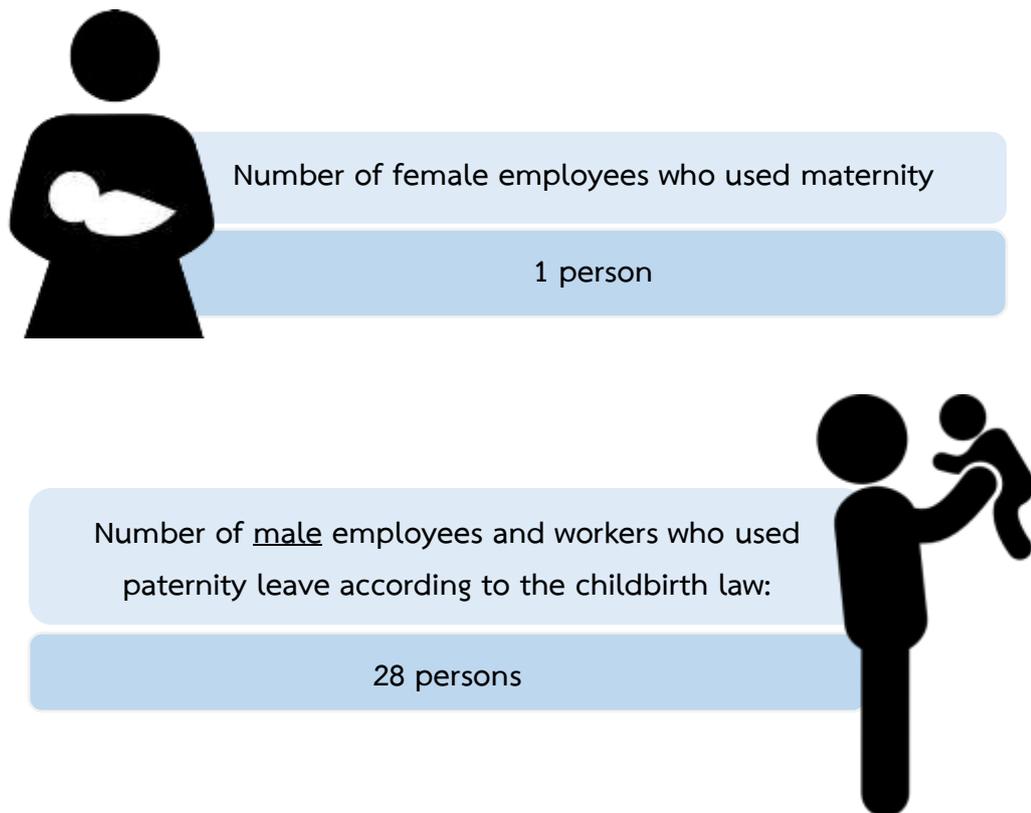


Figure 13 The 10 Children’s Rights and Business Principles

To support children's rights and business principles, they can be mixed with business actions and organizational management such as providing children funds. Before, a child assistance fee was 150 baht per child per month, with no more than three children per employee. This has been changed to 400 baht for the first child, 200 baht for the second and 150 baht for the third per month, with no more than three children. Women get 90 days of pregnancy leave and they have 150 work days of unpaid maternity leave (salary and bonus not applicable). Men get 15 days of paternity leave. The following are the statistics of used maternity and paternity leave:



Other than paternity and maternity leave, EXAT also supports Children's Rights of youths near expressways through the **Sharing Smiles to Expresswayside Children Activity** by giving out scholarships, sports equipment, Thai instruments and band instruments to children in the Bangkruai Kindergarten (Wat Sri Prawat), a school near the Si Rat-Outer Bangkok Ring Road Expressway. The **Making Thai Children's Wishes Come True From The Expressway's Heart Project** organizes futsal matches among children living near the expressway also gives out sports equipment and funds to support local youth futsal players. The **Expressway for Youths Project** gives out scholarships to disadvantaged children and the **Youths of the Expressway Authority of Thailand Project** educates local children about the merits and genius of Rama IX.

#### **6.1.5 Developing Personnel Education and Potential (G4-DMA Training and Education)**

EXAT has prepared our personnel to be adaptable since many employees the fiscal year 2016 were dismissed. These projects include career training, promotion planning, a 5 year manpower plan, and advance research and analysis of workloads to enable personnel to increase their knowledge, work experience and skill (G4-LA10).

EXAT has also held orientation seminars in accordance with the Personal Development Plan for 2016 as well as continually sending employees to study, train and investigate off-site. All departments have been reviewing their gained knowledge so that employees can share what they learned and experience and teach each other to benefit each other's work.

Other programs have also supported self-improvement in the workplace and in daily life, such as first aid training, fire safety training, Language skills development in preparation for AEC membership, taxation law training, environmental law training, power conservation training, money management for salaried employees, and so on.

Curriculums and Seminars of the Fiscal Year 2016 (G4-LA9)



76 courses in total

Average\* of training (hours/person/year) : 25.73

Training cost: 17,500,579 baht

\*\*Minimum of 18 hours/person/year

Table 9 Curriculums and Seminars of the Fiscal Year 2016

Training programs	Number of courses
Training and Development of Action and Strategy Planning	16
Training and Development of Workplace Habits for Maximum Productivity	29
Training and Development Towards an Educational and Sustainable Organization	6
Leadership and Adaptability Training	3
Development in Accordance with Legal Standards and General Training	22
<b>Total</b>	<b>76</b>

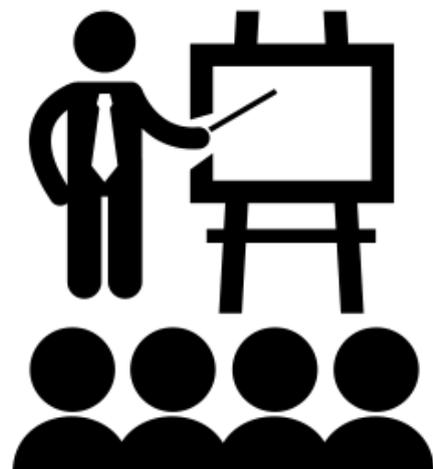
Training and Seminar Statistics of the Fiscal Year 2016 (G4-LA9)

Number of average training hours across different levels of employees (hours/person/year)

Executive Level 9 onwards = 104.75

Executive Level 7-8 = 75.98

Levels 1-6 operating level employees = 22.84





Number of average training hours by employee sex  
(hours/person/year)

Male = 23.16

Female = 29.98

#### 6.1.6 Occupational Health and Safety (G4-DMA Occupational Health and Safety)

EXAT's most important considerations in our operations are the safety and health of our personnel. EXAT aims to make the workplace a safe, healthy place by following our Action Plan to Manage Safety, Health and Workplace Environment of the Fiscal Year 2016. We have also made an EXAT Maintenance Work Safety Manual as an addition to the Work Safety Manual (Complete Edition). EXAT has set up a Committee of Occupational Health, Safety and Environment Management so that work is carried out effectively and safely. The committee of 95 people, or 1.76 percent of all employees (G4-LA5) has a duty to investigate work, support employees, and find ways to prevent work accidents.

EXAT's safety committee constantly examines the health risks of our personnel as well as investigates the workplace environment to prevent and fix accidents. Employees in high-risk jobs such as rescue officers, traffic management officers, and mechanics are equipped with safety equipment by EXAT. These employees are also provided with annual health check ups that consist of tests for lead poisoning, hearing problems, color blindness, lung capacity, and so on.

EXAT also regularly checks the workplace environment, air quality, noise level, and drinking water quality in the EXAT office building and various toll plaza so that personnel can be confident that they are working in a safe environment in accordance with the law, shown in Table 10.

Table 10 Environment, Air Quality, Noise Level, and Drinking Water Quality Inspections at EXAT Office and Traffic Toll Plaza

Traffic Toll Plaza Buildings/ Office Buildings	Type of test		
	Dust	Noise level	Drinking water quality
<b>Chaloem Maha Nakhon Expressway's 6 Toll Plazas</b>			
Bang Na Toll Plaza	•	•	•
Din Daeng Toll Plaza	•	•	•
Dao Kanong Toll Plaza	•	•	•
Rama IV 1 Toll Plaza	•	•	
Liap Mae Nam Toll Plaza	•	•	
Suksawat Toll Plaza	•	•	
<b>Chalong Rat Expressway's 5 Toll Plazas</b>			
Ram Inthra Toll Plaza	•	•	•
Rama IX 1 Toll Plaza	•	•	
Rama IX 2 Toll Plaza	•	•	
Yothin Phathana Toll Plaza	•	•	
Chatuchot Toll Plaza	•	•	•
<b>Burapha Withi Expressway's 2 Toll Plazas</b>			
Chonburi Toll Plaza	•	•	
Bang Wua Toll Plaza			•
<b>Kanchanaphisek Expressway (Bang Phli – Suksawat)'s 3 Toll Plazas</b>			
Bang Kaew 2 Toll Plaza	•	•	•
Bang Khun Thian Toll Plaza (Exit 1)	•	•	•
Phuchao Saming Phray Toll Plaza	•	•	

Table 10 Environment, Air Quality, Noise Level, and Drinking Water Quality Inspections at EXAT Office and Traffic Toll Plaza Buildings (Cont.)

