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TOWARDS ESG SCHEME OF THE REAL ESTATE AND CONSTRUCTION INDUSTRY IN THAILAND

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Abstract

ESG (Environmental, Social, and Governance) is a crucial factor in the real estate business in Thailand, as it helps businesses develop sustainably in the long term. This focus on ESG contributes to the sustainability of the organization, as it involves the efficient use of resources, reducing greenhouse gas emissions, using renewable energy, and promoting the quality of life for residents and the community. The Stock Exchange of Thailand (SET) encourages businesses to operate responsibly for stakeholders by taking into account ESG factors. The SET ESG Ratings, a government agency, has assessed 106 companies, with twenty-Eight passing the assessment. Companies that comply with good governance principles and take care of stakeholders' interests build trust from investors and customers.

The ESG Index, also known as the Sustainability Index, is an investment index that takes into account sustainability criteria to motivate organizations to focus on issues. The SET ESG Ratings evaluate companies' practices in environmental management, energy management, water management, waste management, and pollution management. In Thailand, the Stock Exchange of Thailand has prepared the "THIS Sustainable Stocks List" since 2015, with 32 companies under property and construction under the ESG policy, then later become 28 companies. The Group of Property Development and Construction has four categories: CONMAT (Construction Material), PROP (Property Development), PF&REIT (Real Estate Funds and Real Estate Investment Trusts), and CONS (Contractors). By incorporating ESG practices into business operations, companies can increase competitiveness and focus on all stakeholders, contributing more sustainably for the future.

Keywords: ESG, Real Estate, Rating

Introduction

Business Operations Therefore, focusing on the economy, society, and environment (ESG) has become more important in this century. One of the factors that investors use to consider investing is knowing how the company manages ESG risks so that those involved and investors can be assured that they are participating in supporting companies that operate responsibly and for true sustainability. The Bank of Thailand's guidelines have stated an important agreement from the COP26 meeting held in 2021 on controlling the global average temperature from rising to more than 1.5 degrees Celsius. Zero carbon emissions target Supporting clean technology, including financial support for environmentally friendly technology. BOT.OR.TH ESG (Environmental, Social, and Governance) is very important for the real estate business in Thailand. This is the factor that helps businesses develop sustainably in the long term. Focusing on ESG in the real estate business means a lot to stakeholders, whether it is investors, buyers, or the surrounding community. (Kasiti Ketsuriyong et al, 2002)

1. Environmental: The development of real estate projects must take into account the efficient use of resources. Reducing greenhouse gas emissions and using renewable energy, such as designing buildings to be energy-efficient or having a good waste management system. In addition, the use of environmentally friendly building materials enhances the image of the project. This makes it possible to attract customers who are interested in sustainability.

2. Social in this sense. The real estate business must focus on the development of the surrounding society by taking into account the quality of life of residents and the community. Designing a space that is conducive to a good, safe, and comfortable life is an important factor. It also plays a role in creating jobs and promoting the local economy, which helps build a good relationship between the company and the community.

3. Governance: Having a transparent and auditable management system is the core of real estate project management. Companies that comply with good governance principles, such as compliance with laws and regulations, and take care of the interests of stakeholders enable the company to build more trust from investors and customers.

The Stock Exchange of Thailand (SET) is a government agency that supervises and encourages the business sector to operate responsibly for stakeholders by taking into account Environmental, Social and Governance (ESG) to build strength and sustainable growth through the initiative. Announcement of THSI Sustainable Stock Results in 2015 by the SET In 2023, the SET changed the name of THSI (Thailand Sustainability Investment) to SET ESG Ratings. Business operations that take into account increasing ESG factors. A total of 106 companies, of which The Twenty Eight companies have passed the assessment, then the researcher picked the sample of each category who did the practices in different solutions according to their business orientation. Although environmental responsibility Environment, Social, Government (ESG) is a concept that contributes to the sustainability of the organization, ESG implementation can lead to higher costs for companies, so entering the assessment is something to consider carefully.

Objective

The objectives of this study are to: 1. Study and compile a list of listed companies in the real estate sector with outstanding environmental performance. Environment, Social, and Governance from the SET ESG Ratings of the Stock Exchange of Thailand 2. Analyze the strategies of listed real estate companies to study each factor of the transition to an organization with ESG as an operational goal.

Scope of Research

The researcher collected the data used in the research, which is secondary data, to review the ESG work of 28 companies in the real estate and construction sector from the 2023 Sustainability Report.

