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Understanding Green Economic Development in Cambodia

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Abstract: This research aims to understand the Cambodian green economy transition and analyze its strengths, weaknesses, opportunities, and threats (SWOT). The research showed that Cambodia has been significantly transitioning its green economy since 2009 as evidenced by the National Green Growth Roadmap. Cambodia also established the National Council for Green Growth in 2012 and upgraded it to the National Council for Sustainable Development in 2015 in alignment with the 2030 Agenda for Sustainable Development of the United Nations. The members of the Council are from all the government's ministries and relevant inter-ministerial councils/committees, which are significant for policymaking. All governors of the capital and provincial administrations are also its members, which are significant for supporting and implementing the works at subnational levels. Under the structure of the Council's Secretariat, the Department of Green Economy is playing an important role in promoting green economic development in Cambodia by looking at the national policies and strategic plans, undertaking projects, and mobilizing resources. Through coordination between this Department and UNIDO, Cambodia in 2022 became a Member of the United Nations Partnership for Action on Green Economy. The findings showed that Cambodia is transitioning its green economy at the right time, especially the new government's Pentagonal Strategy strongly supported this green economy transition with a clear and strong political commitment. The national inter-ministerial council for sustainable development is also very significant for cross sectoral policymaking and implementing levels, inclusively for promoting green economic development.

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Keywords: Cambodia green economy; national green growth roadmap; green economy transition; Pentagonal Strategy; green growth policy; carbon neutrality; sustainable development.

1. Introduction

With its high commitment to promote clean, green, and sustainable development, Cambodia produced a National Green Growth Roadmap in 2009 which has been getting more attention internationally [1]. This roadmap enables a win-win situation between the economy, environment, and socio-culture toward achieving stable high economic growth, environmental sustainability, and human well-being [2]. The roadmap lays out seven key priority accesses: (i) access to clean water and sanitation, including waste management; (ii) access to sustainable energy, including renewable energy and energy efficiency; (iii) access to knowledge and information, including green education and skills; (iv) access to means for sustainable transports; (v) access to sustainable finance and investments; (vi) access to food security and non-chemical products; and (vii) access to sustainable land use, including protected areas and forest management [1].

Through an MoU on Green Growth Cooperation with Global Green Growth Institute (GGGI) since 2011, Cambodia has been significantly contributing to producing immediate tangible impacts towards achieving high economic growth while reducing environmental stress and improving quality of life [3]. More importantly, as a founding member of an international and treaty-based inter-governmental GGGI organization in 2012, Cambodia established a National Council for Green Growth (NCGG) to coordinate a green and low-carbon development and to ensure the balance of economic, environmental, and sociocultural objectives within the kingdom [4]. In 2013, Cambodia importantly approved the National Policy and the National Strategic Plan on Green Growth 2013-2030 with the aim to promote sustainable long-term economic and social development in Cambodia [5].

In alignment with the 2030 Agenda for Sustainable Development of the United Nations, Cambodia established a National Council for Sustainable Development (NCSD) in 2015 [6] by consolidating the National Council for Green Growth and its General Secretariat, National Climate Change Committee and its Secretariat, National Biodiversity Steering Committee and its Secretariat, and National Biosafety Committee and its Secretariat [7]. This Council is a policy-making body with a mission to promote sustainable development and to ensure economic, environmental, and sociocultural balances within the country. The Council has its Secretariat, called General Secretariat of NCSD at the Ministry of Environment for supporting daily operation. The General Secretariat has five Departments overseeing

green economy and green growth, science and technology, biodiversity and biosafety, climate change, and its administrative works [8].

As an arm of the General Secretariat of NCSD, the Department of Green Economy (DGE) has a mission to promote green economic development in Cambodia by looking at national policies and strategic plans, undertaking projects, and mobilizing resources [9]. So far, the Department of Green Economy has been coordinating inter-ministerial projects and collaborating with many development partners to implement various projects on sustainable cities, green building, sustainable energy, and sustainable consumption and production (SCP), and eco-label and green certification. In 2021, the General Secretariat of NCSD was renamed to the General Directorate of Policy and Strategy, which is structured under the Ministry of Environment. However, the new General Directorate still has five Departments as before and serves as the Secretariate of NCSD [10].

As summarized in a background above, green economic development in Cambodia has been promoted since 2009. However, it is still little known among some key stakeholders, especially financial and banking institutions. Furthermore, there is a limitation in terms of understanding of what is green economy and green growth, and what is green and sustainable development, especially why it is essential to all relevant stakeholders across the country. Moreover, many relevant potential development partners, including financial and banking institutions, are still not clear on the roles and responsibilities of the responsible governmental institutions for green economic development in Cambodia while their governance and mechanisms have been reformed several times.

