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# Technical Assistance Consultant's Report

Project Number: 51413-001

Knowledge and Support Technical Assistance (KSTA)

July 2023

## GREEN FINANCE (INSURANCE) PRODUCTS IN MONGOLIA

### Final Report

This consultant's report does not necessarily reflect the views of ADB, or the Government concerned, and ADB and the Government cannot be held liable for its contents.

Asian Development Bank

### CURRENCY EQUIVALENTS

Currency Unit	–	togrog (MNT)
MNT1.00	=	\$0.0003482
\$1.00	=	MNT3,482

### ABBREVIATIONS

Abbreviation	Meaning
<b>ADB</b>	Asian Development Bank
<b>BOM</b>	Bank Of Mongolia
<b>BOP</b>	Balance Of Plant
<b>CAGR</b>	Compounded Annual Growth Rate
<b>CAT</b>	Catastrophic
<b>CCS</b>	Carbon Capture And Storage
<b>CO2</b>	Carbon Dioxide
<b>CV</b>	Commercial Vehicle
<b>DSU</b>	Delay In Startup
<b>ESG</b>	Environmental, Social And Governance
<b>ESI</b>	Energy Savings Insurance
<b>EV</b>	Electronic Vehicle
<b>FRC</b>	The Financial Regulatory Commission
<b>GHG</b>	Greenhouse Gas
<b>GWh</b>	Gigawatt Hour
<b>HV</b>	Hybrid Vehicle
<b>KSTA</b>	Knowledge And Support Technical Assistance
<b>LLC</b>	Limited Liability Corporation
<b>MOF</b>	Ministry Of Finance
<b>MRV</b>	Measurement, Reporting And Verification
<b>MSME</b>	Micro, Small And Medium Enterprises
<b>NPRAEP</b>	National Program On Reduction Of Air And Environment Pollution
<b>O&amp;M</b>	Operation And Maintenance
<b>PSI</b>	Principles For Sustainable Insurance
<b>SDG</b>	Sustainable Development Goals

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# 1. INTRODUCTION

## 1.1. Context

The Asian Development Bank (ADB) approved the Knowledge and Support Technical Assistance (KSTA) for the Green Finance Policy Framework in Mongolia in November 2019. The KSTA aims to support the Government of Mongolia in advancing the green finance policy and regulatory framework and in undertaking capacity development to enhance capability to develop green finance projects and products.

Since 2019, the Mongolian green finance regulatory environment has witnessed some developments. For instance, the Mongolian Government have adopted several legislative changes encouraging introduction or scale-up of green finance products such as green bonds or green insurance (2021).

**Green insurance** is designed to solve environmental hazards and advance sustainability. The insurance industry offers a unique opportunity to contribute to this goal by providing coverage for environmentally friendly projects, promoting sustainable business practices, and encouraging investment in green technologies. Green insurance is a type of insurance that helps to protect the environment and combat climate change. Also known as eco-friendly insurance, it is an **economic incentive to encourage behavioral change**.

Global warming caused by climate change presents numerous economic, environmental and social challenges worldwide. Efforts to mitigate these challenges are being undertaken globally, and the insurance industry plays a significant role in these endeavors. Due to their nature, insurance companies have limitations on what they can insure. However, they can contribute to spreading the costs of losses by adjusting their pricing, terms, and conditions to account for climate-related risks. Insurers are also susceptible and sometimes lack sufficient data to make well-informed decisions. Consequently, they face difficulties protecting customers from natural disasters while providing adequate coverage. To overcome these challenges, insurance companies are developing advanced strategies that consider the threat of climate change, and one of the proposed strategies is developing green insurance products.

## 1.2. Objective of the Report

This report aims to support the government stakeholders in Mongolia, through an as-is assessment of insurance market in Mongolia, understand possible insurance products to be implemented in the country through use of international case-studies. This will incentivize an economic change to support the Net Zero targets set by the government.

Below mentioned areas are covered as part of this report across various chapters.

Section	Description
<b>Role of Green Insurance</b>	This section provides a detailed context on the use of green insurance across Asia, to help combat climate change, and as an economic incentive to encourage sustainable practices and technologies. The chapter covers the key principles of green insurance products and benefits.

<b>Section</b>	<b>Description</b>
<b><i>As-is Market Assessment</i></b>	This section provides an in-dept review of the current insurance market in Mongolia, including the green insurance products. It covers the institutional and policy/ regulatory framework, as applicable for introducing and implementing green insurance products in the country.
<b><i>KSTA Recommendations</i></b>	<p>This section provides the KSTA recommendations for potential green insurance products in Mongolia.</p> <p>The recommended products are based on enhancing the exiting green insurance products offering in the country, and also proposes new products for consideration by the regulator, so as to incentive sustainable practices in the country.</p> <p>Each recommended product is backed by an international case study of a similar product already being implemented and risk coverage.</p>

## 2. ROLE OF GREEN INSURANCE

**Green insurance** is a type of insurance that helps to protect the environment and combat climate change. Also known as eco-friendly insurance, it is an economic incentive to encourage behavioral change. As more and more people understand their impact on the environment, they are opting for eco-friendly practices. As a result, insurance companies are creating innovative products and services to encourage sustainable practices and technologies.

### 2.1. Need for Green Insurance

Fundamentally, insurers cover most risks and help people recover from their losses. As climate change worsens, such weather-related risks (e.g. floods, cyclones) are increasing alarmingly and results in financial and economic losses. **Thus, insurers all around the world recognize climate change as a major risk and are actively looking at Green insurance to solve environmental hazards and advance sustainability.**

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*The insurance industry offers a unique opportunity to contribute to Sustainable Development Goals (SDGs) by providing coverage for environmentally friendly projects, promoting sustainable business practices, and encouraging investment in green technologies.*

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Green insurance is more than just a sustainable insurance solution; it contributes to society by accelerating the sustainable transformation of the global economy. Therefore, insurance companies play an important role in promoting sustainability and climate resilience by underwriting decisions and investment choices, and by engaging clients on environmental, social and governance (ESG) practices.

Numerous studies have been conducted on this subject to understand how the insurance sector responds to climate change.

**Table 1: Studies Conducted for Role of Insurance on Environment**

Year	Study Name	Description	Findings
2009	Mills	Mills (2009) conducted one of the earliest studies in this area to examine how the insurance industry responded to climate change. The study employed a direct survey of insurance companies and a review of more than 300 sources.	The study's findings demonstrate that, despite the insurance sector's significant contribution to the fight against climate change, there remain limitations on the risks that insurers can cover

Year	Study Name	Description	Findings
2017	Yang et al.	A study Conducted to examine the adoption of green technology and identify strategies for insurance providers to provide supplementary protection for uncertified green buildings. In doing so, interviews with experts and businesspeople were held while gathering information for the study.	The study results indicate that green commercial building insurance must be established to ensure complete coverage for all green buildings. These findings demonstrate the insurance industry's need to handle climate change challenges more actively.
2021	Collier et al.	It analyzed the impact of climate change and insurance on local economies and ways of life. The study investigated insurance companies' responses to climate change, the challenges they encounter in defending clients against natural disasters and the possible repercussions of delaying climate change action. The study examined the scientific understanding of climate change and economic losses from weather-related natural disasters to investigate how the insurance sector is affected by and reacts to it. The study used different case studies to examine the impact of climate change	The study's findings indicated that insurers are aware of the necessity to financially protect against climate threats because they can lead to higher long-term expenses. It also raised awareness of the challenges insurers face in protecting clients from natural disasters due to inadequate data and climate change becoming a significant worry for the sector.
2021	Nobanee et al	A study Conducted investigating the concept of green and sustainable life insurance. The study gathered numerous relevant studies from the Cambridge online database, and bibliographic clustering analysis was carried out.	According to the study's findings, implementing green insurance coverage can be a helpful way to promote ethical corporate practices and reduce environmental hazards. The results of this study demonstrate how green insurance could encourage financial support for environmentally friendly initiatives in developing countries.
2021	Belozyorov & Xie	A study Conducted investigating the concept of green and sustainable life insurance.	found that the green insurance industry can contribute significantly to sustainable development by reducing industrial transformation risks, improving environmental protection capabilities and improving residents' living standards



Year	Study Name	Description	Findings
<b>2021</b>	Christiansen	A study Conducted investigating the potential of integrating ecosystem-based adaptation and insurance to govern ecosystem rents in a biopolitical context	The study's findings suggest that integrating ecosystem-based adaptation and insurance can be a helpful strategy for biopolitical regulating ecosystem rents.
<b>2022</b>	Pugnetti et al	The result of the study implies that challenges such as lack of infrastructure, lack of awareness and education among individuals and businesses, lack of regulatory frameworks and policies to support, lack of demand, political instability, corruption and security concerns are found challenging for the success of green insurance in developing countries.	In addition to these challenges, the study findings also indicate that the impact of green insurance on investment in sustainable development is less widely researched than climate change and other sustainable development topics.

Source: Public Information

The subsequent sections provide key principles of green insurance and benefits thereof.

## 2.2. Green Insurance Principles

**Green insurance policies** have been developed to encourage and incentivize investment in sustainable projects such as renewable energy, energy efficiency and climate adaptation. These policies provide financial protection to project developers and investors, which reduces investment risk and encourages more investment in sustainable projects. Recently, adopting sustainable practices has started in numerous industries, including forestry and agriculture, and has also been facilitated by green insurance coverage.