Traffic Toll Plaza Buildings/ Office Buildings	Type of test		
	Dust	Noise level	Drinking water quality
<b>EXAT Headquarters at Chatuchak's 3 Monitoring Spots</b>			
Archive Department's Copy Machine Room	•		
Public Relations Room, 4th Floor in Building 1	•		
Revenue Audit Room, 6th Floor in Building 3	•		
1st Floor in Building 1			•
Cafeteria on 2nd Floor in Building 2			•
6th Floor in Building 3			•
<b>Land Acquisition Department Building</b>			
Cafeteria Building			•
<b>Chalong Rat Expressway Control Center</b>			
Cafeteria Area			•
<b>Burapha Withi Expressway Control Center</b>			
2nd Floor Cafeteria			•
<b>Kanchanaphisek Expressway Control Center's (Bang Phli – Suksawat) 1 Monitoring Spot</b>			
Toll Collection Equipment Section 2 Lap Room, Room 417 on the 4th Floor	•		
1st Floor Cafeteria			•
Inside Building 1 (Water filter in front of the elevator)			•

EXAT also holds the following exercises: an annual fire drill, food quality control in every building, the 5S workplace environment improvement activities, an annual health checkup, influenza vaccine shots, and Zika virus information and prevention. These activities help EXAT personnel to lead safe, healthy jobs while decreasing the likelihood of accidents and deaths.

Injury and Death Statistics in the Fiscal Year 2016 (G4-LA6)



Due to the number of accidents occurred on our personnel, EXAT has investigated the cause of each accident to find ways to improve workplace safety and to ensure our employees' trust and full working potential.

### 6.1.7 Personnel Satisfaction

“Personnel” are an extremely important factor in creating an enduring organization, so EXAT has poured our efforts into taking care of our employees, whether in terms of various benefits or welfare rights. We aim to develop employee potential, take care of their health and safety and well as creating a good workplace environment so that our personnel are satisfied with their work life and its stability.

In the fiscal year 2016, EXAT carried out a satisfaction survey in order to know our personnel’s feelings and satisfaction about their work. The survey, conducted across all of EXAT’s departments, found that 84 percent of employees were satisfied with EXAT, an increase of 5.6 percent from 2015.

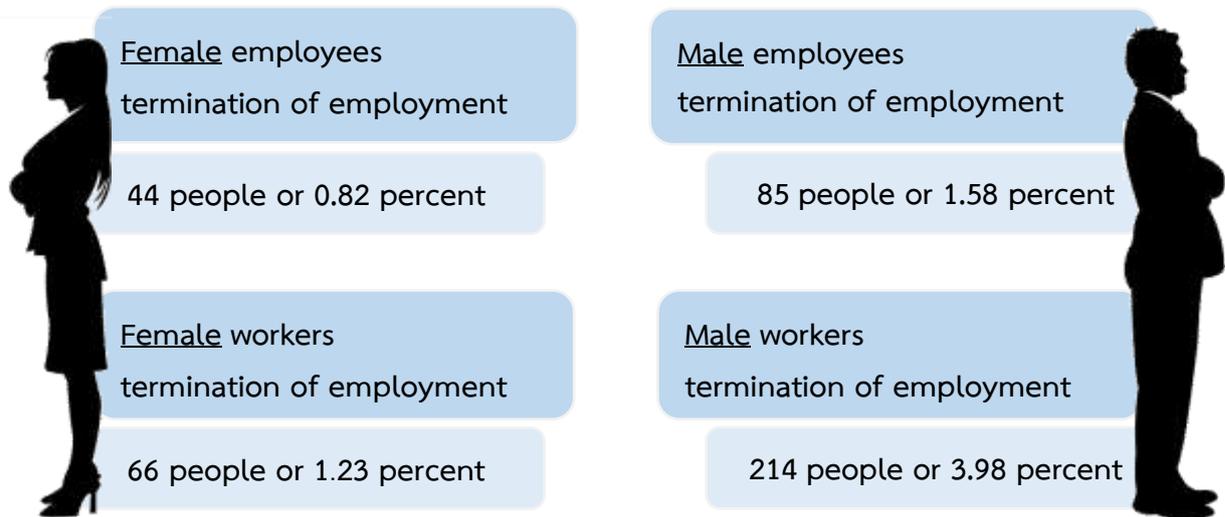
Nevertheless, EXAT will continue to do our best to take care of our employees and increase their satisfaction with their work and the organization for their general happiness, safety and better quality of life.

### 6.1.8 Care for Retiring Employees

EXAT takes care of their employees from recruitment to retirement. We focus on the personnel’s quality of life and bodily and mental health since employees are a valuable, stable asset to the organization. The following are statistics of retirement in the fiscal year 2016.

#### Termination of Employment in the Fiscal Year 2016





#### 6.1.8.1 Preparation for Retirement Age (G4-LA10)

Retirement from the workplace is a major life transition in terms of career, financial stability, and social status. This transition may cause instability and affect the retiring person's family and social lives. Therefore EXAT has tried to prepare our personnel for retirement years and years before they will.

EXAT's "Good, Good Life After Retirement" program, with the topic "How to Retire to Make Youths Jealous" was a seminar that taught personnel over 50 years old skills about financial planning. The program sought to give soon-to-be retirees knowledge, understanding, discipline, and financial planning skills for use in their retirement. This program received a satisfaction level of 82.21 percent.

EXAT also has provident funds for our personnel. In the fiscal year 2016 the provident funds amounted to 3,220,015,153.33 baht. There are two types of investments for the provident funds: balanced fund investments and fixed income investments, which cover the amount of money paid to retiring employees in the fiscal year 2016: 25,288,582.16 baht (G4-EC3).

Table 11 Total Number of Employees in the Fiscal Years 2014 – 2016 (G4-9, G4-10)

Employees and Workers	2014		2015		2016	
	People	Percent	People	Percent	People	Percent
<b>Total number of employees and workers</b>						
Employees	4,623	88.39	4,699	88.28	4,820	89.57
Workers	607	11.61	624	11.72	561	10.43
<b>Total</b>	<b>5,230</b>	<b>100</b>	<b>5,323</b>	<b>100</b>	<b>5,381</b>	<b>100</b>
<b>Total number of employees and workers by sex</b>						
Male	3,362	64.28	3,427	64.38	3,469	64.47
Female	1,868	35.72	1,896	35.62	1,912	35.53
<b>Total</b>	<b>5,230</b>	<b>100</b>	<b>5,323</b>	<b>100</b>	<b>5,381</b>	<b>100</b>
<b>Total number of employees and workers by age</b>						
Under 30	976	18.66	891	16.74	801	14.89
30-50	3,569	68.24	3,677	69.08	3,779	70.23
Over 50	685	13.10	755	14.18	801	14.89
<b>Total</b>	<b>5,230</b>	<b>100</b>	<b>5,323</b>	<b>100</b>	<b>5,381</b>	<b>100</b>
<b>Number of employees across ranking levels</b>						
Executive Level 9 onwards	18	0.39	15	0.32	20	0.41
Executive Level 7-8	207	4.48	197	4.19	173	3.59
Levels 1-6 operating level employees	4,398	95.13	4,487	95.49	4,627	96.00
<b>Total</b>	<b>4,623</b>	<b>100</b>	<b>4,699</b>	<b>100</b>	<b>4,820</b>	<b>100</b>

**Remark:** The number of employees in 2014 and 2015 decreased due to retrograde disciplinary action.

Table 12 Number of New and Terminated Personnel in the Fiscal Years 2014 – 2016

Employees and Workers	2014		2015		2016	
	People	Percent	People	Percent	People	Percent
<b>Total number of <u>new</u> employees and workers</b>						
Employees	117	42.45	151	43.64	250	53.53
Workers	240	57.55	195	56.36	217	46.47
<b>Total</b>	<b>417</b>	<b>100</b>	<b>346</b>	<b>100</b>	<b>467</b>	<b>100</b>
<b>Total number of <u>new</u> employees and workers by sex</b>						
Male	297	71.22	253	73.12	340	72.81
Female	120	28.78	93	26.88	127	27.19
<b>Total</b>	<b>417</b>	<b>100</b>	<b>346</b>	<b>100</b>	<b>467</b>	<b>100</b>
<b>Total number of <u>new</u> employees and workers by age</b>						
Under 30	288	69.06	245	70.81	298	63.81
30-50	129	30.94	100	28.90	169	36.19
Over 50	0	0	1	0.29	0	0
<b>Total</b>	<b>417</b>	<b>100</b>	<b>346</b>	<b>100</b>	<b>467</b>	<b>100</b>
<b>Total number of <u>relinquished</u> employees and workers</b>						
Employees	92	33.33	75	29.53	129	31.54
Workers	184	66.67	179	70.47	280	68.46
<b>Total</b>	<b>276</b>	<b>100</b>	<b>254</b>	<b>100</b>	<b>409</b>	<b>100</b>
<b>Total number of <u>relinquished</u> employees and workers by sex</b>						
Male	201	72.83	186	73.23	299	73.11
Female	75	27.17	68	26.77	110	26.89
<b>Total</b>	<b>276</b>	<b>100</b>	<b>254</b>	<b>100</b>	<b>409</b>	<b>100</b>
<b>Total number of <u>relinquished</u> employees and workers by age</b>						
Under 30	115	41.67	108	42.52	165	40.34
30-50	116	42.03	113	44.49	174	42.54
Over 50	45	16.30	33	12.99	70	17.11
<b>Total</b>	<b>276</b>	<b>100</b>	<b>254</b>	<b>100</b>	<b>409</b>	<b>100</b>

Table 13 Number of Personnel who Took Maternity and Paternity Leave in the Fiscal Years 2014 – 2016 (G4-LA3)

Item	Number of male who took paternity leave (person)			Number of female who took maternity leave (person)		
	2014	2015	2016	2014	2015	2016
Number of people eligible for paternity or maternity leave	2,723	2,888	2,975	1,609	1,670	1,692
Number of people who exercised their paternity or maternity leave	9	36	28	1	3	1
Number of people who came back to work after their paternity or maternity leave	9	36	28	1	2	1
Number of people who came back to work after their paternity or maternity leave, and continued working at EXAT for another year	9	36	28	1	2	1
Rate of people who came back to work and continued their employment after their paternity or maternity leave	100%	100%	100%	100%	66.66%	100%

## 6.2 Environment Management (G4-DMA Environment)

EXAT aims to manage our impact on the environment in accordance with the law and related environmental regulations, both national and international ones. Environmental impact management extends from architectural design, choosing construction materials, land expropriation, construction procedures, service, repairs and a system of regularly surveying environmental impacts and how to lessen them. Our 5-year Model Scheme Strategy for Social Responsibility (2016 – 2020) is the third such strategy, and is made of of two tactics: 1) creating environmental responsibility in our work and its energy use management and 2) impacts from climate change. These two tactics frame the work direction of EXAT. In the fiscal year 2016 EXAT was not fined neither monetarily or non-monetarily for environmental infringements.