Hence, this research aims to understand Cambodian green economy transition by demonstrating background and progress of green economic development and to analyze strengths, weaknesses, opportunities, and threats (SWOT) of promoting green economic development of the country. Consequently, the significance of this research is to disseminate information of the national green economy and improve understanding of green economic development in Cambodia, especially on institutional arrangements and reforms, national governance structures, and roles and responsibilities, as well as relevant regulations and policies, such as the code, laws, royal decrees, sub-degrees, national policies, strategic plans, and roadmaps for supporting green economic development in Cambodia, including key priority sectors and completed, on-going, and forthcoming projects.

2. Materials and Methods

In order to realize its objectives, this research incorporated qualitative methods to examine and analyze green economic development in Cambodia through existing policies and regulations, national governance structures, roles and responsibilities, international cooperations, and completed, on-going, and forthcoming projects. More importantly, this research conducted strengths, weaknesses, opportunities, and threats (SWOT) analysis of green economic development in Cambodia based on relevant existing relevant regulations and policies, such as the code, laws, royal decrees, sub-decrees, new government's pentagonal strategy, national policies, strategy and action plans, national roadmaps, national project reports, as well as global, regional, and national cooperations on green growth and green economic development.

This research was based on both primary and secondary data in which primary data were data/information that have been gathered from meetings, workshops, and working with the Department of Green Economy, NCSD Secretariat, and Ministry of Environment and through direct participation, involvement, and works with their staff [11]. Some discussions have been based on the author's knowledge and work experience over 12 years with the national green economy institutions: first, the Division of Green Economy and Investment of the NCGG's General Secretariat (2013-2015) and then the Department of Green Economy (DGE) of the NCSD's General Secretariat (2015-Present). These data were fully and/or partly published or available online as follows: (i) Study on the Mechanism of Green Economic Development in Cambodia with the Build Bright University [12], (ii) Cambodia Green Urban Development Program (GUDP) Phase I with the Department of Green Economy (DGE) and GGGI [13,14], (iii) Cambodia Urban Sustainability Assessment (CUSA) Project with the Hanyang University [15–18] and with the Sungkyunkwan University [19], (iv) Development of Cambodia INFF Finance Strategy based on CSDGs with the Frankfurt School - UNEP Collaborating Centre for Climate and Sustainable Energy Finance and UNCDF [20], and (v) the United Nations Partnership for Action on Green Economy (PAGE) in Cambodia with the coordinating governmental institution, Department of Green Economy (DGE) of the Ministry of Environment's General Directorate of Policy and Strategy, and the UN PAGE Agencies (UNITAR, UNIDO, UNDP, UNEP, and ILO) in which UNITAR acts as the coordinating UN agency [21].

In addition, the secondary data were also used to support in document review that are available in hard and soft copies and on relevant agencies' official websites. As we know, document review is reviewing existing and relevant reports, as well as documents that are available while the reviewing methods were found to be useful to summarize existing documents or reports. Accompanying research based on the existing knowledge and information were also identified as building block of all academic research and study activities regardless of disciplines [22–25]. Consequently, this research extensively collected and reviewed documents from the Department of Green Economy (DGE) of the NCSD's General Secretariat, Ministry of Environment, National Assembly's website, and development partners, including UN Agencies, GGGI, and OECD.

3. Background of Green Economy Transition in Cambodia

3.1. Definitions

Green Economy is the economy that is resulting in improved human well-being and reduced social inequity, at the same time, reduced environmental dangers and ecological scarcities-this is a view of the United Nations Environment Programme (UNEP) as at a visionary level. For the operational level, UNEP has seen it as the one that generate income and employment growth driven by investments to be reduced pollution and carbon emissions, environmental enhanced resource and energy-efficient use, and prevented the loss of biological diversity and ecosystem services [26]. If we look at the national level, Cambodia defines green economy as an economic development with efficient use of natural resources, improving environmental sustainability, promoting green technology and green jobs, as well as economic reforms by taking further consideration on green encouragement, especially green tax and green financing, such as green credit and green micro-finance-this is based on national green growth policy and strategic plan [5,27].

Green Growth means fostering economic development and growth while ensuring that natural assets continue to providing environmental resources and services in which our well-being relies on—this is identified by the OECD [28]. Likewise, Cambodia is viewing green growth based on its national green growth policy and strategic plan as a green economic development that will reduce environmental risks by using less natural resources but getting high yields, increasing energy efficiency to reduce carbon emissions, and improving people's livelihood and clean development to achieve social inclusiveness, environmental sustainability, and stable high economic growth [5,27].

Sustainable Development has reached the most consensus for the following definition: The development that meets the needs of the present without compromising the ability of future generations to meet their own needs—this is a widely known definition of the term 'sustainable development' claimed by the World Commission on Environment and Development since 1987 [29]. For its context, Cambodia stated that, as shown in the national green growth policy and strategic plan, the sustainable development is an economic development without harmful to the environment by using natural resources effectively, increasing energy efficiency, maintaining low waste generation and clean development, and enhancing the quality of life toward achieving the balance of economic development, environmental protection, and social welfare and inclusiveness [5,27].