Literature Review

Considering ESG Index theory based on the study of ESG assessment guidelines in various countries in recent years, such as overseas stock exchanges. An investment index that takes into account sustainability criteria helps motivate organizations to turn their attention to issues. More Sustainability, it is also known as the ESG Index or Sustainability Index, such as the Dow Jones Sustainability Index of the New York Stock Exchange, the Financial Times Stock Exchange Good Index (FTSE Good) of the London Stock Exchange, and the Jantzi Social Index of the Cannes Stock Exchange. In 2016, the World Bank announced the 100 largest global economies, finding that the highest GDP of 69 belongs to large corporations, and only 31 are the GDP of the country. Therefore, economic power is increasingly shifting to organizations. Therefore, it is recognized as playing a greater role in the operation of the organization to help solve social problems. Adapting the work process to the work environment.

A listed company that has been declared a sustainable stock valuation result by SET ESG Ratings is a company that has incorporated the concept of sustainability into its business processes. Taking into account risk management, preparing for emerging risks, and being ready to cope with social and environmental changes. Increase competitiveness and focus on all stakeholders. The environmental management policy includes: performance in 1. Environmental Management; 2. Energy Management; 3. Water Management; 4. Waste, Waste and Pollution Management 5. Management to Reduce Greenhouse Gas Problems 6. Other Sustainable Stock Evaluation SET ESG Ratings in the form of ratings divided into 4 levels: AAA, AA, A, and BBB. (Settrade, 2566)

Methodology

The methodology is to pick up all rating companies and study the practices of the best 3 companies for analysis of their business type and keenness and coverage of their business to achieve strategy to meet AAA level.

For Thailand, since 2015, the Stock Exchange of Thailand has prepared the "THIS Sustainable Stocks List." There are 32 companies on the list under property and construction; they are organized under the policy of "ESG" The Group of Property Development and Construction has four categories: CONMAT (Construction Material), PROP (Property Development), PF&REIT (Real Estate Funds and Real Estate Investment Trusts), and CONS (Contractors) (SET, 2566). Scoring result of Thailand ESG Index has shown in Figure 1

Listed companies that have been selected for inclusion in SET ESG Ratings will have been announced their ESG ratings in ratings scale as follows:



Figure 1: Thailand ESG Rating Index
Source: SET (2566)

The 28 Companies Ranking after Rating has shown on Table 1

Table 1: SET (Stock Exchange of Thailand) ESG Range Index

	AMATA	SCC	WHA	AMATAV	AP	BRI	CPN	DRT	EPG	FPT	NOBLE	NVD	ORI	SC	SCCC	SIRI	SPALI	ASW	AWC	CK	LH	PPP	S	STEC	SYNTEC	TOA	TPPL	PSH
AAA																												
AA																												
A																												
BBB																												

Research Result

There are 3 companies in the AAA rating and 14 companies in the AA rating, while another ten companies are in the A rating and only one company, PSH, is in the BBB rating, as shown in the in the acting listing below.

Table 2: Listed company acting for ESG

Company	Acting / Policy to comply with ESG	Environmental Acting
AMATA (AAA)	Using reverse osmosis technology, the treated water will be sent through the water reclamation system	/
	As for the water that has been repaired, it is used in the cooling system.	/
	The remaining of treated water 15% will be used for watering green area.	/
WHA (AAA)	Launching policy to provide work process to reduce waste from operations and manage waste systematically	/
	Precast Disc Reinforced concrete from the factory is used in construction to reduce both dust and noise pollution.	/
	Clear plastic bottles are recycled after waste separation.	/
	Use a tank truck to deliver chemicals for the wastewater treatment system instead of packaging hazardous chemicals.	/
	There is a process to produce soil amendments from waste sludge.	/
SCC (AAA)	Aiming to reduce greenhouse gas emissions to net zero by 2050	/
	Committed to increase the use of biomass fuels to replace fossil fuels by 100% by 2022	/
	Machines are installed to increase the mark. Capacity to accommodate renewable fuels based on calorific value from 19.9% to 26.9% at Kaeng Khoi Cement Plant. Adjust the feed point and fuel conveyor system in the cement incinerator to receive fuel. A variety of substitutes	/
	Processing agricultural waste materials and waste into biomass fuel, industrial waste and municipal waste to be processed into RDF fuel to replace fossil fuels	/
	All SCG business groups are committed to using solar energy in all factories. Floating Solar Farm and Solar Roof are installed.	/
DRT (AA)	Replace equipment and adjust the operating system to use electricity efficiently.	/
	Reduce air leakage in compressed air production lines.	/
	Improved the Auto Drain system of the Zero Loss Air Compressor	/
	Improved Motor Mixer to High Efficiency	/
	Optimized the blower head to chase away debris after forming roll.	/
	Reduce the use of air blowing spouts and oil spray kits.	/
Improved the motor size of the booster pump of the water	/	