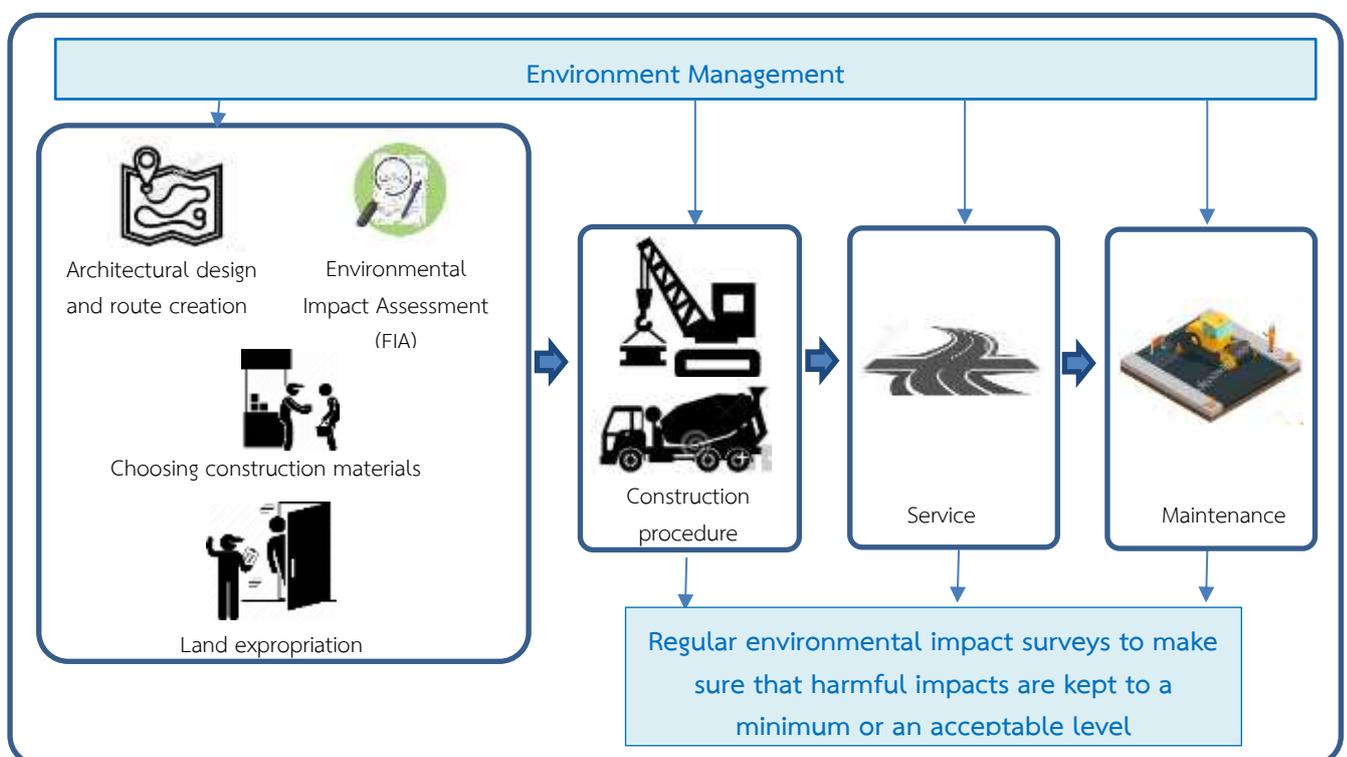


Figure 14 Environment Management Along EXAT's Value Chain (G4-12)

EXAT's environment management system is integrated with ISO 14001. We have also created environmental policies to guide employees and workers to control their environmental impact from their activities and services in a systematic, consistent manner. Our employees are mindful of the risks of environmental impact.

At present, Chalong Rat Expressway and Bang Na–At Narong Expressway have been certified by the ISO 14001:2004, which cover the entire range of our service. This includes toll plaza on and under the expressways since 2013. And We plan to raise our standards from ISO 14001:2004 to ISO 14001:2015 as well as having Burapha Withi Expressway meet these standards as well.

#### **6.2.1 Pre-Construction Procedures (G4-DMA Products and Services, G4-DMA Health and Safety, G4-DMA Land Use Rights)**

Extending the expressway network is a large-scale, expensive project that has a huge impact on the environment and society. Before starting such a project, EXAT must proceed a feasibility study to create the expressway's routes by creating a conceptual design model that is suitable for each route. And proceed Environmental Impact Assessment (EIA) so that we strictly adhere to national and international environmental standards, regulations, and rules, such as the Promotion and Conservation of National Environmental Quality Act of 1992 and the United States of America's AASHTO standard (American Association of State Highway and Transportation Officials), which is a standard used to develop expressways. All EXAT construction projects must have permits from related government agencies.

In selecting construction materials, EXAT places great importance of using environmentally-friendly ones with low environmental impact. For example, Porous Asphalt Concrete, used to pave roads, is an open-graded friction course type of pavement that can quickly drain water and decrease accidents that may happen when roads are wet. This type of concrete is also quieter than asphalt concrete, lessening the noise of impact from car wheels and the pavement. Since the fiscal year 2013, EXAT has paved many expressways with Porous Asphalt Concrete, such as At Narong – Bang Na Expressway and Chaloem Maha Nakon Expressway.

As for land expropriation, EXAT strictly adheres to lawful procedures from government agencies. Before beginning a project, EXAT proceed public hearing opinions from citizens who will be affected by the project. Holding such conferences is in accordance with the 2007 Constitution, the 2005 law which states that the Office of the Prime Minister should be open to hearing from citizens, and the Office of Natural Resources and Environmental Policy and Planning's 2006 law about the necessity of citizen participation in social impact surveys to determine a project's environmental impact.

## 6.2.2 Construction procedure (G4-EN27)

EXAT has strictly complied with environmental management as instructed by the Environmental Impact Assessment report (EIA) throughout the construction, whether in the activities undertaken directly by EXAT or any of its operating partners, in order to maintain any environmental impact caused by the construction in an acceptable level; for example, dust and noise pollution. EXAT also closed down traffic during the construction with the least possible impact on commuters; for example, prioritizing traffic shutdown between 22.00 - 04.00, avoiding traffic shutdown during rush hours, and placing traffic pylons to divert traffic in the areas where installed or assembled girders.

Furthermore, EXAT has also prioritized publishing information about any traffic shutdown to commuters in advance through appropriate channels, such as the Intelligent Traffic Signs and EXAT website, to inform commuters and decide them to avoid travelling to this area.

In the construction of Si Rat Expressway - Outer Bangkok Ring Road, EXAT has applied the technology of Segmental Box Girder, which involves assembling ready-made segments in the area of construction. The method reduces environmental impact, lessens time required for traffic shutdown and mitigates impact from traffic congestion during the construction better than previous methods of construction. It also reduces wastes caused by the construction procedure, such as construction material debris. Furthermore, EXAT has adopted the technology of Balanced Cantilever, which is a popular method for construction long stretch of traffic bridges across rivers. The technology reduces numbers of river pylons needed in older technologies, which in turn mitigates physical impacts to the structure; such as the change in river flows.



Figure 15 A Segmental Box Girder



Figure 16 A Balanced Cantilever

### 6.2.3 Procedures of opening the service (G4-DMA Noise)

EXAT has consistently tracked and inspected environmental impacts as specified in the Environmental Impact Assessment report (EIA) and relevant environment laws every year, whether through inspection of noise or air quality at toll plazas, toll booths and EXAT office buildings. In the fiscal year 2016, EXAT has inspected environmental qualities in the areas of 4 expressways and 6 office buildings under management of EXAT. The results indicate that some parameters are slightly higher than designated standard, and EXAT has undertaken management of these impacts, such as considering more frequent road surface cleanings in order to reduce the quantity of lingering dust, which was a main factor behind dust particles larger than 10 PM as detailed in Table 14.