We understand that the definitions of green economy and green growth defined in Cambodia's national policy on green growth [5] and national strategic plan on green growth 2013-2030 [27] that demonstrated above clearly showed that green economy and green growth principles were strategically determined by the Royal Government as a means to achieve sustainable development within the Kingdom of Cambodia.

3.2. Green Economy under Green Growth Secretariat of MoE (Before Oct 2012)

As mentioned in introduction, Cambodia has restructured and upgraded its green economy institution several times. In the first time, it was known as the Green Growth Secretariat under the Ministry of Environment, served as the Secretariat for Inter-Ministerial Green Growth Working Group (IMGGWG), which was established in August 2009 [1]. The IMGGWG was chaired by a Secretary of State for the Environment and had members from 15 relevant ministries, such as the Ministry of Interior, Ministry of Economy and Finance, Ministry of Agriculture, Forestry, and Fisheries, Ministry of Industry, Mines, and Energy, Ministry of Land Management, Urban Planning, and Construction, Ministry of Planning, Ministry of Public Works and Transport, Ministry of Education, Youth, and Sports, Ministry of Health, Ministry of Rural Development, Ministry of Women's Affairs, Ministry of Tourism, Ministry of Labour and Vocational Training, Ministry of Commerce, Cambodia Chamber of Commerce, Phnom Penh Municipal Hall, and Phnom Penh Capital Department of Environment, including a National Project Coordinator for 2nd National Communication on Climate Change [12].

The above inter-ministerial body developed a National Green Growth Roadmap as an important tool contributed to the national policy and strategy implementation of sustainable development in Cambodia, combined the general objective of pre-existing development strategies with green growth creation and maintenance, and identified as an economic progress with environmental sustainability that accelerate the socially inclusive and low-carbon development. Importantly, it is aimed to unify the environment and development objectives by a means of policy implementation tailor-made to address all needs of job creation and increasing environmental resilience towards maintaining long-term economy growth, environmental sustainability, and human well-being. Consequently, it laid out seven key priority accesses: (i) access to clean water and sanitation, including waste management; (ii) access to sustainable energy, including renewable energy and energy efficiency; (iii) access to knowledge and information, including green education and skills; (iv) access to means for sustainable transports; (v) access to sustainable finance and investments; (vi) access to food security and non-chemical products; and (vii) access to sustainable land use, including protected areas and forest management [1].

After the Global Green Growth Institute (GGGI) was launched on 16 June 2010 as a an evidence-based policy innovation and learning platform employed to illuminate practical opportunities for industry and country-led progress on economic development and environmental sustainability imperatives at the Second East Asia Climate Forum in Seoul, South Korea [3], Mr. Han Seung Soo, Chairman of GGGI came to work with Cambodia and met Cambodia Prime Minister Samdech Hun Sen in 2011. During the meeting, Samdech Hun Sen stated that "*Cambodia is developing and despite the fact that the development is progressing with Cambodia's own greenness, it had to be cautious as the greenness would reduce and be replaced by dryness*" [30] while the Chairman of GGGI expressed that the Republic of Korea is greatly interested in increasing green resources and GGGI is happy to share green growth experiences to Cambodia. Furthermore, the Cambodian government represented by its senior minister and minister of environment, Dr. Mok Mareth, signed an MoU on Green Growth Cooperation with the Chairman of GGGI in March 2011 to design the Green Growth Plan of GGGI in Cambodia to create fast tangible impacts towards achieving Cambodia's sustainable economy growth while improving the quality of life and reducing environmental risks. This MoU aimed to (i) formulate a master plan for green growth tailor-made to Cambodia's specific characteristics, (ii) build the plan and working schedule for green growth in accordance with the strategic national development plan (iii) converge sectoral green growth policies and issues, such as rural agriculture, forestry, and energy, (iv) coordinate the compatibility between environmental protection and industrial development, and (v) identify and prioritize adaptation activities to green growth [30].

3.3. Green Economy under the General Secretariat of NCGG (Oct 2012–May 2015)

3.3.1. Institutional Structures

In June 2012, representatives from 16 countries, including Cambodia, signed the GGGI's Establishment Agreement at the UN Conference on Sustainable Development (Rio+20) to establish by converting the GGGI to be an international treaty-based, inter-governmental organization [11]. As a founding member country of this inter-governmental organization, Cambodia established a National Council for Green Growth (NCGG) on 10 October 2012 to improve green economic development, public health, environmental quality, people's livelihood, and national cultural preservation based on the four key pillars of economy, environment, society, and culture in Cambodia [4].