Globally, insurers are progressively placing a high priority on sustainability. This increased focus began with global awareness on climate change which underlined the need for more sustainable/green products and behaviors. For insurance, promoting and driving sustainability can help insurers quantify risk and thus mitigate risks better. **The United Nations Environment Programme Finance Initiative (UNEPFI) Principles for Sustainable Insurance (PSI)**<sup>1</sup> is a manual that the UNEPFI released on how the insurance business should manage sustainability issues. In order for insurers to better understand vulnerabilities, risk and mitigation in a more risk-aware environment, this policy guide is intended expressly to help insurers and guide their self-alignment with ESG standards.

The PSI are applicable to all lines of insurance, all regions and all insurance industry participants and address environmental, social and governance risks and opportunities in relation to insurers' spheres of influence, including company strategy, risk management and underwriting, product and service development, claims management, sales and marketing, and investment management, as well as engagement with regulators and other stakeholders.

The vision of the PSI Initiative is of a risk-aware world, where the insurance industry is trusted and plays its full role in enabling a healthy, safe, resilient and sustainable society. As part of the guidance, the key principles set for green insurance providers are listed below.

**Figure 1 : Green Insurance Principles**

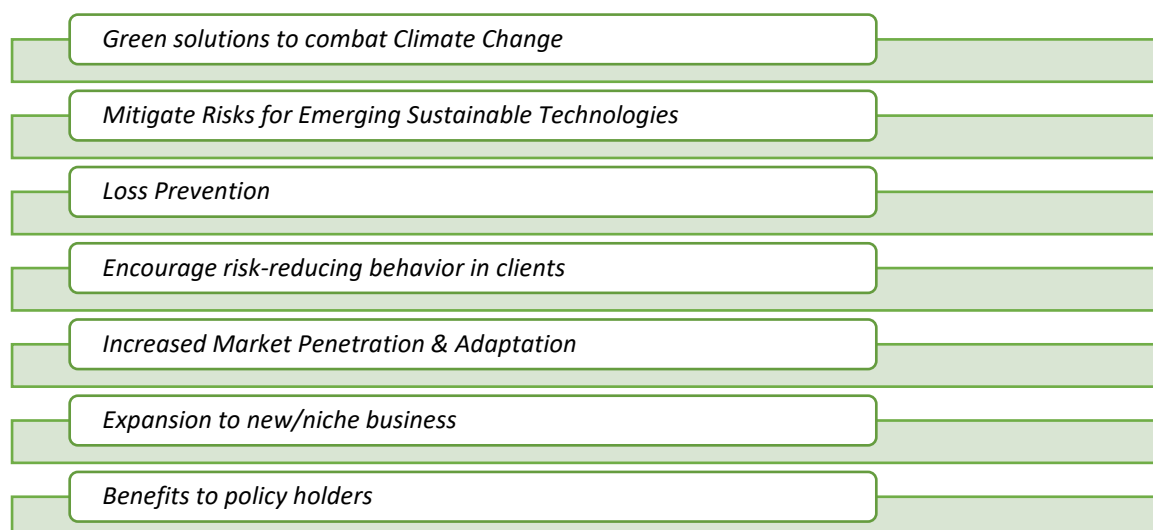


<sup>1</sup> Source: <https://www.unepfi.org/psi/wp-content/uploads/2012/06/PSI-document.pdf>

## 2.3. Benefits of Green Insurance

Against the backdrop of climate change and increasing carbon emissions, various insurance firms in major cities around the world are starting to take a more active role in green investments and product development. The key benefits of Green Insurance can be analyzed broadly as per categories defined below:

**Figure 2 : Benefits of green insurance**



### Green solutions to combat climate change

Insurance companies are fundamental players in financial markets that collect large amounts of savings. With the globalization of financial markets, their role as financial intermediaries has increased significantly. However, climate change itself is highly risky. As people invest in sustainable gadgets like wind turbines, they need to secure these new products. Conversely, insurers have the expertise to deal with such risks. As a result, their policies promote the use of sustainable technologies and products.

### Mitigate Risks for Emerging Sustainable Technologies

Insurers usually cover small-scale to large-scale projects at various levels. As an example, one of the most pressing issues today is energy: production and consumption. While solar energy is one of the most abundant energy sources, the technology to harness it is quite expensive. Despite such risks, insurers foster such technological advancement.

### Loss Prevention

Most certainly, loss prevention is at the heart of the insurance industry. But climate change poses significant risks and losses to industry. For this reason, insurers engage in financing the green projects of customers to increase their resilience. To cite an example, building houses on stilts in flood-prone areas decreases damage loss during a flood event. Insurers may either support sustainable incentives that decrease damage loss in the long run. Or they may advocate for better land use planning and discourage development in risky regions.

### *Encourage risk-reducing behavior in clients*

As far as insurers are concerned, customers who showcase green behaviors also present fewer risks. For example, drivers who drive hybrid/electric cars often do so to decrease their carbon emissions. For insurers, these people represent 'good risks' and they consequently reward them with lower premiums.

### *Increased Market Penetration & Adaptation*

For example, by providing discounts on hybrid/electric vehicles, insurers can increase their penetration on this expanding sector of the automobile insurance market. Global investors who are looking for alternative investment opportunities will be encouraged to consider them as viable investments in line with their ESG strategic goals.

### *Expansion into new/niche businesses*

Given the government incentives, the renewable energy sector is booming. Due to its innovative and technologically intensive nature, insurance can likely play a big part in each of these projects. Insurers who get into this sector earlier may be able to harvest the rewards of these new/niche businesses.

### *Benefits to Policy holders*

There are other benefits that are highlighted below when green products are offered by insurers.

- There will likely be a reduction in damage to the environment as insurers will incentivize policyholders who contribute very minimal carbon and use eco-friendly materials.
- Policyholders' property will be protected from being damaged or destroyed due to future weather related events.
- Individuals and businesses will be enthusiastic about saving on insurance since they will enjoy various discounts for contributing to an eco-friendly environment.

Given aforementioned benefits, there is a strong case for promoting Green Insurance across Asian economies, including Mongolia. Certain steps in terms of institutional and policy framework have already been undertaken in the country, as explained in detail in the next chapter.

## 3. AS-IS MARKET ASSESSMENT

### 3.1. Green Insurance in Mongolia

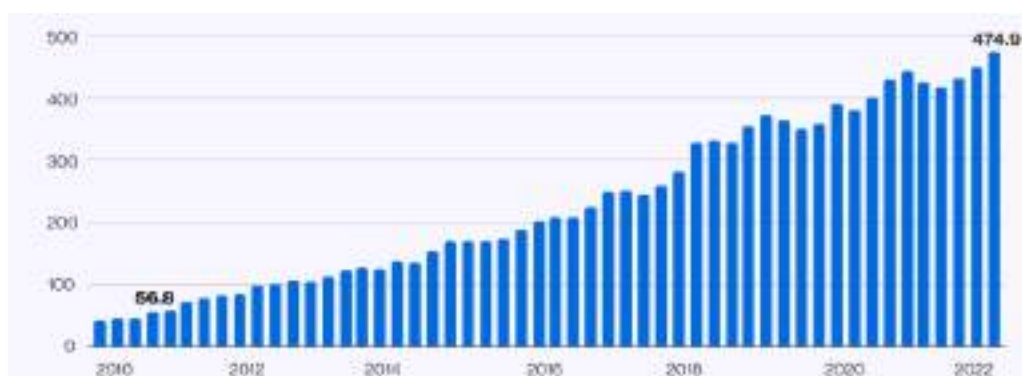
Mongolia's insurance industry is relatively young compared to other economies in Asia, having started in 1997 with the enactment of the Insurance Act. Since then, the sector has evolved and diversified, offering a range of products and services to individuals and businesses. Mongolia's insurance sector has seen a remarkable expansion in the past decade, as premiums have risen more than eightfold to ₮474.9 billion (\$137 billion) in 2022.

The Financial Regulatory Commission (FRC) established in 2006 and a parliamentary authority for regulation and supervision of the nonbank financial markets' is Mongolia's (non-bank) financial markets regulator. It is mandated to supervise and regulate the non-bank financial sector and is responsible for promoting stable and sound financial markets.

#### A spectacular surge

- The industry has benefited from a growing middle class, rising disposable income and increased awareness of the benefits of insurance. The government has also introduced policies to support the sector, such as mandatory health and motor insurance.
- The total premiums collected by insurers rose from ₮56.8 billion in the fourth quarter of 2010 to ₮474.9 billion in the same period of 2022, according to data from the Financial Regulatory Commission. The total revenue from premiums increased 9.6 times to ₮304.8 billion over the same period.

**Figure 3 : Insurance sector growth in Mongolia**



Source : According to data from the Financial Regulatory Commission (FRC)

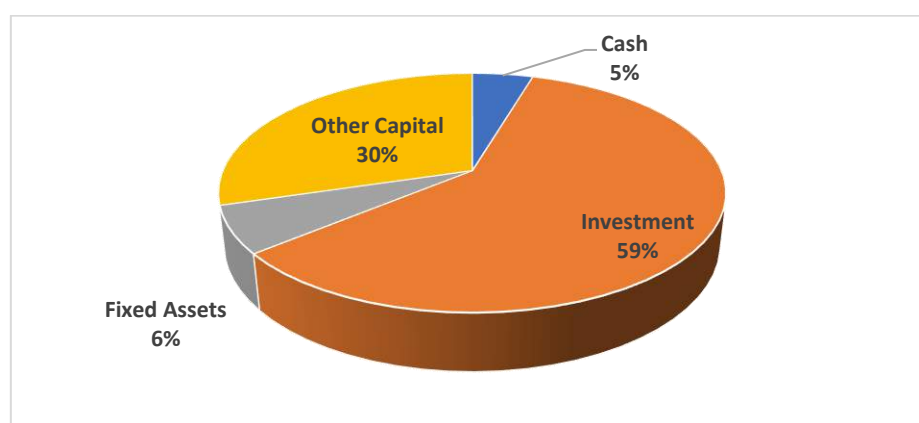
Total based on special licenses and rights granted by the Financial Regulatory Commission 323 companies, brokers, insurance loss assessors, audit companies, actuaries, auditors and 2,376 insurance agents operating in Mongolia. The key statistics are provided in the table below.