Table 14 Result of environment quality inspection

Locations of inspection	Overall noise level			Over quality of air	
	Equivalent sound level 24 hour (Leq24Hr)*	Equivalent sound level 8 hour (Leq8hr)*	Maximum sound level (Lmax)*	particulate matter less than 2.5 microns (PM2.5)	particulate matter less than 10 microns (PM10)
<b>Expressways</b>					
Chaloem Maha Nakhon Expressway	●	○	○	●	●
Chalong Rat Expressway	●	○	○	●	●
Burapha Withi Expressway	●	○	○	-	-
Kanchanaphisek Expressway (Bang Phli - Suksawat)	●	○	○	-	○
<b>Office buildings</b>					
Chaloem Maha Nakhon Expressway Control Center	○	○	○	●	○
Chalong Rat Expressway Control Center	○	○	○	○	○
Burapha Withi Expressway Control Center	○	○	○	○	○
Kanchanaphisek (Bang Phli - Suksawat) Expressway Control Center	○	○	○	○	○
Average values	70 <sup>1)</sup>	90 <sup>2)</sup>	115 <sup>2)</sup>	0.05 <sup>3)</sup>	0.12 <sup>3)</sup>

● Higher than standard    ○ Standard compliant

Remark: \* indicates decibel A

(1) is equivalent sound level 24 hour according to the 15<sup>th</sup> Announcement of the National Environment Committee (B.E. 2540), issued under Enhancement and Conservation of National Environmental Quality Act (B.E.2535), as announced in the Royal Gazette Special Chapter 114 Ngor, dated 3 April 1997

(2) is equivalent sound level 8 hour according to Labour Protection Act (B.E. 2541) concerning standard and safety management of work involving heat, cold, vibration and noise, as announced in the Royal Gazette Book no. 123, Chapter 23 Gor, dated 6 March 2006

(3) is equivalent according to the 24<sup>th</sup> Announcement of the National Environment Committee (B.E. 2547), issued under Enhancement and Conservation of National Environmental Quality Act (B.E.2523), as announced in the Royal Gazette Chapter 121 Special Chapter 104 Ngor, dated 22 September 2014

Furthermore, EXAT has prioritized management of impacts caused by climate change. It has compiled an index of operation control greenhouse gas covering areas of large office buildings, as certified by regulations of Thailand Greenhouse Gas Management Organization, and it has used information of release of greenhouse gas in the fiscal year 2015 (1 October 2014 - 30 September 2015) as a baseline year. It has also frequently encouraged its personnel to participate in the efforts to reduce greenhouse gas within the organization.

### **6.3 Management of relations with expropriated landowners and expressway surrounding communities**

Expressway surrounding communities are prioritized by EXAT for compensation, in order to gain acceptance from the communities and society. Therefore, such effort is part of a five-year strategy (2016 - 2021) on social responsibility, which involves creating acceptance from the communities and promoting a sustainable society that prioritize expropriated landowners and expressway surrounding communities.

#### **6.3.1 Management of relations with owners of expropriated landowners**

EXAT has focused on providing accessible communication to reach understanding with those impacted by construction of expressways and financial compensation in a suitable amount and speedy timeframe. It has also operated in accordance with laws and relevant government regulations, such as the Expropriation of Immovable Property Act (BE 2530), that is, EXAT would proceed public hearings before starting all expressway project in accordance with the laws, in order to hear opinions from groups of people who would likely be impacted by the construction.

After an approval to construct an expressway is granted, EXAT would proceed with expropriating immovable property according to the Royal Decree pertaining to the areas designated for expropriation.

Owners of expropriated lands would receive compensation in a fair amount as specified by the law, whether they are compensations for land, structures, trees, rents, compensations for leaving the property and any other compensations, such as the loss of occupational pays.

In the fiscal year 2016, EXAT is in the process of drafting a Royal Decree designating expropriated lands in Bangkok's district of Rat Burana, which would grant an authority to survey Rat Burana district for the construction of Rama III Road-Dao Khanong-Outer Bangkok Ring Road Expressway. Compensation would be in accordance with the Expropriation of Immovable Property Act (BE 2530). It is also expected that the compensation for structures would be in accordance with current situations, while the process to approve compensation payment would be faster, in order to lessen impacts faced by owners of expropriated lands. However, if owners of expropriated lands are unsatisfied by the compensation amount received can submit their appeal to the Minister of Transport within 60 days after they received a compensation notification from EXAT.

Si Rat Expressway - Outer Bangkok Ring Road opened in the fiscal year 2016, which led to expropriation of 657 plots of land and 893 structures. Of these numbers, owners of 518 plots of land and 280 structures filed appeals and secured additional compensation. Furthermore, EXAT also opened entries and exits for communities affected by the project, 81 out of 96 communities that filed requests.

However, 376.51 million baht of compensation fees remain uncollected. The amount has been deposited in the Government Savings Bank to await further action.

### **6.3.2 Management of relations with surrounding community**

EXAT prioritized its relations with communities around the expressways and aims to reduce any environmental or societal impact that might be caused by its works. Measures include installing sound barrier and paving road surface with porous asphalt on the expressways close to schools and residential areas to reduce noise pollution. EXAT also engages in activities to maintain positive relations with communities around the expressways every year. These activities are included in social responsibility plans. In the fiscal year 2016, EXAT launched “Volunteer Spirits for Thai Expressways” campaign, activities to improve areas under expressways jointly with Bangkok district offices and fire prevention drills along the expressways.

In the fiscal year 2016, 90.9 percent of communities around the expressways are satisfied with EXAT’s outreach activities, higher than the expected goal of 80 percent.

### **6.4 Management of relations with expressways users and renters of expressway properties**

EXAT aim to improve service efficiency of its operations for expressway users. A working committee on marketing operations was introduced to constantly improve and maintain the standards of expressway services and safety, along with innovative services and values to develop social responsibility. Furthermore, EXAT has compiled a five-year Strategic Corporate Social Responsibility Master Plan in accordance with strategy on social responsibility and safety maintenance within the framework of providing services.

In order to manage relations for the maximum coverage, EXAT has designated marketing segments of expressways users into 2 groups. The first market group is expressways users. They consist of customers who pay by cash, by Easy Pass and who never use the expressways. The second market group is tenants of properties in expressways vicinities. The management of relations with these two market groups are detailed as followed:



Figure 17 Market groups of EXAT customers

#### 6.4.1 Management of relations with expressway users

In the fiscal year 2016, 653.661 million vehicles used the expressways, a 1.04 percent rise from 2015 fiscal year, as demonstrated in this graph:

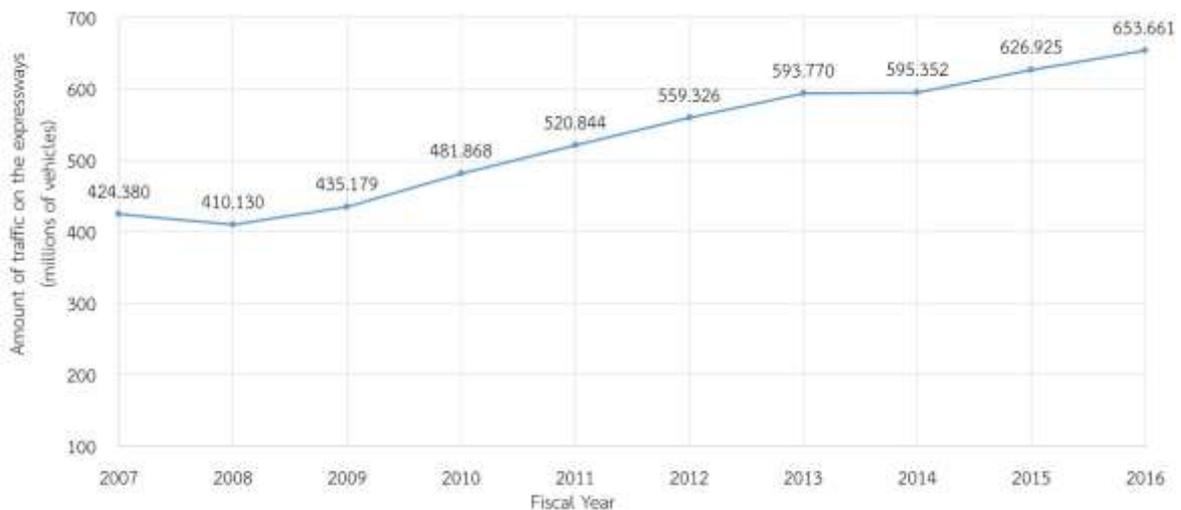


Figure 18 Amount of traffic on the expressways between fiscal years 2007 - 2016

As a consequence of increase in number of expressway users, traffic has increased in toll plaza in rush hours, causing impact to both customers who pay by cash and Easy Pass and preventing them from receiving full convenience in services.

EXAT has studied solutions to the problems, resulting in improvement and development of services, such as service providing on the expressways, road maintenance and rescue efforts during emergencies, so that expressway users can receive excellent, convenient and speedy services, along with full level of safety throughout their travels.

#### **6.4.1.1 Management of traffic problem (DMA impact from traffic congestion on the expressways)**

EXAT realizes in convenient, speedy and safely for expressway users. Therefore, throughout the fiscal year 2016 EXAT has improved services with an aim to reduce congestions on the expressways, including:

- Designating waiting lane to at the exits of expressways by the length of 50 meters, with an average flow of 35.50 seconds / vehicle in risky areas
- Designating average time in collecting expressways fares under open system (collecting a single fare at the entries) 6 vehicles/minute/toll booth and under closed system (collecting fares based on distance at the exits) 4 vehicles/minute/toll booth, with monthly inspection

Furthermore, EXAT has improve management of traffic problem innovative measures, such as live traffic report on smart phones, using geographical information system in conjunction with web service to manage traffic on the expressways, applied use of open source technology for sustainable storage of information within the organizations and studies of comparison between mobile probe and fixed sensor data to report traffic conditions on the expressway, with a study case of Kanchanaphisek Expressway (Bang Phli - Suksawat). Use of these technologies and researches have been applied to improvement of innovation resulting in a more accurate and faster report of traffic situation.