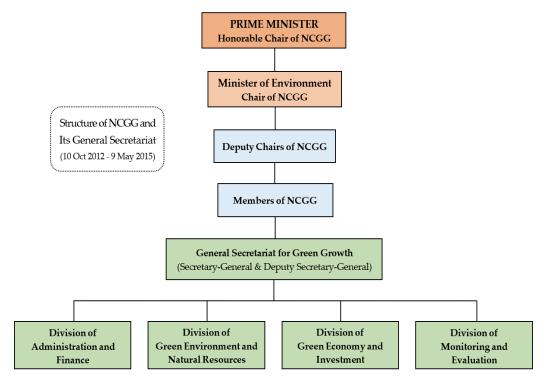


Figure 1. Organizational structure of National Council for Green Growth (NCGG) and its General Secretariat. Source: Drawn by the author based on Royal Decree [4] and Sub-decree [31] in 2012.

The Council had Prime Minister as its honorable chair and Miniter of Environment as its chair as shown in Figure 1. A total of 26 ministries were members of the Council, with two ministries served as its deputy chairs, and other members were the government's relevant national and sub-national organizations, such as the Supreme National Economic Council (SNEC), Council for the Development of Cambodia (CDC), National Committee for Disasters Management (NCDM), Council for Agricultural and Rural Development (CARD), and Cambodia National Mekong Committee (CNMC), as well as all governors of the capital and provincial administrations.

We see that the institutional structure was upgraded from a green growth secretariat that was under the Ministry of Environment to an inter-ministerial green growth council. Members of inter-ministerial working group of 15 ministries were structured to members of inter-ministerial council of 26 ministries, 5 inter-ministerial councils/committees (SNEC, CDC, NCDM, CARD, and CNMC), and all governors of the boards of governors of the capital and provincial administrations. More importantly, Miniter of Environment served as its chair while the Prime Minister was its honorable chair. Furthermore, Minister of Agriculture, Forestry, and Fisheries and Minister of Planning were its deputy chairs, respectively [4]. This shows a high commitment of the government to achieve green economy, green growth, and sustainable development within the kingdom.

According to the establishment royal-decree of the National Council for Green Growth (NCGG) dated on 10 October 2012 [4], this Council shall have a General Secretariat for its daily operation, which shall be housed at the Ministry of Environment. Its General Secretariat was led by a Secretary General and supported by some Deputy Secretary-General (at least one). The Secretary General of NCGG was also a member of the NCGG. The organizing and functioning of the General Secretariat shall be defined by the government's sub-decree. According to the Sub-decree on the Organization and Functioning of the General Secretariat of the NCGG (named in English: General Secretariat for Green Growth), the General Secretariat had four divisions: (i) admin and finance division, (ii) green environment and natural resource division, (iii) green economy and investment division, and (iv) monitoring and evaluation (M&E) division [31].

3.3.2. National Policy and Strategic Plan

The national green growth policy was approved by the government on 1 March 2013 in the full cabinet meeting of the Council of Ministers. This policy is envisioned for striking the economy development balancing with the environment and socio-culture, particularly sustainably using national resources by matching, integration, and harmonization between national policies and green economy/green growth principle [5]. The policy is aimed to enhance people's livelihood and well-being in harmonizing with a safe ecology system based on green and blue economies, social safety system, and environment protection, while conserving cultural identity of the nation. The objectives of the policy are to (i) develop an economy with the environmental and sociocultural balance; (ii) create an enabling environment for green growth in fraternity and quality of economic, ecological, and sociocultural systems; (iii) coordinate and manage effectiveness of seven priority accesses (clean water and sanitation, including waste management; renewable energy and energy efficiency; green knowledge and information; means for better mobility; sustainable finance and investments; non-chemical products and food security; and sustainable land use, including protected areas and forest management); (iv) enhance green growth education and training on green growth; (v) strengthen green growth knowledge and information exchange, including good experiences, green investment and green technology; and (vi) stimulate cooperation on green growth at all levels [5].

The national green growth strategic plan was also approved by the government on 1 March 2013 [27] in the full cabinet meeting of the Council of Ministers. This strategy is envisaged to sustainable economic development by achieving sociocultural and environmental sustainability, including ending poverty. It aims at promoting a stable economic growth, reducing environmental pollution, ensuring ecosystem safety, promoting people's livelihood, health service, and quality education, and sustainably managing natural resources, including land use and water resources, as well as increasing energy efficiency, safeguarding food safety, and upholding cultural identity. The strategic plan indicated to improve green growth by focusing on nine strategic directions as follows: (1) creating green jobs and investment; (2) managing green economy balance with environment; (3) developing sustainable blue economy; (4) managing natural resources and green environment; (5) developing green human resources; (6) effectively managing green technologies; (7) promoting social safety system; (8) protecting cultural identity and heritage; and (9) good green-growth governance [27].

3.4. Green Economy under the General Secretariat of NCSD (May 2015 - Nov 2021)

3.4.1. Institutional Integration

In alignment with the 2030 Agenda on Sustainable Development of the United Nations, Cambodia established the National Council for Sustainable Development (NCSD) in May 2015 by consolidating the National Council for Green Growth and its General Secretariat, the National Climate Change Committee and its Secretariat, the National Biodiversity Steering Committee and its Secretariat, and the National Biosafety Committee and its Secretariat. This Council is a policy-making body with a mission to promote sustainable development and to ensure economic, environmental, and sociocultural balances within the Kingdom of Cambodia [6].