Company	Acting / Policy to comply with ESG	Environmental Acting
	Take the leftover water and reuse it with the next Autoclave	/
CPN (AA)	Improvement the toilets in various projects along with Water Saving Sanitary	/
	Adjust the piping system for washing in water-saving.	/
	Apply Floor Cleaning Technology floor without using water	/
	Recycled water is used in the spring water system to reuse condensate water condensate from the cooler.	/
	Installed water leak detection and tracking system. Always check carefully	/
	Installation of a recycled water production system. Inside the shopping center.	/
EPG (AA)	Reduce water use from groundwater sources. Increase the proportion of surface water use from the company's own storage sources.	/
	Introduce new technologies to reduce water consumption in the production process, such as: replace general tap to saving mode	/
	Improve the cold water treatment system to a closed system so that the circulating water can be reintroduced into the system by reducing the addition of bile into the system.	/
FPT (AA)	Use 3 - 4.5 liters of water-saving toilet per flush by Sanitary replacement	/
	Do data analysis to find ways to reduce water consumption.	/
	Choose plants that require little water or are drought-tolerant to plant in the project.	/
NOBLE (AA)	Cooperate with contractors in the management of waste from the construction process.	/
	The Noble Form Thonglor project has campaigning for employees to dispose of garbage properly	/
	Initiated the return of gypsum scrap and pile head scrap to manufacturers to be crushed into Recycled Coarse Aggregate	/
	Supplemented by the Waste to Wear project that allows employees to sort and exchange waste for T-shirts	/
SC (AA)	The steel is cut and bent to order from a factory called Cut and Bend which can reduce waste materials on site.	/
	Reduce the amount of steel bar orders by more than 15%.	/
	Reduce scrap disposal Reduce fuel consumption in transportation	/
	cooperating with partners in the management of waste concrete debris	/
SPALI (AA)	Management of excavation and reclamation work by surveying the soil surface first. Design the project to calculate the volume of soil to be excavated during construction, such as pile drilling	/
	Minimize disposal and reduce air pollution from trucks, soil handling, etc. by machine maintenance.	/
	Choose the workpiece. Photos from the factory can reduce waste at construction sites, such as toilets. Finished doors and windows	/
BRI (AA)	Support the reduction of greenhouse gases by use building materials that reduce greenhouse gas emissions, such as semi-gross wall paints with the Carbon Footprint label	/
	Installed 5Star Air Con for saving refrigerant water that reduces CFC emissions.	/
	Use laminate flooring that reduces emissions.	/
	Installation of Solar Roof at 3 Clubhouse Projects	/
	Cut the EV charger in the common area of the project	/
	Install EV Charger Connection Point	/
DRT (AA)	Establish guidelines on maximizing energy efficiency by launching policy for suppliers improvement in Transportation	

Company	Acting / Policy to comply with ESG	Environmental Acting
	Use of an integrated transportation system. Both boats which reduce traffic congestion and road accidents in indirect ways	/
SCCC (AA)	Committed to reducing the proportion of clinker in cement products in accordance with the guidelines of the National Energy Agency (IEA) .	
	Cement Technology Group by starting to set a reduction target for ordinary Portland cement and supporting the use of hydraulic cement and cement.	/
	The net greenhouse was 607 kg. of carbon dioxide per ton of cemented materials, representing a reduction rate of 3.7% compared to 2020	/
FPT (AA)	Prepared a Net Zero Carbon Roadmap covering 3 main business segments: residential real estate, industrial real estate, and commercial real estate.	/
	building All new projects from 2022 will use green building standards.	/
	Installation of solar power generation system at the office building.	/
ORI (AA)	Aiming to develop the business towards carbon neutrality by 2040 and Net Zero by 2044. Define clear short-term and long-term plans and indicators, such as: Use of friendly materials environment , Reduce electricity consumption, -Reduce the amount of waste.	/
SC (AA)	Aim to set a Net Zero target by 2065 with environmental practices to reduce greenhouse gas emissions under the name of SCero Mission in policy	/
SIRI (AA)	Low-carbon corporate strategies that focus on energy efficiency, such as installing solar roofs and EV chargers in all houses, clubhouses, new projects installing solar roofs, new common areas installing solar wastewater treatment systems, and various machines switching to biodiesel.	/
	Carbon reduction strategy throughout the value chain with sustainable procurement.	/
	Strategies to invest in green innovations related to clean energy technologies and environmentally friendly construction. Environment	/

Conclusion and Discussion

The three AAA companies are AMATA; they are in well water management as they are major players of industrial zones under Amata City Real Estate Development by volume they can invest for using reverse osmosis technology, and the treated water will be sent through the water reclamation system. They have their own reservoir for reserving water. As of water management keen, they also manage cold water for cooling towers and provide treated water 15% to be used for watering green areas as well as making business even from treated water.