And, EXAT has also developed technology to solve traffic congestion on the expressway, with the establishment of Intelligent Transportation Center (ITS Center) as a nexus of information exchange between EXAT and other agencies, with 343 CCTVs linked up in its network. There are 7 sub-systems, as followed:

1. Automatic traffic data collection system on Kanchanaphisek Expressway (Bang Phli-Suksawat) that collects data from traffic sensors and processes the information to illustrate traffic conditions in graphics.

2. Smart VMS that checks accuracy of Intelligent Traffic Signs. In the fiscal year 2016, EXAT has developed 4<sup>th</sup> generation of Smart VMS and install move 8 ones to illustrate traffic conditions in green, yellow and red colors so that commuters can plan their trips accordingly.

3. Data Exchange Center. as a center for information exchange with other agencies such as the Traffic Police Division, Transport and Traffic Policy Plan Office and Land Transport Department. In the fiscal year 2016, EXAT has reached the 3<sup>rd</sup> stage of the project, having developed the system to show real time feeds from 343 CCTVs on 7 expressways.

4. Schematic Map. It illustrates traffic condition in green, yellow and red colors based on measurements by EXAT officials and automatic devices. To display the traffic by network of expressways called Schematic Map, which make commuters to understand the information and compare it with other traffic reports for planning their trips.

5. Devices Monitoring System. It inspects the work condition of devices and communication networks between ITS Center and other equipment of the system that operates for 24 hours.

6. Automatic Incident Detection. It monitors real time accidents or other incidents in the traffic based on equipment installed along the expressways and advanced mathematical algorithm. The system support traffic management staff and EXAT Call Center 1543.

7. Mobile Application information management, under the name EXAT Traffic, formerly known as “EXAT ITS,” which improves from first version of Mobile Application information management launched in the fiscal year 2011 through <http://its.thaieasypass.com>. In the fiscal year 2016, EXAT launched the 2<sup>nd</sup> version of “EXAT ITS,” accessible through both iOS and Android platforms, which enable expressways users and members of the public to access both pre-trip traffic information and enroute traffic information. Currently it has been downloaded 56,811 times. The system is an integrated work of many innovation development plans, such as the plan to develop and improve EXAT official website, [www.exat.co.th](http://www.exat.co.th), traffic report mobile application , display of traffic congestion and accidents via mobile application and ETC application for sending information about fare amount and remaining values in cards. In the fiscal year 2016, EXAT launched further studies to develop the 3<sup>rd</sup> version of its mobile application via suppliers, inputs, process, outputs, and customers protocol (SIPOC) which exceeds expectation of expressway users. It will be available for free download in the fiscal year 2017 on both iOS and Android platforms. The development and user number information can be summarized in Figure 19.



Figure 19 Development of mobile application

However, in order to strive for a modern and efficient innovation that corresponds to the needs of expressway users, EXAT has conducted efficiency report of all 7 systems, with the goal is 80 percent efficiency. The result shows that all functions operate higher than goals, as illustrated in Figure 20.

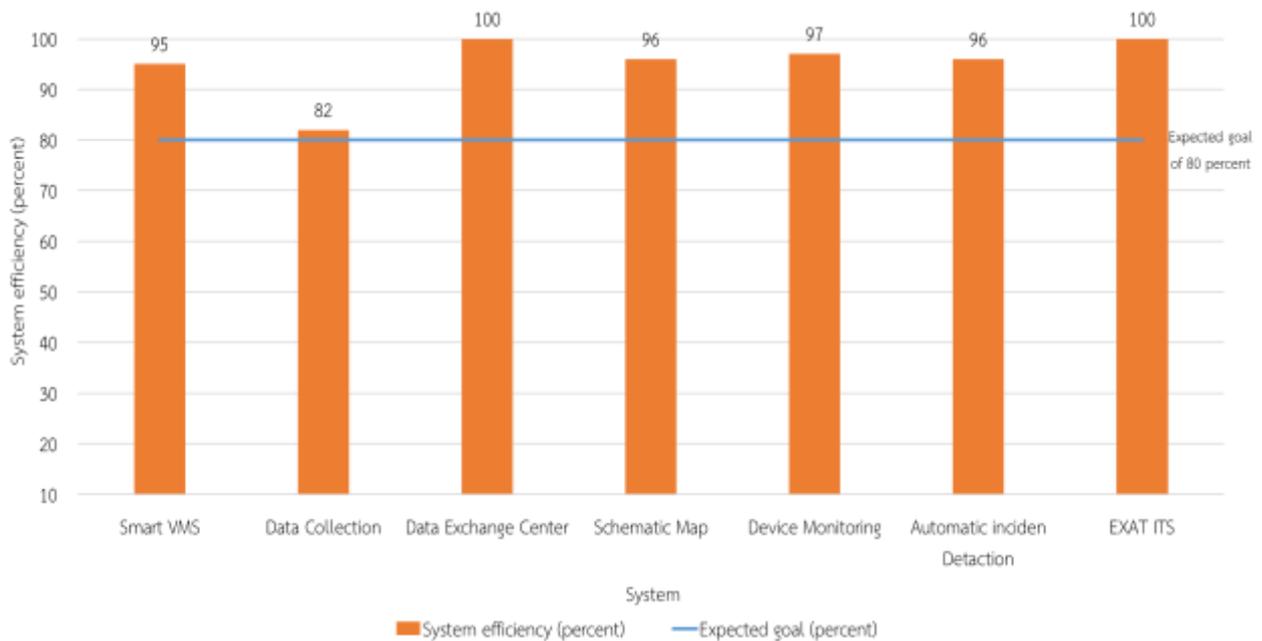


Figure 20 Efficiency evaluation of the seven systems

Apart from development and improvement in innovation, EXAT also improved the service efficiency of toll collector in order to during rush hour there are 2 collectors in each toll booth to increase speed of cash payment that solve traffic congestion at toll plaza.

#### 6.4.1.2 Development of Easy Pass system

In the fiscal year 2016, EXAT has prepared its system to support M-Pass and Easy Pass under the Electronic Toll Collection system (ETC), a joint development between Expressway Authority of Thailand (EXAT), Department of Highways and Krung Thai Bank. The project was signed in a memorandum of understanding (MOU) on August 14, 2015. Krung Thai Bank was assigned as the Center Clearing House (CTCH). The system was formally unveiled to the public on November 1, 2016.



Figure 21 M-Pass and Easy Pass <sup>1</sup>

#### 6.4.1.3 Maintenance of the expressways (G4-DMA), health and safety of customers (G4-PR1)

At the present time, many commuters choose expressways as their trip. In order to avoid traffic jams on the road and faster travel. As a result, The Expressway has to accommodate a large volume of traffic. So, EXAT constantly prioritizes the maintenance of the its expressways. In order to support the growing number of users and vehicles and increase safety of expressway users.

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<sup>1</sup> Users of soon-to-expire Easy Pass can check their status and change their cards at [http://www.thaeasypass.com/etcsite/index.php?option=com\\_content&view=article&id=85&Itemid=85&lang=th](http://www.thaeasypass.com/etcsite/index.php?option=com_content&view=article&id=85&Itemid=85&lang=th)

In the fiscal year 2016, EXAT has proceeded with its plan to inspect and maintain the expressway under the designated timeframe, successfully covering 100 percent of its routes. The methods of inspection and maintenance of expressways are illustrated as followed:



Figure 22 Inspection of expressways

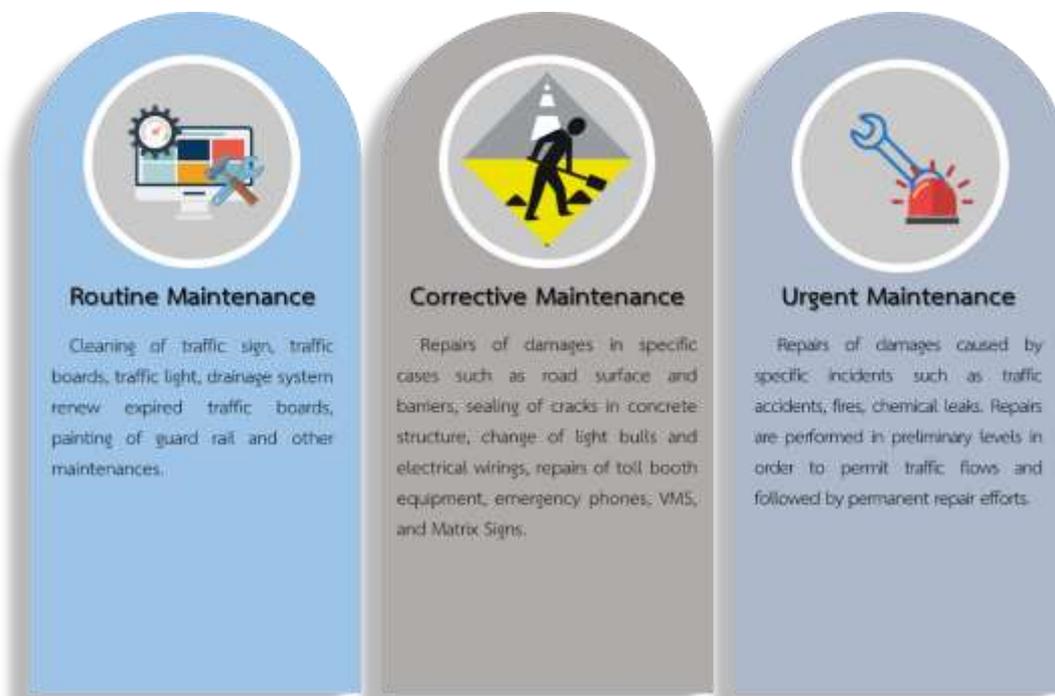


Figure 23 Maintenance of expressways

#### 6.4.1.4 Assistance and rescue on expressways in cases of emergency

To manage emergency situation on expressways and prevent danger to users, EXAT has compiled a Business Continuity Plan (BCP) for the fiscal year 2016, which manages risk and protocols for emergency situations. They are separated into 2 parts as followed:

- Emergency situations on expressways that causes traffic shutdown, such as serious accidents structural damages caused by earthquakes, terrorism, severe fires; and other disasters.
- Emergency situations at toll plazas that causes traffic jam entries expressways, such as malfunction in toll booth system caused by flood or fire; malfunction in Central Computer System caused by disasters, terrorism, hacking, system error, fire; protests occurring at toll plazas; and other disasters.

EXAT has prepared readiness of its staff in rescue efforts by compiling a Business Continuity Plan and manuals for different situations, such as manual for rescue workers and engine operators in the event of providing assistance to scenes of accidents; manuals for communication staff; training of rescue workers about techniques in providing aid in serious accidents; and launch of public relations effort on crises that arise from accidents, natural disasters or abnormal sequences that affect the public and expressway users. Furthermore, EXAT has prepared readiness of its staff for inspection of damages in affected areas by compiling different manuals for preliminary damage evaluation, prevention and mitigation of chemical hazards, recovery in the aftermath of chemical hazard and waste management at expressway facilities. Also included are prevention and preparation plan for flood at EXAT headquarters in Chatuchak district. The protocols and time frames for responses to emergency situations on the expressways and toll plazas are detailed as followed:

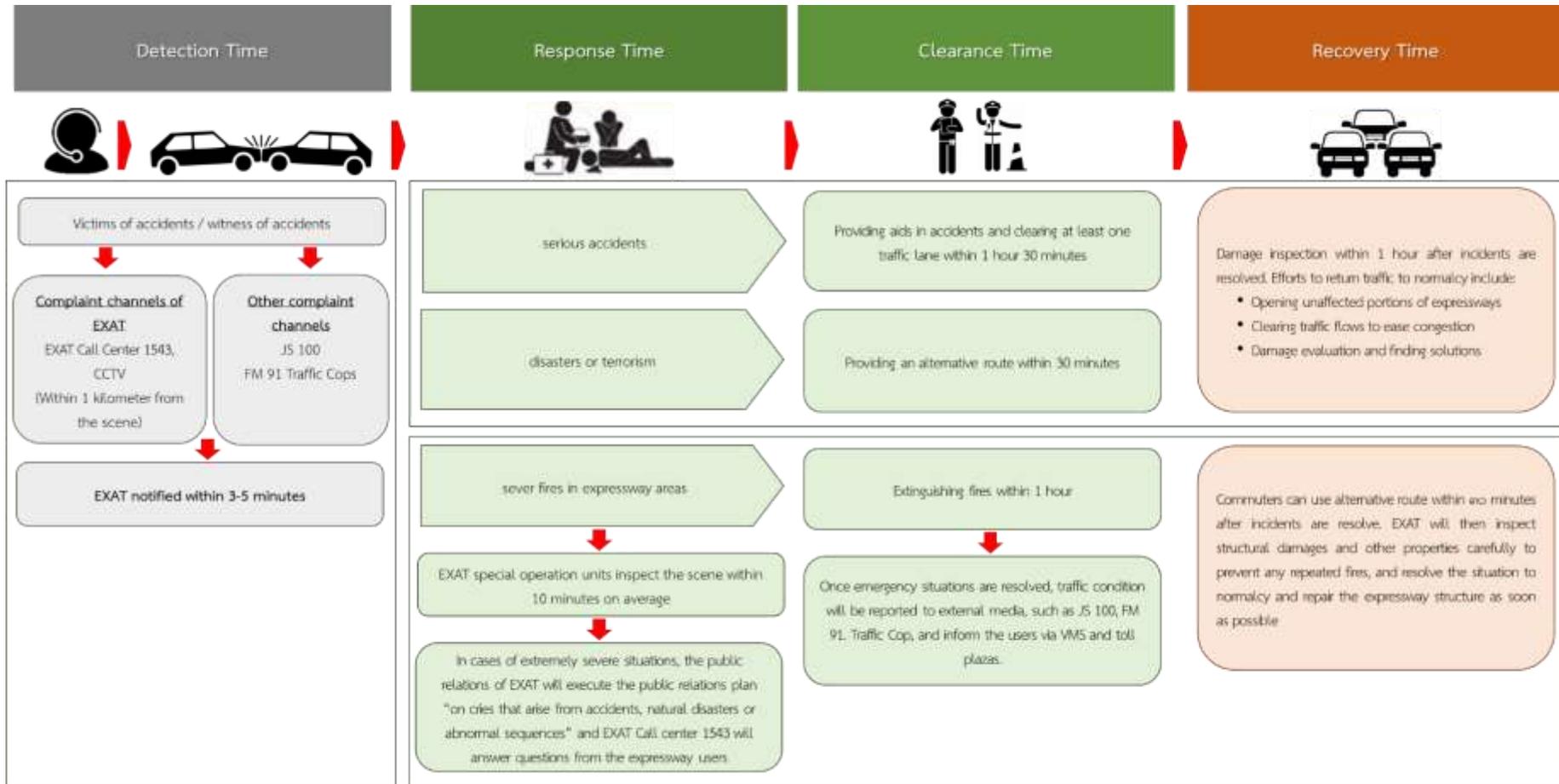


Figure 24 Protocols in emergency situations on expressways

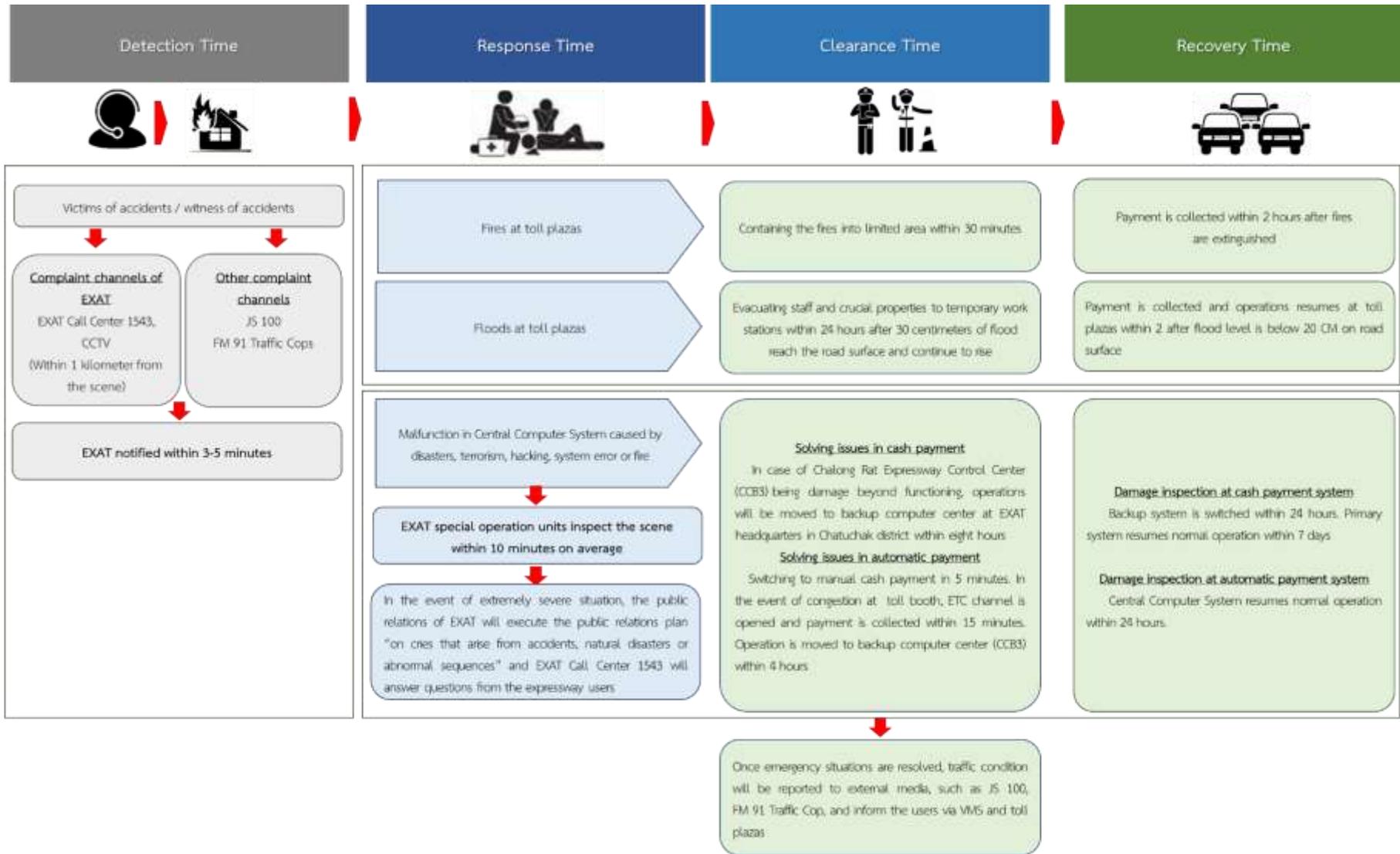


Figure 25 Protocols in emergency situations at toll plazas

Developments of innovation and Business Continuity Plan which contains efficient and systematic plans for emergency situations throughout the fiscal year 2016 resulted in a decrease of 0.97 percent in the number of accidents compared to the fiscal year 2015, or 995 accidents, as illustrated in Figure 26.