**Table 2: Insurance Market Participants in Mongolia**

Regular Insurance company	16	Insurance Representative	2376
Long term Insurance company	2	Auditing company	40
Re-Insurance company	1	Auditors	137
Insurance Brokerage company	63	Actuary <sup>2</sup>	40
Insurance loss assessors	25		

Source: FRC FY 2022

The amount of total assets compared to the previous year is 11.6 % increase and reached 474.9 billion MNT in insurance sector of Mongolia. The total asset portfolio consists of 59% investments, followed by 30% in the form of other assets and 6% in the form of fixed and intangible assets, 5% in the form of cash equivalents. The investment portfolio consists of 69% savings and deposit certificates, 31% %age is securities and the remaining %age is dependent and in jointly controlled and subsidiary companies in the form of investment.

**Figure 4 : Capital Breakup of Insurance**

By the end of 2022, 14 regular insurance companies and 1 long-term insurance company are delivering 116 insurance products and services to citizens by using electronic technologies, out of which 22 are voluntary insurance types and 1 compulsory insurance type.

In total, 673 insurance products and services were provided in 2022. This is an increase of 49 products compared to 2021<sup>3</sup>. Of these 673 products classified by type of insurance, 22.0% are capital insurance, 21.5% of accidental accident and medical insurance, and 21.8% of liability insurance while the remaining 34.7% is made up of other 20 forms of insurance. Most of the insurance companies are re-insured in the foreign country and paid per year around 83.7 billion MNT during last three-year. This is equal to 33.2% of total income from insurance premium.

<sup>2</sup> An actuary uses math and statistics to estimate the financial impact of uncertainty and help clients minimize risk. An actuary can assess and manage the risks of financial investments, insurance policies, and other potentially risky ventures.

<sup>3</sup> Financial Sector Review 2022, FRC

## 3.2. Stakeholder discussions

As part of the research process, the KSTA team held multiple stakeholder discussions with various agencies in Mongolia, as listed in table below:

**Table 3: Stakeholder Discussions - Green Insurance**

#	Meeting date	Organization	Attendees	Designation
1.	7-Mar-23	Tenger Insurance	Baatarbold Jukov	Chief Retail Insurance Officer
2.	16 May-23	XacBank	G.Sarnai	Project Development Officer, Eco-Banking Division
3.	31-May-23	Financial Regulatory Commission of Mongolia	O.Byambasuren	Senior Officer, Policy Coordination Division, Insurance Department
4.	12-June-23 16-June-23	Financial Regulatory Commission of Mongolia	A.Mandaljav	Referent of Insurance department

Based on the stakeholder discussions and information collected, the subsequent sections provide an overview of the institutional and legal framework for green insurance, existing products and key developments in the green insurance market in Mongolia.

### 3.3. Insurance sector Institutional and Legal environment

The table below provides the list of key agencies as part of the institutional and regulatory framework for the insurance sector in Mongolia.

**Table 4: Insurance Sector in Mongolia – Key Agencies**

Agency	Role
<b>Financial Regulatory Commission (FRC)</b>	Responsible for below set of key activities: <ul style="list-style-type: none"> <li>• development of strategies and policies for the development of the insurance market</li> <li>• improvement of laws and regulations</li> <li>• research and analysis of the insurance market</li> <li>• rules and regulations for the operation of insurers and insurance professional participants</li> <li>• establishment of criteria and standards for compliance, mandatory, long-term and reinsurance market</li> <li>• credit development</li> <li>• introduction of accessible insurance products</li> <li>• creation of a unified database of the insurance industry</li> <li>• protection of market participants from potential risks</li> <li>• registration of types and forms of products on the insurance market</li> <li>• issuance of special licenses, permits, and rights related to insurance activities</li> </ul>
<b>Ministry of Finance (MOF)</b>	Oversees the financial sector and capital markets policies and has been supportive of the growth in the insurance industry in the past.
<b>Bank of Mongolia (BOM)</b>	Commercial banks are governed and supervised by the Bank of Mongolia (BOM). Relating to insurance, the BOM controls insurance-related intermediaries, such banks, and automated payment systems, like electronic money transfers.

The FRC exercises power over non-bank financial institutions, insurance companies and intermediaries, securities firms, saving and credit cooperatives, real estate brokers, and dealers of precious metals and stones; ensuring the rights of individual financial markets clients (including securities holders, domestic and foreign investors, and insurance policyholders) against financial malpractices.

All insurance-related activities are governed under the **2004 Law on Insurance**. Definitions of various insurance classes and types, the rights and obligations of the insurer and the insured, and regulations and licensing of Insurance firms, capitalization and solvency, accounting and auditing, the roles and duties of actuaries, reinsurance regulation and licensing, and the FRC's authority to gather information and levy penalties. These rules' specifics are covered in regulations and advisory notes that the FRC independently released.



### 3.4. Green Insurance in Mongolia

In order to create a legal environment for green insurance products, relevant amendments and changes were made to the 1st, 2nd, 4th and 11th appendices of the Insurance Package Rules by Resolution No. 129 of March 23, 2022. According to this amendment, green insurance products are harmonized with Mongolia's Green Taxonomy, regulations are included to increase the insurer's interest in investing in green bonds while clarifying the terms and conditions of insurance contracts.<sup>4</sup>

#### Key Characteristics – Green Insurance in Mongolia

Green Insurance Products have the following features and characteristics:

- The terms and conditions of the green insurance must include specific discounts and incentives compared to the conditions of regular insurance of the same type.
- The Insurance contract must stipulate that insurance compensation will be provided within 15 (fifteen) days without causing any difficulties to the insured, provided that the insurance event has been proven by relevant documents.
- Insurers who have marketed green insurance products and have met the requirements of the FRC and other related authorities can be issued a "Green Certificate".
- Also, Capital Requirements for Insurance Reserve Fund and Compulsory Insurance Fund and Conditions for Use of its Proceeds for Investment "have been amended allowing insurers to use up to 20% of its reserve funds to acquire "green bonds" which fall under the National Green Taxonomy.

Since March 2022, the FRC has modified the prudential ratios of Mongolian insurers enabling them to use up to 20% of its reserve for acquisition of "green" bonds. The activities financed by such bond proceeds should be "green" per the Green Taxonomy of Mongolia.

To qualify as "green", the project that the bond issuer aims to finance must

- (i) fall within the Green Taxonomy of Mongolia or
- (ii) be verified as "green" or "environmentally friendly" under internationally recognized standards or guidelines.

Furthermore, according to the discussions held by the Consultant to various stakeholders, including the FRC, while there may exist potential interest in "green" bonds, at the regular meeting of the Financial Regulation Committee on June 13, 2023, after approving the "Green Bond Program" of KHAN Bank, it was decided to grant KHAN Bank permission to issue the first green bond in the Mongolian capital market and to register it in the securities register. The amount of the green bond is USD 30 million.

Some of the Mongolian insurance firms have recently been proactive in introducing innovative products, including around "green".

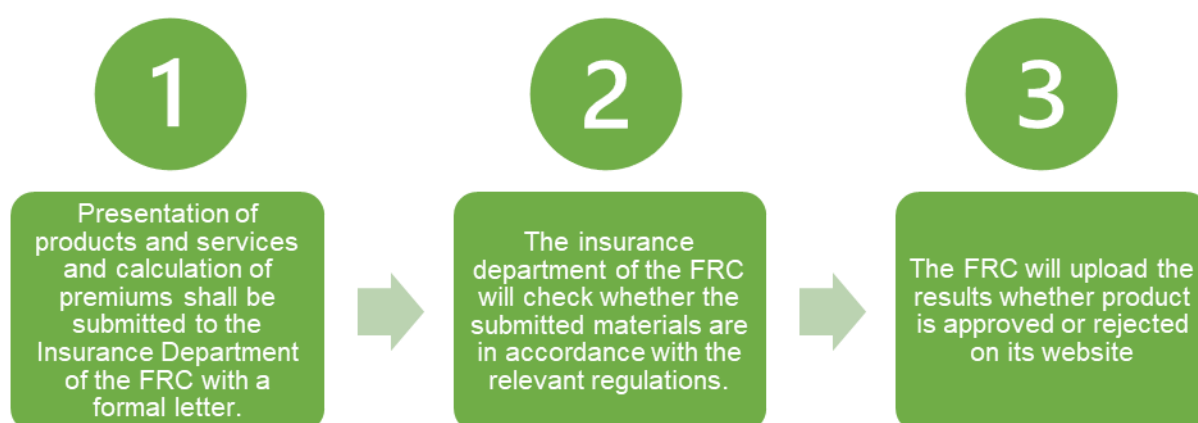
#### Launching Insurance Products to the Market

Within the framework of the relevant laws and regulations, the insurance company has the right to launch and introduce its products and services to the market. When introducing a product to the market for the first time, the following steps will be followed as depicted in figure below:

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<sup>4</sup> [https://license.frc.mn/storage/uploads/process/file\\_1648138992189840\\_2\\_1453693488283501.pdf](https://license.frc.mn/storage/uploads/process/file_1648138992189840_2_1453693488283501.pdf)

**Figure 5: Key Steps – Green Insurance Product Launch in Mongolia**



Source: Stakeholder consultations with FRC

The table below provides the insurance product notification form, to be provided in step 1 of the process outlined above.