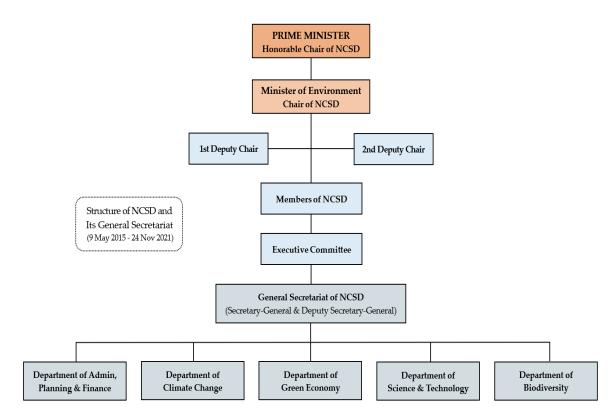


Figure 2. Organizational structure of National Council for Sustainable Development (NCSD) and its General Secretariat, namely General Secretariat of NCSD (GSSD). Source: Drawn by the author based on the Royal Decree [6] and Sub-decree [8] in 2015.

According to the Royal Decree on the Establishment of NCSD dated on 9th May 2015, the Council has Prime Minister as its honorable chair and Miniter of Environment as its chair as shown in Figure 2. A total of 29 ministries and state secretariate (all government's ministries) are its members, with a Secretary of State of the Council of Ministers is the first deputy chair and a Secretary of State for Environment is the second deputy chair, while other members are from relevant government's national and sub-national organizations. SNEC, CDC, NCDM, CARD, and CNMC, and all Governors of the Capital and Provincial Administrations are remained the members while adding the Secretary-General, then changed to Deputy Executive Director of the Secretariat, of National Committee for SubNational Democratic Development (NCDD). According to the member list, the Secretary-General of NCSD is the permanent member of NCSD.

We see that after the integration, the Council was renamed to the National Council for Sustainable Development, responsible not only for green growth/green economy but also climate change, science and technology, and biodiversity and biosafety. Members of the Council are also expanded from 26 ministries to include all government's ministries (29 ministries). The number of relevant government's inter-ministerial council/committee is also increased from 5 (SNEC, CDC, NCDM, CARD, and CNMC) to 6 (added NCDD). The Governors of the Capital and Provincial Administrations are also increased from 24 to 25 because a new province, Tboung Khmum, was formed in 2013.

The Miniter of Environment remained its chair while Prime Minister also remained its honorable chair. However, there is an order of the 'deputy chair' positions. The first deputy chair is given to the Secretary of State of the Council of Ministers whereas the second deputy chair is given to the Secretary of State for Environment. More importantly, the Council has an Executive Committee, which consists of 12 members. The Executive Committee is chaired by the Minister of Environment, supporting by two deputy chairs. The first deputy chair is a Secretary of State for Agriculture, Forestry and Fisheries whereas the second deputy chair is a Secretary of State for Environment. The Secretary-General of NCSD is also a permanent member of this Committee. This shows that the Royal Government has a high commitment for promoting green economic development in Cambodia as evidenced by well-structured national sustainable development council and its executive committee that has a regular meeting at least once in every quarter.

The Royal Decree on the Establishment of the National Council for Sustainable Development (NCSD) also has a General Secretariat for its daily operation, which is housed at the Ministry of Environment. The General Secretariat was led by a Secretary-General, assisted by some deputies as required. According to the Sub-decree on the Organization and Functioning of the General Secretariat of NCSD (GSSD), the General Secretariat has five departments as follows: (i) Department of Administration, Planning and Finance; (ii) Department of Climate Change; (iii) Department of Green Economy; (iv) Department of Science and Technology; and (v) Department of Biodiversity.

3.4.2. NCSD Roles and Duties

According to the Royal Decree No. 403 on the Establishment of the National Council for Sustainable Development (NCSD) dated on 9th May 2015 [6], this Council has roles and duties as follows:

• Formulating, directing, and evaluating policies, strategic plans, action plans, legal instruments, programs, and projects related to sustainable development;

• Promoting mainstreaming of sustainable development into relevant policies, legal instruments, strategic plans, action plans, programs, and projects in collaboration with relevant line ministries and agencies;

• Mobilizing resources for implementation of policies, legal instruments, strategic plans, action plans, programs, and projects related to sustainable development;

• Establishing and fostering partnerships with development partners, private sector, academia, other relevant stakeholders aimed at supporting sustainable development;

• Encouraging and promoting the research study, education, training, exchange of technologies and dissemination relevant to sustainable development;

• Proposing the national positions and strategies for participating in international agreements, meetings and negotiations relevant to sustainable development;

• Reviewing and giving approval on national communications under the multilateral environmental agreements to which Cambodia is a party;

• Managing the government information and communications relevant to sustainable development;

- Leading, managing and facilitating the works related to green economy, climate change, biodiversity conservation and biosafety; and
- Implementing any other duties assigned to it by the Royal Government of Cambodia.