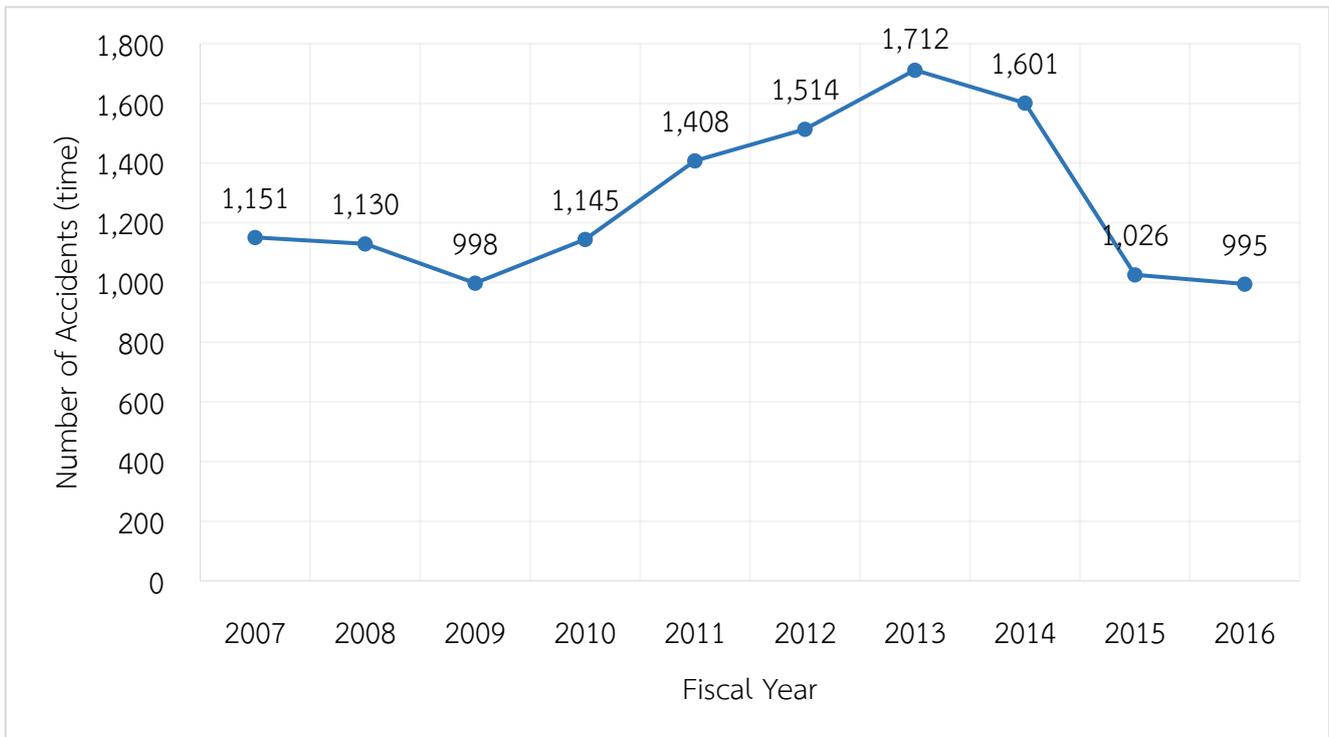


Figure 26 Number of accidents on expressways between fiscal year 2007 - 2016

Furthermore, EXAT has analyzed the areas that high risks for accidents on expressways and developed offensive prevention of accidents such as setting up 24-hour rescue and patrol vehicles, setting up rescue vehicles during rush hours, warning commuters to maintain caution through VMS, inspection of trucks weight in accordance with the law, enforcement of traffic law through speed test, enforcing appropriate safety measures on pickup trucks, inspection of vehicles carrying hazardous substances, installing crash cushions at road forks and building small rumble strips.

Table 15 Accidents in risky areas on expressways in the fiscal year 2016

Risky areas on the expressways	Accident (times)
Bang Kaeo Toll Plaza (Entry), Kanchanaphisek (Bang Phli-Suksawat) Expressway	11
Sri Nakin Toll Plaza, Si Rat Expressway	10
Prachachuen Toll Plaza (Exit), Si Rat Expressway	9
Km. 00+500A Si Rat Expressway	7
Prachachuen Toll Plaza (Entry) Si Rat Expressway	7
Bang Kaeo Toll Plaza (Exit 2), Kanchanaphisek (Bang Phli -Suksawat) Expressway	7
<b>Total</b>	<b>51</b>



Figure 27 Installation of Crash Cushions at road forks



Figure 28 Installation of Rumble Strips

Furthermore, EXAT has secured insurances for the events of accidents occurring at expressway toll booths. In the fiscal year 2016, instances of toll booth barriers hitting user vehicles and use vehicles crashing through toll barriers were recorded. In these case, insurance companies acted as mediators to settle disputes and determine the party responsible. If the expressway users were at fault and a settlement could not be reached, the cases would enter court procedures. If EXAT was at fault, the insurance companies would be responsible for compensation payments. In the fiscal year 2016, 75 such cases took place on 3 routes, which are Burapha Withi, Kanchanaphisek (Bang Phli - Suksawat) and Chaloem Maha Nakhon expressways. However, EXAT is constantly improving and inspecting its equipment to reduce risks of repeated incidents and prevent damages to expressway users.

#### **6.4.2 Management of relations with renters and users of expressway properties (G4-EC7, G4-EC8)**

Lands under EXAT ownership not used for expressways are leased and utilized by other parties to maintain the areas and prevent trespassing. Renters of these expressway properties are another group of customers prioritized by EXAT. A subcommittee is responsible for development and management of expressway estates, and for deliberation of granting leases or other rights over estates worth more than 100 million baht or tied to any lease or other rights longer than five years, with the exceptions of leases or other rights granted to state agencies. These decisions are then deliberated by an EXAT committee. Members of the public can rent expressway properties for commercial purposes, such as building car parks, building entries and exits, building gardens, setting up advertisement billboards and signs, installing mobile phone line networks, setting up phone signal pylons and setting up site offices in accordance with contracts made with state agencies.

Furthermore, EXAT also permits state agencies to utilize its properties for public services and benefits of local communities, so long as they fall under regulations and categories designated by EXAT. These projects include building parks, gardens, sport areas, shortcuts, street lights, waterworks network, pedestrian bridges, pumps, sewers, road extensions and sidewalk.

From past to the present day, EXAT has constructed and opened 8 expressway routes and 3 interlinks covering a distance of 224.59 kilometers. Due to the expressway structures that involve both elevated and ground levels, there are lands under and around the expressways under ownership of EXAT, called expressway properties. These lands, which can be utilized, cover an area of 1,160,369 square two-meters (data as of 30 September 2016). They are separated into:

- Urban areas: They comprised of areas in Chaloen Maha Nakon, Si Rat, Chalong Rat (Ram Inthra - Outer Bangkok Ring Road extension), Bang Na – At Narong and certain portions of Udon Rattaya (Chaeng Watthana - Srisaman Road) Expressways. They cover an area of 631,098 square two-meters.
- Non-urban areas: They comprised of Udon Rattaya (Srisaman Road - Bang Pa-In), Burapha Withi and Kanchanaphisek (Bang Phli - Suksawat) Expressways. They cover an area of 529,271 square two-meters.