**Table 5: Insurance product notification form – Prescribed format by FRC**

1	Notification date	year		month		day	
2	Name by the notifier	Name					
3	Insurance Product name	"Liability insurance for energy saving contracts"					
4	The relevant type of insurance for the insurance product	"Liability Insurance"					
5	Right to sell insurance products of all official decision	Decision name			Date		#
		Executive Director Order					
6	Whether to sell online	Yes			No		
7	An actuary who calculates insurance premiums:	Surname			Name		
<b>Select information type.</b>							
8	New sale of insurance products						
	Renewal of insurance products						
<b>General information on insurance products</b>							
9	Insurance Item	%age of energy that is suitable for saving					
	Insurance main risk	%age of unsaved energy					
	Additional insurance risk						
	%age of unsaved energy						

Source: Stakeholder consultations with FRC

## 3.5. Existing Green Insurance Products

Currently, there are 2 types of green insurance products in Mongolia. This includes **green vehicle insurance** and **energy efficiency insurance**. Both are voluntary insurances and have only recently been introduced, so statistics are scarce. Currently, Tenger Insurance LLC offers energy saving insurance and eco car insurance, and MIG Insurance offers eco car insurance to its customers.

### 3.5.1. Green Vehicle Insurance

Eco vehicle insurance products are offered by 2 insurance companies including Tenger and MIG. As amended by the latest insurance package rules:

- 1) Eco car insurance premium should be cheaper than other normal car premiums.
- 2) Compensation should be resolved quickly.

The two companies introduced eco car insurance products to the market in mid-2022, and the statistics after that are shown in Table 2. It is very low or 0.005 % compared to the total car insurance contracts made in the period from May'22 to the end of the year. In terms of insurance premium, it is also a very small number of 0.22 %.

The tables below provide complete details of the existing product offerings for Green Vehicle Insurance in Mongolia.

**Table 6: Green Vehicle Insurance - Insurance product notification form by Tenger Insurance**

1	Notification date	Year	2022	Month	7	Day	25
2	Name by the notifier	Tenger Insurance LLC					
3	Insurance Product name	Electric Vehicle Insurance					
4	The relevant type of insurance for the insurance product	"Vehicle Insurance					
5	Right to sell insurance products of all official decision	Decision name			Date		#
		Executive Director Order			2022.7.25		A/22-111
6	Whether to sell online	✓ Yes			No		
7	An actuary who calculates insurance premiums:	Surname			Name		
<b>Select information type..</b>							
8	New sale of insurance products Renewal of insurance products						
<b>General information on insurance products</b>							
9	Insurance Item	Class B electric vehicles registered with the national center of transport owned or owned by the insured tools					
	Insurance Main Risk	1. Nature risk 2. Fire Risk 3. Risks during road transport 4. Risks during designated parking 5. Risks of theft 6. Damage to tires					

		7. Driver's sudden accident protection
Additional insurance risk	The insured is protected against the following additional risks without an increase in premiums. It includes: -Battery risk -Charger risk	
Insurance premium %age and amount	0.91%-2.18%	

Source: Stakeholder consultations

**Table 7: Green Vehicle Insurance – Insurance product notification form by MIG**

1	Notification date	Year	2022	Month	05	Day - 31
2	Name by the notifier	MIG insurance LLC				
3	Insurance Product name	"ECO" Electric vehicle insurance				
4	The relevant type of insurance for the insurance product	Vehicle Insurance				
5	Right to sell insurance products of all official decision	Decision name	Date			#
		CEO order	2022.05.30			A/22-98
6	Whether to sell online	Yes <span style="float: right;">No</span>				
7	An actuary who calculates insurance premiums::	Surname			Name	
Select information type.						
8	<input type="checkbox"/> New sale of insurance products <input type="checkbox"/> Renewal of insurance products					
General information on insurance products						
9	Insurance Item	Electric vehicles and accessories are covered by insurance.				
	Insurance Main Risk	Risk name	Insurance Package			
		Main risk	Light	Smart	Strong	
		Road traffic accidents or risks during road traffic	+	+	+	
		Nature Risk	+	+	+	
		Fire Risk	+	+	+	
		Total Risk of theft	+	+	+	
		Tire Risk	+	+	+	

		Risk of objects falling from above while driving	+	+	+	
		Risks during driver change	50 % compensation for drivers other than 2 drivers	80 % compensation for drivers other than 2 drivers	+	
		Risk of unexpected driver accidents	Up to MNT 500,000	Up to MNT 1,000,000	Up to MNT 2,500,000	
		Risk of partial theft	Once , Up to MNT 500,000	Up to MNT 3,000,000	Up to MNT 5,000,000	
		Risks when not on the road	+0.5% /Up to MNT 3,000,000 /	Up to MNT 10,000,000 тег	+	
		Glass Risk	-	+	+	
		Risk of Intentional or Inadvertent Actions of Third Parties	-	+	+	
	Additional insurance risk	- Inflation risk				
	Insurance premium rate and amount	Main Risk	Compensation	Light	Smart	Strong
			Lowest rate	0.85%	1.70%	2.50%
			Top rate	1.50%	2.50%	3.50%
	Additional risk	0.05% - 0.30%				

Source: Stakeholder consultations

### 3.5.2. Energy Saving Insurance

Tenger Daatgal LLC, together with Khas Bank, an accredited national implementer of the United Nations Green Climate Fund, introduced the Energy Saving Insurance Mechanism in Mongolia for the first time on October 27, 2022. The implementing organization of the product is Tenger Insurance, and the partner organizations are XacBank and URECA

The following energy-saving technologies are of great importance in the manufacturing, service, agricultural and mining industries. These include lighting, motors, air compressors, boilers, refrigerators, air conditioners, heating, solar panels, etc. The energy efficiency insurance model of energy saving project aims to reduce risk and build investor confidence. These include tools to tackle barriers for energy investment in energy saving insurance model.

**Standard contract** – is a contract between the energy saving technology supplier organization or the Supplier and the organization that purchased the technology or the Client to regulate all relations of the project, including the method of calculating the energy saving.



**Financing** - The financial support required by the client will be obtained through financial institutions interested in building energy efficiency markets and project portfolios. The client is responsible for applying for a bank loan to finance the project. In return, the Supplier pays the insurance premium.



**Verification of Savings** - Verification is performed by an independent organization with experience in energy project certification, which will not only confirm that the Supplier has installed the technology according to instructions, but also cross-check the %age of unsaved energy if the two parties dispute the %age.



**Energy Savings Insurance** - This is an insurance product to increase trust and reduce risk for both parties, with the condition that if the supplier organization does not save the energy it promised to save under the contract, the supplier will compensate the customer for the amount of unsaved energy.

The table below provide complete details of the existing product offering for Energy Savings Insurance in Mongolia.

**Table 8: Energy Savings Insurance – Insurance product notification form by Tenger Insurance**

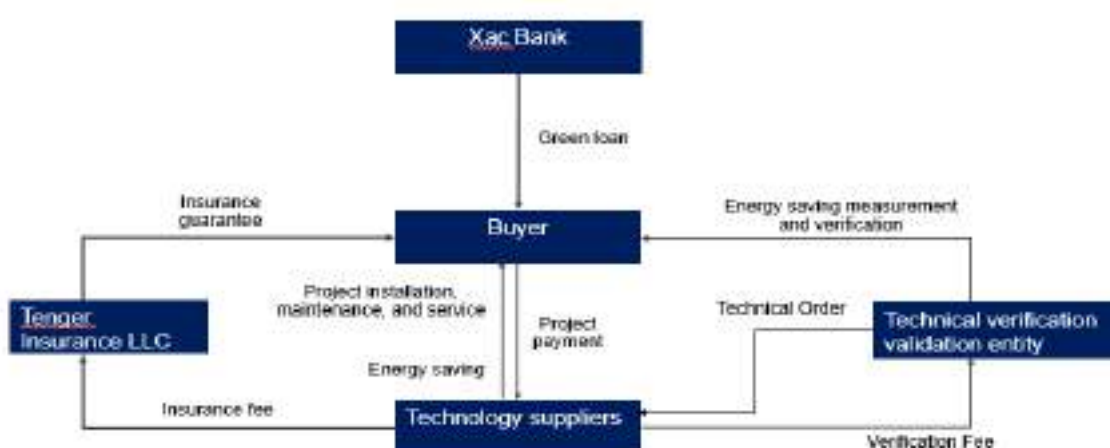
1	Notification date	year		month		day	
2	Name by the notifier	Tenger Insurance LLC					
3	Insurance Product name	"Liability insurance for energy saving contracts"					
4	The relevant type of insurance for the insurance product	"Liability Insurance"					
5	Right to sell insurance products of all official decision	Decision name		Date		#	
		Executive Director Order					

6	Whether to sell online	Yes	No
7	An actuary who calculates insurance premiums:	Surname	Name
<b>Select information type.</b>			
8	New sale of insurance products Renewal of insurance products		
<b>General information on insurance products</b>			
9	Insurance Item	Percentage of energy that is suitable for saving	
	Insurance main risk	Percentage of unsaved energy	
	Additional insurance risk		
	Percentage of unsaved energy	1.0% - 4.0%	

Source: Stakeholder consultations

There are 3 parties involved in energy efficiency insurance contract - the insurance organization, the buyer, and the technology supplier will sign a tripartite agreement. Under the contract, when the technology buyer buys the technology from the supplier company, the insurance company ensures that the technology will show energy efficiency. If the energy is not saved to the amount specified in the contract, the insurance company will provide compensation. An external verification entity for energy efficiency will work on the energy saving measurement. Xac Bank will grant a discounted loan if energy efficiency insurance is provided. This product is introduced to the market first time by Tenger Insurance LLC in Mongolia.