The WHA, a major player in 2023-2024 after COVID-19 to be warehouse zone development with policy, has been launching to provide work processes to reduce waste from operations and manage waste systematically with AAA rating. They also do precast fabrication of disc-reinforced concrete from the factory, which is used in construction to reduce both dust and noise pollution. With the new era for development policy, they also used clear plastic bottles that are recycled after waste separation. Logistically, they use a tank truck to deliver chemicals for the wastewater treatment system instead of packaging hazardous chemicals, as well as providing the process to produce soil amendments from waste sludge. All action for ESG in several categories continually brought them to be AAA rating currently. For SCC, they are a major player in the cement industry in Thailand; their investment and reputation will lead them to international levels, aiming to reduce greenhouse gas emissions to net zero by 2050 and to commit to increasing the use of biomass fuels to replace fossil fuels by 100% by 2022. They can provide preventive maintenance on the machines by marking and labeling. The capacity to accommodate renewable fuels based on calorific value from 19.9% to 26.9% at Kaeng Khoi Cement Plant. Adjust the depot and fuel conveyor system in the cement incinerator

to receive fuel. A variety of substitutes into the agriculture industry by processing agricultural waste materials and waste into biomass fuel, industrial waste, and municipal waste to be processed into RDF fuel to replace fossil fuels. The SCG business groups are committed to using solar energy in all factories. Floating Solar Farm and Solar Roof are installed.

On the other hand, the A rating, for example, ASW, as they are Assetwise (ASW) is a real estate development company in Thailand. The focus is on developing condominium housing projects. Housing and various types of residential projects with an emphasis on modern project design. Meet the needs of a variety of consumers and build a complete facility. Assetwise focuses on project-oriented development. The location is convenient for transportation, especially in Bangkok and the surrounding area. The company aims to meet the needs of various customer groups, such as the new generation. Families, including those who want to invest in real estate. Therefore, they only focus on material, construction management, and minor action in providing waste water to landfills. eg. Texca Wall technology is an environmentally friendly wall that has the advantage of reducing construction waste by designing walls according to the required size. The concept of a zero landfill station is used in the head office, and waste of any kind has a proper management route to convert it into energy, use it as animal feed, or make fertilizer.

ESG Impact on Real Estate Business in Thailand in Investment attraction: Institutional investors and funds are increasingly focusing on ESG because it can reduce risk and generate long-term returns. By Creating a competitive advantage: Projects that prioritize ESG are often socially recognized and receive more attention than projects that do not. Compliance with laws and standards: The Thai government is starting to promote the development of more sustainable projects. There are environmental and social measures and regulations that must be followed, such as promoting environmentally friendly construction. Overall, ESG is an important tool that helps the real estate business in Thailand grow sustainably while building confidence in the market and responding to changing consumer needs. All listed companies apply the social activities with the community and submit the annual report to the Department of Revenue on time.

Abbreviation: Index : The listed companies with the results of the SET ESG Ratings 2023 are 32 companies, including: Construction Services (CONS), CK PCL Ch. Karchang, STEC Plc. Sino-Thai Engineering & Construction, SYNTEC PCL Syntec Construction, TTCL , Property Development (PROP), AMATA PCL AMATA CORPORATION AMATAV PLC. Amata VN, AP Plc. AP (Thailand) ASW Plc. Assetwise AWC Plc. Asset World Corp. BRI Plc. Britannia, CPN Plc. Central Pattana, FPT Plc. Frasers Property (Thailand) LH Plc. Land & Houses, NOBLE PCL Noble Development, NVD Nirvana Development Plc. ORI Plc. Origin Property, PSH Plc. Pruksa Holding, S Plc. Singha Estate. SC PCL SC Asset Corporation, SIRI PCL Sansiri, SPALI PCL Supalai, WHA Plc. WHA Corporation, Construction Materials (CONMAT), DRT Plc. Diamond Brand Products, EPG Plc. Eastern Polymer Group, PPP Plc. Premier League Products, SCC PCL Thai Cement, SCCC Plc. Siam Cement, TOA Paint (Thailand) Plc. , TPIPL TPI Polene Plc., ARROW PCL Arrow Syndicate, PPS PCL Project Planning Service . THANA PCL Thanasiri Group.

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