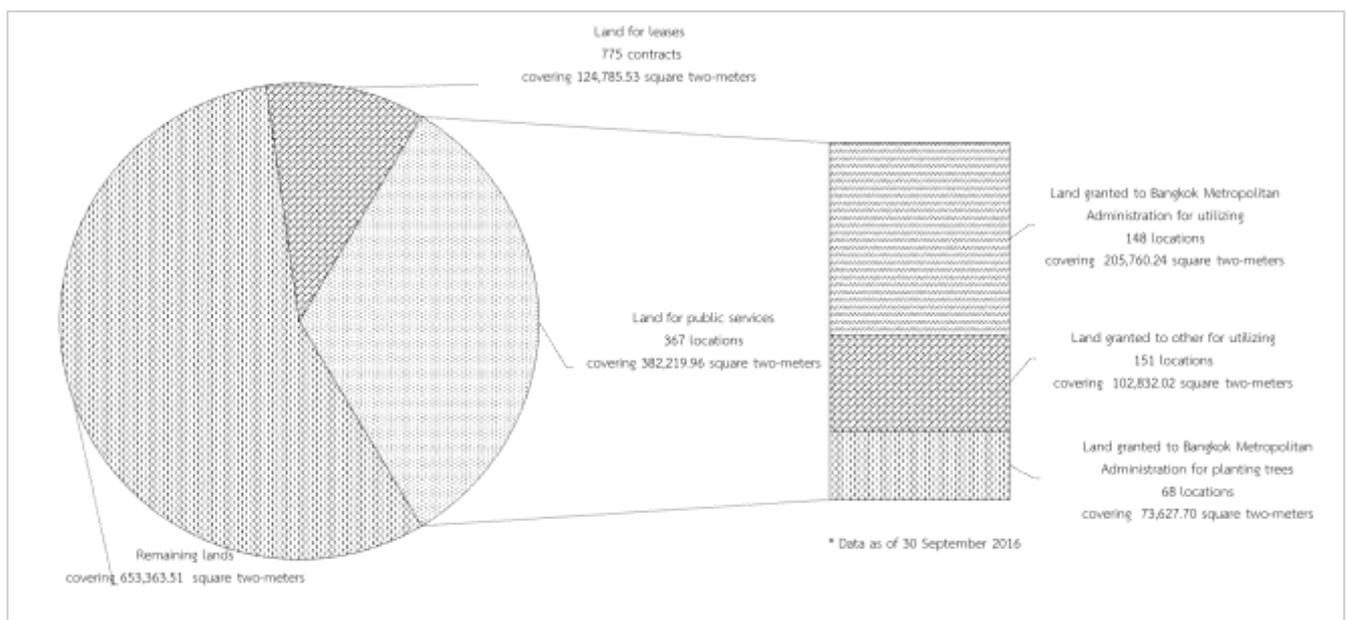


Figure 29 Proportions of land uses of EXAT properties

The fiscal year 2016, EXAT conducted an opinion survey of rents of expressway properties. The result found that 80.04 percent of renters are satisfied by services of EXAT. A majority of renters want EXAT to consider adding new payment methods for convenience of paying rents.

Therefore, EXAT has responded to the renters' demands by increasing payment channels at EXAT office, One Stop Service Centers, banks, Counter Services in shopping malls and convenience stores, post offices and internet banking.

Note: Those interested in renting the areas can study the procedures and details at <http://www.exat.co.th/index.php/page/details/37>

## **6.5 Complaints mechanism**

EXAT is acutely aware of impacts from its works, whether in pre-construction, during construction and throughout the project duration, in economic, societal and environmental impacts. Therefore, EXAT has designated complaints channels and management in accordance with the 2007 Constitution, Prime Minister Office Regulation on Public Hearing (B.E. 2548) and Prime Minister Office Regulation on Complaint Management (B.E. 2552). Throughout the fiscal year 2016, EXAT has not violated any law and was not subject to any fines.

Nevertheless, EXAT prioritizes every complaint it received. It has established a central unit to receive complaints and coordinated with relevant agencies to quickly solve any issues. Complaints are generally resolved within three days and can be submitted through channels, such as automatic EXAT Call Center (1543).

Furthermore, EXAT has developed complaint database for accurate and reliable storage of its complaints, resulting in reduction of time, steps and redundant operations.

EXAT has established various channels for receiving complaints. In the fiscal year 2016, EXAT received 170 complaints, 159 of which have been solved. The efficiency of managing complaints by EXAT therefore stands at 93 percent, higher than the expected goal of 75 percent. Complaints are received and managed through these channels:

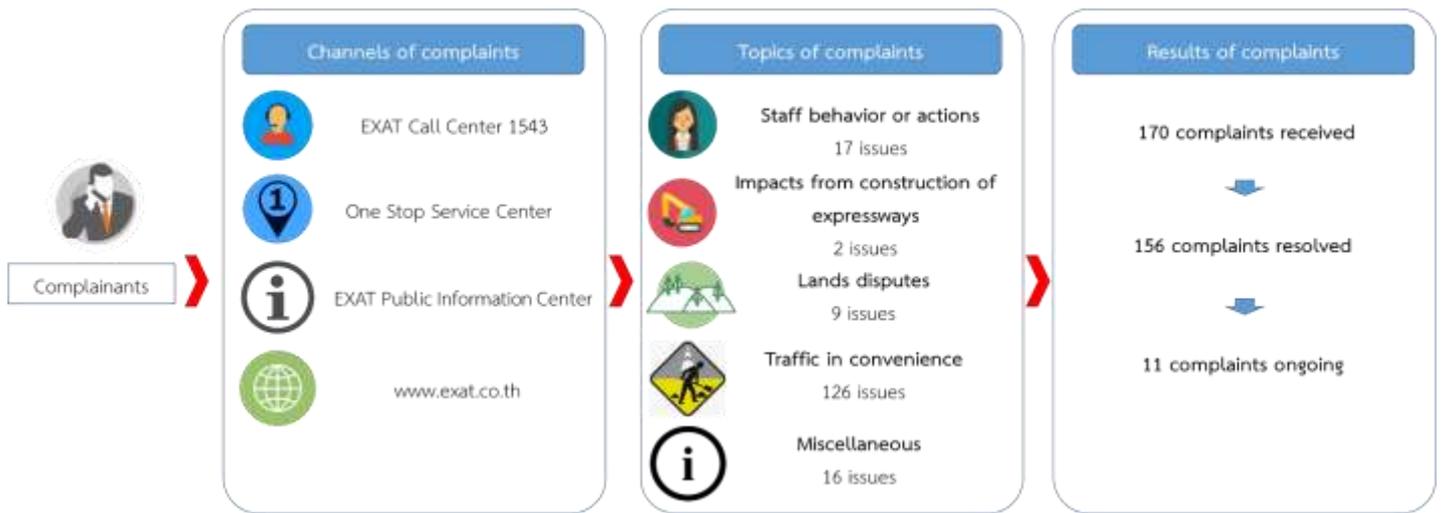


Figure 30 EXAT management of complaints

## 7 Awards and Recognition in 2016

### EXAT Receives Outstanding Award for Sustainable Development Report 2016

EXAT was among the 23 organizations receiving the Outstanding award in the area of sustainability in 2016 from the Thai Registered Companies and CSR Club. This is the fourth consecutive year in which EXAT was named for this award, marking another step of success in its corporate social responsibility efforts



### EXAT named for SDG-Enhanced Sustainability Report 2016 Certificate

EXAT was the first organization under the Ministry of Transport to have been awarded the SDG-Enhanced Sustainability Report certification from Thaipat Institute - Foundation for Thailand Rural Reconstruction Movement Under the Royal Patronage of Thailand in recognition of its effort in making the SD report based on sustainable development goals.



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	<ul style="list-style-type: none"> <li>• GHG emissions</li> </ul>	<ul style="list-style-type: none"> <li>• G4-EN27</li> </ul>	58
	<ul style="list-style-type: none"> <li>•Compliance with laws and regulations</li> </ul>	<ul style="list-style-type: none"> <li>• G4-SO8, G4-PR2</li> </ul>	73-75,77
	<ul style="list-style-type: none"> <li>•Foreign direct investment</li> </ul>	<ul style="list-style-type: none"> <li>• G4-EC8</li> </ul>	75-76

**Opinion Survey of the Corporate Social Responsibility Report (CSR Report)  
Expressway Authority of Thailand (EXAT) 2016**

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1. Please specify your status in relation to EXAT

- Expressway customer       Government sector as the owner       EXAT officer
- Those affected by expropriation       EXAT business partner       Expressway surrounding community
- Social       Other (please specify).....

2. From which channel did you receive EXAT CSR Report 2016

- EXAT website       Function meeting       Seminar / Lecture
- Received from EXAT       QR Code       Other.....

3. Which aspects do you think are important for EXAT sustainable growth

- Economic (please specify.....)
- Social (please specify.....)
- Environment (please specify.....)

4. The level of your satisfaction with this CSR Report 2016

- |                                     |                            |                              |                           |                                         |
|-------------------------------------|----------------------------|------------------------------|---------------------------|-----------------------------------------|
| Completion of the content           | <input type="radio"/> Very | <input type="radio"/> Fairly | <input type="radio"/> Low | <input type="radio"/> Needs improvement |
| Key issues included in the report   | <input type="radio"/> Very | <input type="radio"/> Fairly | <input type="radio"/> Low | <input type="radio"/> Needs improvement |
| Interesting information             | <input type="radio"/> Very | <input type="radio"/> Fairly | <input type="radio"/> Low | <input type="radio"/> Needs improvement |
| Design of the report                | <input type="radio"/> Very | <input type="radio"/> Fairly | <input type="radio"/> Low | <input type="radio"/> Needs improvement |
| Writing style is easy to understand | <input type="radio"/> Very | <input type="radio"/> Fairly | <input type="radio"/> Low | <input type="radio"/> Needs improvement |
| Overall satisfaction                | <input type="radio"/> Very | <input type="radio"/> Fairly | <input type="radio"/> Low | <input type="radio"/> Needs improvement |

5. Do you think the key aspects important to EXAT sustainable growth have been completely specified in the report.

- Yes
- No (please specify the issues that should have been included.....)

6. Your suggestions for the improvement of next year's CSR report

.....

**This survey can be personally returned or sent by mail to**

1. All EXAT toll plaza
2. EXAT One Stop Service, Head Office, Phaholyothin Road, Chatuchak
3. Corporate Social Responsibility Section, Public Relations Division, Office of the Governor, Expressway Authority of Thailand, 2380 Paholyothin Road, Senanikom, Chatuchak, BANGKOK 10900  
TEL: 0-25589800 ext. 2325-8; facsimile 0 2579 9156