**Figure 6 : Energy Savings Insurance – Implementation Mechanism**



Source: Stakeholder consultations

### 3.6. Key Challenges and Needs to be addressed

Green insurance has been recently introduced in Mongolia and is a very new concept. Furthermore, Mongolia's insurance sector remains underdeveloped compared with the global average and its regional peers. The insurance premium revenue accounted for only 0.63% of Mongolia's gross domestic product in 2022, far below the world average of 7.16%.

Based on stakeholder discussions by KSTA team with FRC and insurance companies, the following challenges have been identified for the development of green insurance products in Mongolia:

- It is necessary to initiate and develop incentives by the government for green insurance, including introduction of new green insurance products so that relevant sectors can be supported by government.
- Due to lack of green insurance awareness and other factors, there is poor demand in the market. There is a need to build capacity of the government agencies through learnings from international case-studies on use of green insurance, which can be deployed in Mongolia.
- Cost-effective distribution is a key challenge given the large distances, low population density, and manual premium collection processes.
- There is a need to develop and empower associations and partnerships among market participants. For example, providing discounted loans to organizations covered by green insurance, recommending green products to other customers, etc.

The development of Green insurance in Mongolia needs to be considered within the context of overall insurance market and regulatory environment development. It is difficult to develop the green insurance market without a viable life insurance segment or a strong nonlife retail insurance focus. While certain regulatory achievements have already been made, there is a need to build capacity in this aspect so that more products can be introduced to penetrate the market.



## 4. KSTA RECOMMENDATIONS – GREEN INSURANCE PRODUCTS

At a global level, insurance products tend to concentrate on energy efficiency, including clean energy, hybrid vehicles, and green building certification, although their nature varies widely. Green insurance products are already developed in some of Asian countries, ranging from agricultural insurance, fishery insurance, earthquake insurance, soil moisture index insurance, etc.

Green insurance products are those that cover the design, production and use of these sustainable products, or the liability associated with their production and use. Such products can be broadly divided into 2 categories:

1. **Personal Lines** - The green products which affect individuals, or the insured is personally affected are called personal lines. The products under this category can be broadly divided into Green Property Insurance and Green Vehicle Insurance.
2. **Commercial Lines** - Commercial lines insurance includes property and casualty insurance products for businesses. Commercial lines Insurance protects businesses from potential losses they can't afford to cover and allows companies to operate when it might otherwise be too risky.

Based on a detailed assessment of green insurance market in Mongolia and needs identification through stakeholder consultations, this chapter describes KSTA recommendations regarding green insurance products which can be considered for implementation in Mongolia. Each recommendation includes a specific case-study example from other countries (category, risks covered, premium considerations) as per international best-practices.

We have also included existing green insurance products (green vehicle insurance and energy savings insurance) in this chapter to highlight the relevant international case-studies.

The table below provides a summary of recommended green insurance products for potential introduction in Mongolia, as elaborated in subsequent sections.

**Table 9: Recommendations – Green Insurance Products in Mongolia**

#	Recommendation	Brief Description
1.	<b><i>Green Property Insurance (Personal)</i></b>	These are products that facilitate the use of renewable materials or energies in homes or buildings and alternative building practices.
2.	<b><i>Green Vehicle Insurance (Personal)</i></b>	These are insurance incentives that are offered on motor vehicles that help to enhance an eco-friendly environment by reducing the amount of greenhouse gases being emitted into the environment.
3.	<b><i>Green Commercial Fleet Insurance (Commercial)</i></b>	Commercial Fleet Insurance is a type of vehicle insurance policy that covers multiple commercial vehicles. It is specifically designed for commercial fleet operators.
4.	<b><i>Green Building Insurance (Commercial)</i></b>	As part of this coverage, insurers offer help to customers to build sustainably by evaluating designs and specifications for new

#	Recommendation	Brief Description
		structures and suggesting ways to ensure high-quality construction and exceptional loss prevention.
5.	<b><i>Renewable Energy Insurance (Commercial)</i></b>	These products provide coverage for companies in the renewable industry (ex. solar, wind, hydraulic...) to help them in managing risk, defending against lawsuits and protecting assets. These insurance products and services are designed to cover all stages of a project from design to distribution
6.	<b><i>Energy Savings Insurance (Commercial)</i></b>	Energy Savings Insurance aims to address barriers for investment in emerging technologies to reduce GHG emissions by paying out if the projected value of energy savings is not met.
7.	<b><i>Green Agriculture Insurance (Commercial)</i></b>	These are specific insurance products to support the growth of agriculture sector by encouraging farmers and land-owners to use devices that can be used to reduce the amount of produce lost and improve the overall quality of produce.

For each of the proposed recommendation as per table above, the subsequent sections provide a detailed description and case study examples to demonstrate how such green insurance products can support growth of particular sectors and overall, towards meeting the NDC targets of Mongolia

## 4.1. Green Property Insurance (Personal)

Green Property Insurance products facilitate the use of renewable materials or energies in homes or buildings and alternative building practices. This is different from conventional home insurance and can be sub-classified as depicted below.

### Green Property Insurance

- Green Property Rebuilding
- Property Renewable Energy Reimbursement
- Property Loss Mitigation Device Discount
- Premium discounts for LEED certified homes

#### Green Property Rebuilding

In general, after a covered loss, this type of coverage pays for the use of:

- Environmentally friendly or more energy-efficient materials when making repairs.
- More energy efficient equipment or appliances.

For those policyholders who are already green, discounts are sometimes offered on their insurance premiums. For example, some companies will pay homeowners extra if they recycle debris rather than send destroyed materials straight to a landfill and replace old kilowatt-hungry appliances with Energy Star machines, which meet an energy-savings rating created by the central energy regulator.

#### Property Renewable Energy Reimbursement

This type of coverage protects a homeowner who uses an alternative-energy system in the case of a power outage. It may provide indemnification for:

- Loss of income generated from selling surplus energy to the local energy company.
- Extra costs to purchase replacement electricity.
- Utility or governmental fees for inspections, re-connections or permits when the homeowner's alternative energy system is brought back online.

#### Property Loss Mitigation Device Discount

Premium credits are offered to homeowners who install mitigation devices or choose storm resistant construction techniques in catastrophe-prone areas. An example is window shutters to protect homes during severe storms, picking garden plantings with deep roots in hurricane-prone areas to massive efforts like infrastructure construction and community-wide land use planning. In concept, the idea that stronger homes should pay lower rates is non-controversial; nearly all homeowners insurers take construction type and characteristics into account for all properties they cover. Certain construction materials and techniques qualify for lower rates than others.

#### Premium discounts for LEED certified homes.

LEED is short for Leadership in Energy and Environmental Design Green Building Rating System. This system, developed by the U.S. Green Building Council, is a recognized environmental standard across the globe in the building world and has high efficiency and sustainability standards.

The figure below summarizes the various types of Green Property Insurance and risks covered for personal home-owners.

**Figure 7 : Green Property Insurance Products & risk covered.**

Cover of a green insurance object	"Green" policy features	Support of Transition after claim	Promotion of environment behavior/characteristics
<ul style="list-style-type: none"> <li>•Discount for certified buildings</li> <li>•Discount for property loss mitigation actions</li> <li>•Insurance for solar installations</li> <li>•Cover for certified buildings (e.g., LEED, Energy Star)</li> </ul>	<ul style="list-style-type: none"> <li>•Technical / maintenance / warranty support for green installations</li> <li>•Renewable energy reimbursement (in case of power outage)</li> <li>•Consumption-based services</li> <li>•Compensation of emissions</li> </ul>	<ul style="list-style-type: none"> <li>•Ecological repair/replacement</li> <li>•Eco-friendly replacement material endorsements</li> <li>•Green building upgrade after loss / the course of normal renovations</li> </ul>	<ul style="list-style-type: none"> <li>•Green building advice</li> <li>•Smart home solutions (with climate impact)</li> <li>•Behavioural discounts</li> <li>•Circular economy services</li> </ul>

#### 4.1.1. International Case Study - Green Home Insurance

The table below provides an international case-study for Green Home Insurance, with details of risks covered, premium considerations and exclusions.

