I. Preface

Climate change, resulting from greenhouse gas emissions originating from economic activities, has led to a continuous increase in the average global temperature, affecting both humans and the environment. The impact on younger generations may be more immediate and enduring. Taiwan is not exempt from this phenomenon; the frequency of days with high temperatures, extreme rainfalls, typhoons, and precipitation volatility in Taiwan is anticipated to experience significant growth in the coming years. This is set to have a severe impact on various sectors, encompassing water resources, homeland security, coastal environments, marine resources, food safety, public health, and biodiversity.

In response to the global challenge of the climate emergency, international carbon regulations are gradually becoming stricter. With increasing pressure on supply chains to reduce carbon emissions, achieving a 2050 net-zero transformation has become a shared goal for the world and Taiwan. As our generation pursues current prosperity, we must also consider safeguarding the future generations' right to survival. Confronted with this complex and long-term transformation project that spans generations, sectors, and nations, the government aims to establish a solid governance foundation focused on two key aspects: scientific R&D and climate laws. Additionally, the government will promote four major transformation strategies encompassing energy, industry, lifestyle, and society, supported by 12 pivotal strategic action plans. These initiatives will involve promoting international cooperation, advancing research and development in net-zero technology, expanding public discourse and social communication, and regularly assessing the net-zero pathway to meet future development needs.

Indeed, climate change presents a formidable challenge to the entire planet. Despite the daunting task of transforming the energy and industrial structure, Taiwan remains committed to reducing greenhouse gas emissions in line with the Paris Agreement and the United Nations' Sustainable Development Goals. According to Article 9, Paragraph 1 of the *Greenhouse Gas Reduction and Management Act* promulgated in 2015, the central competent authority, namely the Ministry of Environment of the Executive Yuan, is entrusted with the responsibility of formulating the *National Climate Change Action Guidelines* ("Action Guidelines") and the *Greenhouse Gas Reduction Action Plan* ("Action Plan"). These documents serve as the overarching guidance for the nationwide effort to reduce greenhouse gas emissions.

Through concerted cooperation between central and local governments, the public, enterprises, and NGOs, Taiwan is promoting a low-carbon and sustainable lifestyle. This effort includes establishing global partnerships while considering intergenerational equality and interdisciplinary governance to enhance global resilience. The ultimate goal is to transform climate risks into opportunities for green transformation, thereby ensuring the sustainable development of the nation.

II. Prospects and Objectives

1. Prospects

Developing adaptation strategies and a net-zero emissions pathway is essential to building a green and low-carbon homeland capable of adapting to climate risks and ensuring the nation's sustainable development.

2. Objectives

- (1) Strengthen overall adaptability to climate changes, minimize vulnerability, and bolster resilience against the impacts of climate change.
- (2) The long-term national GHG emission reduction goal shall achieve net-zero emissions of GHG by 2050.