The Royal Decree states that NCSD may convene for meeting at least once a year on invitation by chairperson or his authorized deputy. The NCSD Chair may, as necessary, invite representatives from ministries or agencies, technical officials, experts or private sectors to participate in consultation and research study on issues related to duties of the Council. Where the chairperson is not available, a deputy may chair the meeting of the NCSD as authorized by the chairperson. The Executive Committee of NCSD shall convene for meeting to review and consolidate performance and report to the NCSD at least once in every quarter. Modality and procedure for NCSD and Executive Committee operation shall be defined by an internal regulation of NCSD.

The NCSD may establish the committee(s), working group(s), expert group(s), or other mechanisms for specific sectors of work as required. NCSD may have technical advisor(s), national or international expert(s) as required. NCSD shall have authority to use its own logo, seal, and separate budget as an annex to the budget of the Ministry of Environment. NCSD shall have authority to receive, manage, and use funds from various sources to perform its functions in accordance with legal procedure in force.

3.4.3. Department of Green Economy

According to Sub-decree on Organization and Functioning of the General Secretariat of the National Council for Sustainable Development (NCSD) dated on 18 May 2015 [8], Department of Green Economy is one of the five departments of the General Secretariat of NCSD. This Department has roles and duties as follows:

• Coordinating and implementing legal documents, policies, strategic plan, action plan, programs, and project for supporting the green economy pathway as well as monitoring and evaluation and annual report;

• Coordinating research in related impacts and benefits of development activities to sustainable development dimensions: Economy, environment, society and culture;

• Coordinating natural capital accounting and measuring green domestic products;

• Coordinating feasibility study and establishing pollution-based payment principal mechanism and payment for environmental service and coordinating, monitoring, and evaluating the implementation of agreed mechanism;

• Coordinating research and establishing supporting tool system for decision making such as impact assessment, multicriterial analysis, cost-benefit analysis to contribute to modification or establishment of legal documents, policies, strategic plan, action plan, programs, and projects;

• Researching and developing the policies and the mechanisms related to sustainable consumption and production, such as eco-label and green certification, green public procurement, and monitoring and evaluation of the agreed mechanism;

• Building and strengthening the cooperation with partners, civil society organization, private sector, academic institute and other stakeholders to promote green economy development;

• Disseminating and mobilizing resources for implementation of agreed policies.

According to the Prakas on the Organization and Functioning of the Department of Green Economy dated on 3 December 2015 [9], the Department of Green Economy has five offices as follows: (i) Office of Administration, Planning and Finance; (ii) Office of Policy and Economic Instrument; (iii) Office of Sustainable Lifestyle; (iv) Office of Green Standard and SCP (Sustainable Consumption and Production); and (v) Office of Ecolabel and Green Certification as shown in Figure 3.

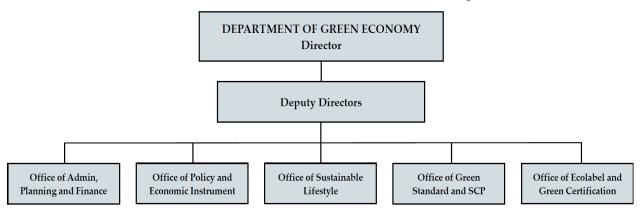


Figure 3. Organizational structure of Department of Green Economy (DGE). Source: Drawn by the author based on MoE Prakas in 2015 [9].

Office of Administration, Planning and Finance serves as the admin of Department whereas the Office of Policy and Economic Instrument is coordinating relevant policies and projects on sustainable energies. The Office of Sustainable Lifestyle is implementing the work and projects on sustainable cities and green buildings whereas the Office of Green Standard and SCP is implementing the work and projects on sustainable consumption and production, circular economy, and green public procumbent and the Office of Ecolabel and Green Certification is implementing the work and projects on ecolabels and green building certification. All offices of the Department of Green Economy are working as collaborating and helping each other since their works are interconnected.

3.5. Green Economy under General Directorate of Policy and Strategy (Nov 2021–Present)

3.5.1. Secretariat Refunctioning

In November 2021, Ministry of Environment was restructured to include the General Secretariat of NCSD in its structure by renaming it to the General Directorate of Policy and Strategy [10]. Five departments of General Secretariat are remained the same under the General Directorate of Policy and Strategy. According to the Royal Decree on the Amendment of the Royal Decree on the Organization and Functioning of the National Council for Sustainable Development (NCSD) dated on 24 November 2021 [32], General Directorate of Policy and Strategy serves as the Secretariat of the National Council for Sustainable Development. Therefore, the Director-General of the General Directorate of Policy and Strategy is also a permanent member of NCSD and its Executive Member.