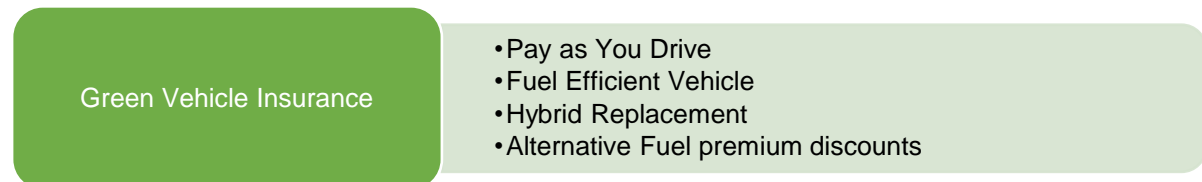
Particulars	Description
<b>Name of the insurance company</b>	Travelers Insurance
<b>Country</b>	America
<b>Product Name</b>	Green home
<b>Type of Insurance</b>	Homeowners Insurance
<b>Suitable For</b>	Homes equipped with Smart or connected home technology that alerts when a fire, water or burglar event is occurring
<b>Types of Risks Covered</b>	Dwelling coverage <ul style="list-style-type: none"> <li>• Fire</li> <li>• Windstorms</li> <li>• Hail</li> <li>• Lightning</li> <li>• Vandalism</li> <li>• Theft</li> <li>• Weight of ice, snow, or sleet</li> <li>• Freezing of plumbing, heating, air conditioning, or other household systems</li> <li>• Damage or loss of furniture</li> </ul>

<b>Particulars</b>	<b>Description</b>
	<ul style="list-style-type: none"> <li>• Damage or loss of clothes</li> <li>• Damage or loss of Sporting goods</li> <li>• Loss of use coverage</li> <li>• Medical bills that result from a visitor's injury at home</li> <li>• Legal expenses resulting from lawsuits.</li> <li>• Bodily injury or property damage that results from negligent acts or omissions.</li> <li>• Costs to repair with green materials after loss.</li> <li>• Cost of replace rebuild with green materials after loss.</li> <li>• Cost of rebuild with green materials after loss.</li> </ul>
<b>Premium</b>	<p>The Premium of Property insurance depends on:</p> <ul style="list-style-type: none"> <li>• Type of construction</li> <li>• Usage of Property (Primary/secondary)</li> <li>• Current Home insurance Policy</li> </ul> <p>Discounts available if following green home devices are installed:</p> <ul style="list-style-type: none"> <li>• Automatic water shut-off systems</li> <li>• Smoke detectors and fire alarms</li> <li>• Interior sprinkler systems</li> <li>• Home security systems</li> <li>• Smart or connected home technology that alerts you when a fire, water or burglar event is occurring</li> </ul>
<b>Exclusion</b>	<ul style="list-style-type: none"> <li>• Earthquake</li> <li>• Flood</li> <li>• Liability from car accident.</li> <li>• Bodily injury or property damage intentionally</li> <li>• Injuries or damages sustained by you or other covered residents in your home.</li> <li>• Bodily injury or property damage business conducted or professional activities by policyholder</li> <li>• Paying your mortgage, insurance, childcare expenses.</li> </ul>

## 4.2. Green Vehicle Insurance (Personal)

These are insurance incentives that are offered on motor vehicles that help to enhance an eco-friendly environment by reducing the amount of greenhouse gases being emitted into the environment. Eco-friendly car insurance can help vehicle owners money and complement other actions to protect the environment.

It can be classified into 4 different types as depicted below.



### *Pay As You Drive/Low Mileage Discount*

Pay-as-you-drive (PAYD) automobile insurance products inherently give incentives to drive less which leads to less pollution that may be contributing to global warming. These programs provide a customer with personalized automobile insurance rates (and hence savings) based on how well and how much they drive. The underlying principle of the PAYD is the lesser people drive, the less are accident risks and the lower pollution. So, a sensor is installed in the vehicle to track the miles driven. As drivers travel less, they receive discounts from their insurers.

### *Fuel Efficient/Low Emission Vehicle Discount*

Vehicles that use traditional fossil fuels like diesel and gasoline heavily contribute to global warming and pollution. Many insurers provide discounts for hybrid or electric passenger vehicles, which are eco-friendly. Such policies can cover hybrid and electric vehicles or those that are energy efficient.

### *Endorsements that allow hybrid replacement*

It is optional coverage whereby, after a total car loss, the insured can replace his or her traditional automobile with a comparable hybrid vehicle. Studies show that over the entire lifecycle of a vehicle, plug-in hybrid, and battery EV engines produce greenhouse gas emissions that are anywhere from 36-82% less than traditional gasoline engines. Example, with one endorsement, if there is a total loss on a work vehicle or covered piece of equipment, the policyholder will get a 20% increase in value for equipment or a 10% increase in value for vehicles if they replace with electric or hybrid options.

### *Alternative fuel premium discounts*

It applies if the car uses an alternative energy source such as biodiesel, electricity, natural gas, hydrogen, or ethanol. E.g. certain insurance companies offer premium discounts to the owners who drive hybrids and other alternative fuel vehicles and may save 5% on all major coverages. Vehicles eligible for an insurance discount are dedicated fuel vehicles designed to use an alternative fuel or an electric and gasoline hybrid vehicle. Qualified vehicles include hybrid, electric, natural gas, methane, and propane.

The figure below summarizes the various types of Green Property Insurance and risks covered for personal vehicle-owners.

**Figure 8 : Green Vehicle insurance products and risk covered**

Cover of a green insurance object	"Green" policy features	Support of Transition after claim	Promotion of environment behavior/characteristics
<ul style="list-style-type: none"> <li>•Electric vehicle cover</li> <li>•Hydrogen / alternative fuels cover</li> <li>•E-Scooter cover</li> </ul>	<ul style="list-style-type: none"> <li>•Pay as you drive/ Pay how you drive</li> <li>•Compensation of mobility emissions</li> <li>•Green consumption services</li> </ul>	<ul style="list-style-type: none"> <li>•Virtual repair / optimized physical repair network</li> <li>•Transition incentive to "greener" Mobility choice (e.g., replacement upgrade for hybrid/ EV cars)</li> </ul>	<ul style="list-style-type: none"> <li>•Mobility ecosystems and services (e.g., joint mobility platform services)</li> <li>•Sharing mobility covers (e.g., B2B2C partnership with additional individual covers)</li> </ul>

#### 4.2.1. International Case Study - Green Vehicle Insurance

The table below provides an international case-study for Green Vehicle Insurance, with details of risks covered, premium considerations and exclusions.

Particulars	Description
<b>Name of the insurance company</b>	Zurich Insurance Group
<b>Country</b>	Switzerland
<b>Product Name</b>	My Way – low-cost car insurance
<b>Type of Insurance</b>	Pay As You Drive/Low Mileage Discount
<b>Suitable for</b>	Ideal for infrequent drivers. It provides the protection offered by traditional car insurance but, aside from a basic fee, only pay for the kilometres the policyholder drives. Thus, encourages Drive less, pay less – be kind to the environment and save money.
<b>Types of Risks Covered</b>	<ul style="list-style-type: none"> <li>• Theft</li> <li>• Fire and damage caused by natural hazards.</li> <li>• Cyber attack</li> <li>• Parking damage or Parking damage PLUS</li> <li>• Glass PLUS (glass breakage)</li> <li>• Items transported in the vehicle.</li> <li>• Tire and wheel rim protection</li> <li>• Interior protection</li> <li>• Property damage and bodily injury to third party</li> <li>• Unjustified claims by third parties</li> </ul>

<b>Particulars</b>	<b>Description</b>
	<ul style="list-style-type: none"> <li>• Collision accidental damage</li> <li>• Car-hacking</li> <li>• Slashed tires</li> <li>• Slashed convertible roof.</li> <li>• Painting or spraying of paintwork.</li> <li>• Roadside assistance</li> <li>• HV battery damage</li> <li>• Damage to charging stations.</li> <li>• Damage charging accessories</li> <li>• Overvoltage</li> <li>• Short circuit</li> <li>• Operating errors</li> <li>• Malfunctions</li> <li>• Charging card loss or damage</li> <li>• Unauthorized use of the charging card or recharge app by third parties</li> </ul>
<b>Premium</b>	<p>In addition to a basic fee, monthly premium is based solely on the kilometres vehicle have driven. This way parked car is also insured around the clock.</p> <p>Example:  Policyholder drives a VW Polo 1.4 (year of construction 2011, value when new CHF 23'000) and has taken out fully comprehensive insurance. Premium per month  <math>\text{CHF } 20 + (250 \text{ Km} \times 6 \text{ Rp}) = \text{CHF } 35</math>  Monthly basic premium + (Kms Driven * Price/Km)</p> <p>Discounts:  The insurance company reward environmentally friendly vehicles and grant a discount on the premium of up to 20 % for electric, plug-in and full-hybrid vehicles.</p>
<b>Exclusions</b>	<ul style="list-style-type: none"> <li>• Racing activity</li> <li>• Property damage</li> <li>• Depreciation in value and loss of use</li> <li>• Driving under influence of alcohol</li> <li>• Special event of theft (fuel)</li> <li>• Damages incurred during war</li> <li>• Damage caused by a garage or manufacturer</li> <li>• Non-compliance with safety regulations</li> <li>• Loss of capacity or performance</li> <li>• Material, manufacturing, or construction errors</li> <li>• Damage to HV batteries by external chemical influences</li> <li>• Unauthorized use of the charging card or recharge app by Policyholder</li> <li>• Hacking of charging card and used for other purchases.</li> </ul>



## 4.3. Green Commercial Fleet Insurance (Commercial)

Commercial Fleet Insurance is a type of vehicle insurance policy that covers multiple commercial vehicles. It is specifically designed for commercial fleet operators. Fleet insurance eliminates the need and the resources required to manage the insurance policies of individual vehicles. Be it tens, hundreds, or more, keeping track of the individual vehicle's insurance status and the coverage of the policy is substantial work that needs dedicated resources. If not managed properly, it can leave the vehicle, the driver, and the other road users exposed to risk.

### Upgrade to Green Commercial Fleets

This type of product offers an option to upgrade the company's fleet to hybrid vehicles for new vehicle replacement as part of an endorsement to the policy. Businesses that own a fleet of hybrid or electric cars might also be able to realize savings for discounts on auto insurance.

### 4.3.1. International Case Study - Green Fleet Insurance

The table below provides an international case-study for Green Fleet Insurance, with details of risks covered, premium considerations and exclusions.

<b>Particulars</b>	<b>Description</b>
<b>Name of the insurance company</b>	AXA Commercial
<b>Country</b>	UK
<b>Product Name</b>	Mini fleet Choice
<b>Type of Insurance</b>	Electric Vehicle Fleet Insurance
<b>Suitable For</b>	<p>Designed for UK-based sole traders, partnerships or companies with 3-15 vehicles – or up to 20 for mid-term adjustments and renewal – under one policy.</p> <ul style="list-style-type: none"><li>• Goods carrying vehicles up to 44,000kg gross vehicle weight.</li><li>• Business cars for social, domestic and pleasure and business use</li><li>• The ability to extend to include agricultural vehicles, special type vehicles and trailers.</li><li>• A courtesy vehicle whilst the vehicle is being repaired by an AXA approved repairer (for Private Cars and Goods Carrying Vehicles up to 3.5 tonnes, subject to availability).</li></ul> <p>Additional cover for Electronic Vehicle</p> <ul style="list-style-type: none"><li>• Definition of accessories to include charging cables, adapters and connectors.</li><li>• Cover for loss of or damage to EV chargers (wall mounted or posts). This extends to EV chargers at employee's home if supplied with an EV by the insured.</li></ul> <p>Third Party section extended to clarify cover for liability arising from use of</p>

<b>Particulars</b>	<b>Description</b>
	vehicle when being charged
<b>Types of Risks Covered</b>	<b>Standard cover</b> <ul style="list-style-type: none"> <li>• Legal liability to Others</li> <li>• Personal injury</li> <li>• Damage to property following an accident involving a vehicle covered by the policy-up to £20,000,000 in respect of private cars £2,000,000 in respect of any vehicle carrying Hazardous Goods £10,000,000 for vehicles other than private cars £5,000,000 costs and expenses for any one claim or any one event</li> <li>• Manslaughter defence costs- Up to £5,000,000 for any one event or during any one period of insurance</li> <li>• Emergency treatment cover</li> <li>• Trailers and mechanically disabled vehicles</li> <li>• Indemnity to principles</li> <li>• Unauthorised movement</li> <li>• Contingent liability/Cross liabilities</li> <li>• Service or repair</li> <li>• European cover</li> <li>• Vehicle breakdown referral service</li> <li>• Uninsured loss recovery- Up to £100,000 for all claims arising out of one event</li> </ul>
<b>Premium</b>	Premium is calculated based on: <ul style="list-style-type: none"> <li>• Vehicle Type and Use</li> <li>• Number of vehicles in fleet</li> <li>• Purpose of business</li> <li>• Driver</li> <li>• Location</li> <li>• Credit score</li> </ul>
<b>Exclusions</b>	<ul style="list-style-type: none"> <li>• any depreciation in the market value of vehicle</li> <li>• for loss of or damage to property owned by or in the care of the person claiming or being carried in or on vehicle.</li> <li>• for loss of or damage to the vehicle.</li> <li>• for death, injury or damage caused or arising beyond the limits of any carriageway or thoroughfare in connection with the loading or unloading of vehicle by anyone other than the driver or attendant of your vehicle.</li> <li>• for death, injury or damage caused by or connected with property on which, have carried out any process of manufacture, construction, alteration, repair or treatment.</li> </ul>

## 4.4. Green Building Insurance (Commercial)

Several Asian countries in the process of development are vulnerable to grid failures in the form of electricity brown-outs and black-outs or water shortages. So, it is recommended that commercial building under development or planned in near future should incorporate green features such as daylighting and natural ventilation, solar power generation and rainwater harvesting to make buildings less reliant on external grids.

As part of this coverage, insurers offer help to customers to build sustainably by evaluating designs and specifications for new structures and suggesting ways to ensure high-quality construction and exceptional loss prevention.

### Green Building Insurance

- Insurance for green building
- Green Building coverage against adverse publicity

#### Insurance for Green Building

Similar to the Personal Lines green property policy, these products also cover green materials and construction following a covered loss. These are green commercial property insurance products. Businesses that use alternative materials and energies in their buildings and surroundings should have access to insurance that incentivizes them and encourage them to keep enhancing an eco-friendly environment. As with green home insurance, green commercial property insurance policies and endorsements offer cost-savings. For example:

Replace standard building systems and materials for green ones following a loss for items like energy efficient electrical features and interior lighting, nontoxic paints and carpeting and plumbing that conserves water. After a total loss, coverage may pay for below:

- Green certified rebuilding
- Engineering inspections of heating, ventilation, air conditioning, building recertification fees
- Vegetation replacement
- Debris recycling
- Loss of income and other incurred costs

#### Green Building Coverage Against Adverse Publicity

This reputation coverage provides protection when a green building experiences adverse publicity. Funds are made available to employ crisis management specialists to manage adverse publicity; guide and counsel key company personnel; and provide other services to assist in restoring a company's reputation. Such coverage provides reimbursement for reasonable fees, expenses, and costs to respond to and/or defend a civil lawsuit for failure to meet or comply with green building standards. Such an endorsement may also cover the cost of a reputation crisis consultant to manage adverse press to mitigate reputational damages.

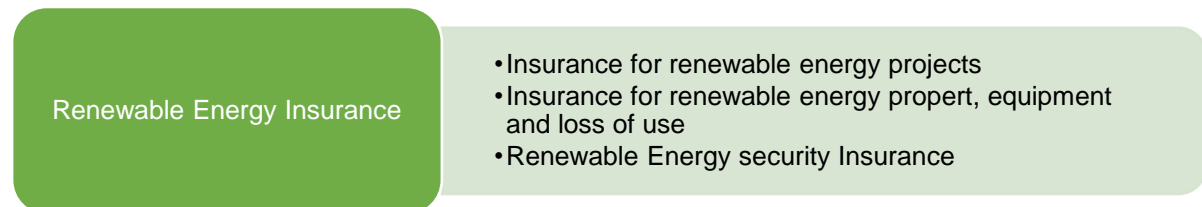
#### 4.4.1. International Case Study – Green Building (Commercial) Insurance

The table below provides an international case-study for Green Building Insurance, with details of risks covered, premium considerations and exclusions.

Particulars	Description
<b>Name of the insurance company</b>	HSB Engineering Insurance Limited
<b>Country</b>	England
<b>Product Name</b>	Energy efficiency
<b>Type of Insurance</b>	Energy Efficiency Insurance
<b>Suitable for</b>	As property owners and occupiers face significant energy cost and pressure to ensure their buildings' energy efficiency, there is an opportunity to cut both emissions and costs by installing energy saving initiatives; such as LED lighting, thermal window films and more-efficient boilers in commercial properties.
<b>Types of Risks Covered</b>	<ul style="list-style-type: none"> <li>• Material damage</li> <li>• Breakdown equipment</li> <li>• Replacement of equipment is on a new- for-old basis.</li> <li>• Asset performance</li> <li>• Shortfall in energy savings</li> <li>• Business interruption</li> </ul>
<b>Premium</b>	<p>The premium is dependent on</p> <ul style="list-style-type: none"> <li>• Type of insurance cover</li> <li>• Value of energy saving device</li> <li>• Usage</li> <li>• Location</li> <li>• Green value replacement</li> <li>• Extended period for reconstruction using green material</li> <li>• Credit score.</li> </ul>
<b>Exclusion</b>	<ul style="list-style-type: none"> <li>• Damage caused by lightning or over voltage unless your insured property is fitted with zone protection.</li> <li>• The cost of repairing a defect.</li> <li>• The cost of electronic data reinstatement following a cyber event.</li> <li>• Damage caused by intentional overloading, testing, experiment, or deliberate misuse.</li> <li>• Losses due to Legal claims, suits or actions which affect the efficiency initiative(s).</li> </ul>

## 4.5. Renewable Energy Insurance (Commercial)

These products provide coverage for companies in the renewable energy industry to help them in managing risk, defending against lawsuits and protecting assets. These insurance products and services are designed to cover all stages of a project from design to distribution, as depicted in figure below.



### Insurance for Renewable Energy Projects

Renewable energy insurance is a policy that covers financial losses connected with the generation, transmission, and storage of renewable energy sources such as solar, wind, geothermal, and hydroelectric energy. This insurance protects the policyholder from financial losses caused by abrupt and unforeseen occurrences affecting renewable energy generation, transmission, and storage. For example, insurance may cover physical damage caused by storms, fire, flood, earthquake, lightning, and other natural disasters. Coverage may also include insurance for disruptions in energy supplies caused by vandalism, terrorism, or sabotage.

### Insurance for Renewable Energy Property, Equipment and Loss of Use

In order to keep up with the rapid technological change of the renewable energy field, this type of policy provides replacement cost coverage for equipment with more efficient equivalents. Equipment currently in operation, under construction or newly purchased can be added to the policy. Green roofs are examples of what would be covered.

### Renewable Energy Security Insurance

Renewable energy security insurance protects policyholders from the financial risk of investing in renewable energy sources, allowing them to pursue green energy projects with greater confidence. Renewable energy is becoming increasingly vital in our society, and insurance is required to protect such investments.

However, renewable energy investments are often considerable and fraught with danger. Therefore, renewable energy assurance can provide peace of mind to those who wish to pursue this energy source.

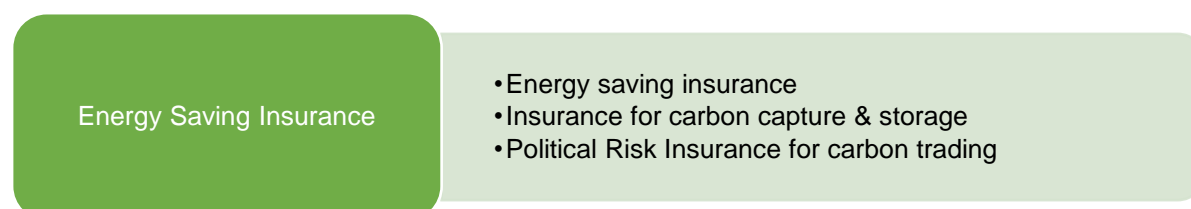
#### 4.5.1. International Case Study - Renewable Energy Insurance

The table below provides an international case-study for Renewable Energy Insurance, with details of risks covered, premium considerations and exclusions.