We see that the amendment is mainly to determine that General Directorate of Policy and Strategy renamed from the General Secretariat of NCSD and under the structure of the Ministry of Environment is remained the NCSD Secretariat. It also indicated that Director-General of General Directorate of Policy and Strategy is a permanent member of NCSD and its Executive Member. Therefore, the General Directorate of Policy and Strategy serves as (i) a policy and strategic directorate-general of the Ministry of Environment and (ii) Secretariat of the National Council for Sustainable Development for the Council's daily operations and continuing the works of the General Secretariat of NCSD, including green economy works under the Department of Green Economy as shown in Figure 4.

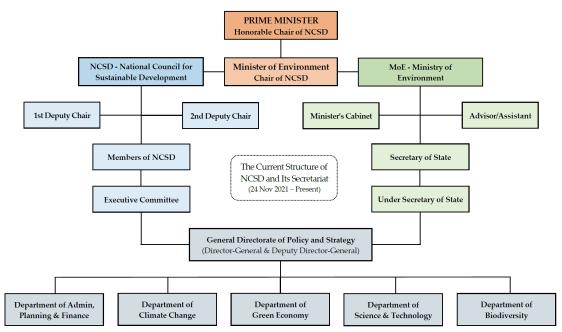


Figure 4. Organizational structure of National Council for Sustainable Development (NCSD) and its Secretariat, namely the General Directorate of Policy and Strategy (GDPS). Source: Drawn by the author based on the Sub-decree [10] and Royal Decree [32] in 2021.

3.5.2. Members of NCSD and Structure of Department of Green Economy

All government's ministries are remained the members of the National Council for Sustainable Development (NCSD), with the Prime Minister as its honorable chair and the Miniter of Environment as its chair, as well as Secretary of State of the Council of Ministers is the first deputy chair whereas the Secretary of State for the Environment is the second deputy chair [32]. There is one ministry changed its name from the Ministry of Industry and Handicraft to the Ministry of Industry, Science, Technology and Innovation (MISTI) in March 2020. Therefore, the amendment of the Royal Decree updated this ministry's name accordingly. Other members from inter-ministerial and sub-national organizations are remained the same. They are NCDD, SNEC, CDC, NCDM, CARD, CNMC, and all Governors of the Boards of Governors of the Capital and Provincial Administrations. The roles and duties of NCSD and its Executive Committee are remained the same.

Furthermore, the amended Royal Decree determined the Director-General of General Directorate of Policy and Strategy to replace the Secretary-General post of NCSD as the permanent member of NCSD and its Executive Committee. The amended Royal Decree also determined that officials and properties of the General Secretariat of NCSD shall be moved to under the structure and management of Ministry of Environment. According to the Sub-decree on Organization and Functioning of the Ministry of Environment dated on 17 November 2021, the roles and duties, as well as the structure and departments' names of the General Directorate are remained the same with the General Secretariat of NCSD. According to Prakas on Organization and Functioning of Offices under the Departments of General Directorate of Policy and Strategy dated on 13 December 2021, the five offices of the Department of Green Economy are remained the same: (i) Office of Administration, Planning and Finance; (ii) Office of Policy and Economic Instrument; (iii) Office of Sustainable Lifestyle; (iv) Office of Green Standard and SCP (Sustainable Consumption and Production); and (v) Office of Ecolabel and Green Certification [33].

4. Progress of Green Economic Development in Cambodia

4.1. The Code and Policies Supporting Green Economy Transition

Environment and Natural Resources Code of Cambodia: The Code was recently approved by Cambodia's National Assembly and Senate and endorsed by the King of Cambodia on 29 June 2023. The Code sets the rules to improve, harmonize, modernize, and strengthen in protecting and conservating the environment and restoring the biodiversity, natural resources, and ecosystem functions for sustainable living and development in Cambodia. The Code definitively identifies significant provisions to strengthening wildlife and natural resource conservation, promoting renewable energy consumption, and building climate resilience and sustainable urban environments in order to have capacity for effectively dealing with issues of waste management and pollutions. This Code is a set of environmental laws and subsequently replacing the three following laws: (i) Law on Environmental Protection and Natural Resources Management – 1996; (ii) Law on Protected Areas – 2008; and (iii) Law on Biosafety – 2008 [34]. National Green Growth Policy and Strategic Plan 2013-2030: As demonstrated in Section 3.3.2, the Policy and Strategic Plan on Green Growth were approved by the government on 1 March 2013 in the full cabinet meeting. This policy is envisioned for striking the economy development balancing with the environment and socio-culture, particularly sustainably using national resources by matching, integration, and harmonization between national policies and green economy/green growth principle [5]. The policy is aimed to enhance people's livelihood and well-being in harmonizing with a safe ecology system based on green and blue economies, social safety system, and environment protection, while conserving cultural identity of the nation. The objectives of the policy are to (i) develop an economy with the environmental and sociocultural balance; (ii) create an enabling environment for green growth in fraternity and quality of economic, ecological, and sociocultural systems; (iii) coordinate and manage effectiveness of seven priority accesses (clean water and sanitation, including waste management; renewable energy and energy efficiency; green knowledge and information; means for better mobility; sustainable finance and investments; non-chemical products and food security; and sustainable land use, including protected areas and forest management); (iv) enhance green growth education and training on green growth; (v) strengthen green growth knowledge and information exchange, including good experiences, green investment and green technology; and (vi) stimulate cooperation on green growth at all levels [5,27].