<b>Particulars</b>	<b>Description</b>
<b>Name of the insurance company</b>	Naturesave Insurance
<b>Country</b>	United Kingdom
<b>Product Name</b>	Renewable energy
<b>Type of Insurance</b>	Solar Insurance
<b>Suitable for</b>	Renewable Energy insurance products to manufacturers, contractors or designers & operators of: <ul style="list-style-type: none"> <li>▪ Wind turbines – including anemometers, met masts, LIDARs &amp; other wind measuring systems</li> <li>▪ Combined heat and power (CHP) – biomass and wood chip boiler systems</li> <li>▪ Solar Photovoltaic &amp; active solar thermal systems</li> <li>▪ Wave &amp; tidal marine renewable systems</li> <li>▪ Hydro-electric facilities</li> <li>▪ Hydrogen fuel cell technologies</li> <li>▪ Waste to energy systems</li> <li>▪ Biogas – Landfill &amp; anaerobic digestion</li> </ul>
<b>Types of Risks Covered</b>	<ul style="list-style-type: none"> <li>• Material damage</li> <li>• Testing and commissioning and advance loss of profits</li> <li>• Machinery breakdown</li> <li>• Employers, Public &amp; Products liability</li> <li>• Directors &amp; Officers and Trustee Liability</li> <li>• Weather hedge (Lack of wind/sun)</li> <li>• Loss of revenue &amp; business interruption</li> <li>• Delay in startup (DSU).</li> <li>• Transit risks</li> </ul>
<b>Premium</b>	The premium is dependent on <ul style="list-style-type: none"> <li>• Type of insurance cover</li> <li>• Value of renewable energy project/asset</li> <li>• Usage</li> <li>• Location</li> <li>• Green value replacement</li> </ul>
<b>Exclusion</b>	<ul style="list-style-type: none"> <li>• Site liability</li> <li>• Regulatory Risks</li> <li>• Technological Risks</li> <li>• Operational Risks</li> <li>• Property damage and machinery breakdown</li> <li>• Third-party exposures</li> <li>• Fiduciary liability</li> </ul>

## 4.6. Energy Savings Insurance (Commercial)

Energy efficiency upgrades result in financial and economical savings while reducing their emissions of harmful greenhouse gases. However, the market for such upgrades is typically limited to those with very short payback periods, such as lighting. This is particularly true for some developing countries and sectors. Energy Savings Insurance aims to address these investment barriers by paying out if the projected value of energy savings is not met and can be sub-classified as depicted below.



### Energy Saving Insurance

Energy Savings Insurance insures the financial performance of energy efficiency savings projects. ESI now has projects in seven countries that will target thousands of businesses. Energy savings insurance policies can provide a backstop for energy savings guarantees given by energy service companies. An insurer pays any shortfall in energy savings below a pre-agreed baseline over the term of the policy, typically in the 5-10 year range.

### Insurance for Carbon Capture & Storage/ Emission Reduction Projects

As efforts to decarbonize various economies continue, demand for carbon capture and storage (CCS) projects — which are able to remove carbon from the atmosphere — is growing. The global market for CCS is projected to reach \$4.9 billion by 2026.

While CCS projects bring forth multiple opportunities for organizations, they are also fraught with new risks, ranging from the inadvertent release of captured carbon dioxide (CO<sub>2</sub>) to projecting and funding for proper decommissioning. Unless these challenges are addressed in a timely and effective manner through mitigation tactics and insurance solutions, investors and developers risk forfeiting tax credits that make these projects financially feasible. Aside from securing the most effective insurance solutions, developers can protect the financial stability of a CCS project by implementing risk mitigation techniques during a project's construction, operation, and decommissioning phases.

Insurance products and services are offered to organizations involved in the capture and storage of large volumes of carbon dioxide and other greenhouse gases.

### Political Risk Insurance for Carbon-Trading

Interested parties such as project sponsors, investors, and lenders are given financial protection from risks arising from governmental interference, embargo, license cancellation, war and political violence which could interrupt the production, certification and delivery of carbon credits.

#### 4.6.1. International Case Study - Carbon Capture and storage insurance

The table below provides an international case-study for Carbon Capture and storage insurance, with details of risks covered, premium considerations and exclusions.

<b>Particulars</b>	<b>Description</b>
<b>Name of the insurance company</b>	Marsh LLC
<b>Country</b>	New York City
<b>Product Name</b>	Carbon capture and storage
<b>Type of Insurance</b>	Carbon Capture and Storage Insurance
<b>Types of Risks Covered</b>	<ul style="list-style-type: none"><li>• Potential damage or delays during the construction phase</li><li>• Decommissioning assurance</li><li>• Environmental risks</li><li>• Potential loss of tax credits</li></ul>
<b>Premium</b>	The premium is dependent on <ul style="list-style-type: none"><li>• Type of insurance cover</li><li>• Risk Profile</li><li>• project location's regulatory and financing requirements.</li><li>• Analysis of potential exposures, including subcontractor financial stability, potential supply chain issues, and more.</li><li>• Development of a risk register and risk management plan, including procedures for addressing claims or losses</li></ul>
<b>Exclusions</b>	<ul style="list-style-type: none"><li>• Site selection</li><li>• Injection operation</li><li>• Closing well</li><li>• Stewardship</li><li>• Certainty of investment</li><li>• Local/regional hazards</li><li>• Communication with society</li><li>• Asphyxiation</li><li>• Pipelines can leak or rupture</li><li>• Potential leakage</li><li>• Contamination of drinking water</li><li>• Stimulation of seismic activity.</li></ul>



## 4.7. Green Agriculture Insurance (Commercial)

These are specific insurance products to support the growth of agriculture sector and is very relevant for Mongolia given contribution of agriculture to the overall economy of the country. It can be sub-classified as depicted below.

### Green Agriculture Insurance

- Perishable food reduction products
- Global Weather insurance

#### Perishable Food Reduction Products

These products encourage the use of devices that can be used to reduce the amount of produce lost and improve the overall quality of produce during the distribution process from the grower to the retailer. Technology devices continuously monitor the temperature and condition of produce as it travels, estimating the remaining shelf life. This information is used to route products to maximize quality, salability and reduce unnecessary perishable waste.

#### Global Weather Insurance

This product is used to bridge the gaps left by traditional insurance coverage within general property damage policies. Insureds are covered against unpredictable weather conditions and climate change. This may be beneficial for event promoters who want to hedge against a defined weather variable such as rain/wind exceeding a defined threshold during the hours of coverage.

### 4.7.1. International Case Study – Green Crop Insurance

The table below provides an international case-study for Green Crop Insurance, with details of risks covered, premium considerations and exclusions.

Particulars	Description
<b>Name of the insurance company</b>	Tata AIG General Insurance Company Limited
<b>Country</b>	India
<b>Product Name</b>	Pradhan Mantri Fasal Bima Yojana (PMFBY)
<b>Type of Insurance</b>	Crop Insurance.
<b>Types of Risks Covered</b>	It has been designed and marketed to raise the level of crop insurance adoption in India <ul style="list-style-type: none"><li>• Yield losses (standing crops)</li><li>• Prevented sowing (on notified area basis)</li></ul>

<b>Particulars</b>	<b>Description</b>
	<ul style="list-style-type: none"> <li>• Post-harvest losses (individual farm basis)</li> <li>• Localised calamities (individual farm basis)</li> </ul> <p>PMFBY is a comprehensive risk insurance scheme covering most non-preventable risks - natural fire, lightening, flood, droughts, landslide, pests, diseases. Improvements over previous insurance schemes include (a) No cap on premium subsidy, (b) Risk cover for prevented sowing, mid-season, post-harvest periods (c) Sum insured upto cost of production/TY (d) Higher indemnity levels (e) Insurance units can be defined at a village level (f) Increased focus on use of technology. Farmer's premium rate is capped to 2% of sum insured (SI) (Kharif food and oilseed crops), 1.5% SI (Rabi food, oilseed crops), and 5% SI (commercial crops, horticulture).</p>
<b>Premium</b>	<ul style="list-style-type: none"> <li>• Kharif Crops: 2% of Sum Insured</li> <li>• Rabi Crops: 1.5% of Sum Insured</li> <li>• Kharif and Rabi Crops: 5% of Sum Insured</li> </ul>
<b>Exclusions</b>	<ul style="list-style-type: none"> <li>• Losses arising out of war and nuclear risks.</li> <li>• Malicious damage</li> <li>• Other preventable risks.</li> </ul>

## 5. CONCLUDING REMARKS

As part of the Knowledge and Support Technical Assistance (KSTA) by The Asian Development Bank, this report aims to contribute towards enhancement of the Green Finance deployment in Mongolia and support implementation of the Mongolia Sustainable Finance Roadmap in the country. This TA aims to support the Government of Mongolia in advancing the green finance policy and regulatory framework and in undertaking capacity development to enhance capability to develop green finance projects and products.

As per the objectives of the Report, a set of seven (7) green finance (insurance) products have been provided for consideration by Financial Regulatory Commission, Ministry of Finance, Bank of Mongolia and other relevant stakeholders to support deployment of green technologies and improve the green insurance ecosystem in Mongolia.

These recommendations are based on international best practices, and the Report provides specific case studies of each recommended green insurance product to provide a complete understanding of various risks covered, premium considerations and policy exclusions for such products. Proactive steps would also be needed to build technical and commercial capability so as to enhance understanding of such products in Mongolia.