Cambodia's Long-Term Strategy for Carbon Neutrality: This strategy has been approved by the Royal Government of Cambodia in December 2021. Based on a comprehensive relevant economic sector analysis and modelling and by looking several decades ahead, this strategy aims at outlining each sector's priority mitigation actions to achieving Cambodia's economic goal with carbon neutrality by 2050. The strategy is mainly built on the Cambodian government's existing commitments and proposed a reliable trajectory with the country's updated nationally determined contributions (NDCs). This strategy is also taking into account of the balance between stable economic growth, social inclusiveness, emission reduction, and climate resilience. An analysis of economic development demonstrated in this strategy showed that 449,000 additional jobs are potentially expected to be created with adding the annual GDP growth rate of 2.8% for Cambodia by 2050. The strategy is expected to achieve carbon neutrality by 2050 through continued efforts in addressing sustainable forest and land use management, decarbonizing the power sector with pursuing higher efficient energy consumption, and promoting low-carbon industrial process, green agriculture, and sustainable waste management. The strategic vision was set out to providing a policy direction, while showing the Royal Government's particular commitments and programs that are being continued to articulate in the five-year national strategic development plan (NSDC) and corresponding the sectoral plans [35].

Circular Economy Strategy and Action Plan: This strategy and action plan, which was approved on 29 June 2021, indicates the important vision and mission and key strategies and roadmap for the country's circular economy transition. The goals of this strategic plan are (a) increasing sustainable energy use and production; (b) increasing sustainability pattern of consumption; (c) reducing at-source waste generation; (d) improving waste management, collection, segregation, and transport effectiveness; (e) promoting repair and reuse of products; (f) increasing the waste composting and recycling and energy recovery; (g) ensuring controls of the environment at all-site waste management; and (h) promoting environmental education dissemination and raising awareness. Furthermore, the five following strategic objectives were identified: (i) increasing efficient raw material use and promoting sustainable production and design, remanufacturing, and distribution; (ii) promoting effective repair and reuse and sustainable consumption; (iii) enhancing the collection and recycling of wastes; (iv) ensuring effective residual waste management; and (v) enhancing stakeholder awareness, capacity building, and engagement [36].

Green City Strategic Planning Methodology: A Guide for the Development of a Green City Strategic Plan: This strategic planning was endorsed in August 2016 as a guideline for relevant line ministries and Cambodian capital and city administrations to embark on the transforming process of the cities in Cambodia towards greater green growth and sustainability, with the technical supports from GGGI and Ministry of Environment/National Council for Sustainable Development, particularly the Department of Green Economy. This guideline is fundamentally organized with the ten following key steps: (1) governance arrangements for green city strategic planning; (2) urban context baseline assessment; (3) shared urban development vision, mission, and goals for the green city; (4) key urban sector review for promoting green growth in the city; (5) urban green growth priority objective development; (7) green urban development project prioritization; (8) envisioning green growth scenarios for the city; (9) making priority green urban project list; and (10) strategic plan arrangements for green city implementation [13].

Cambodia National Green Growth Roadmap: As demonstrated in Section 3.2, the roadmap was developed by the Inter-Ministerial Green Growth Working Group in 2009. It is an important tool contributed to the national policy and strategy implementation of sustainable development in Cambodia, combined the general objective of pre-existing development strategies with green growth creation and maintenance, and identified as an economic progress with environmental sustainability that accelerate the socially inclusive and low-carbon development. Importantly, it is aimed to unify the environment and development objectives by a means of policy implementation tailor-made to address all needs of job creation and increasing environmental resilience towards maintaining long-term economy growth, environmental sustainability, and human well-being. Consequently, it laid

out seven key priority accesses: (i) access to clean water and sanitation, including waste management; (ii) access to sustainable energy, including renewable energy and energy efficiency; (iii) access to knowledge and information, including green education and skills; (iv) access to means for sustainable transports; (v) access to sustainable finance and investments; (vi) access to food security and non-chemical products; and (vii) access to sustainable land use, including protected areas and forest management [1].

Cambodia's Roadmap for Sustainable Consumption and Production 2022-2035: The roadmap was developed to lay out key strategies and priority actions for strengthening Cambodia's sustainability in socioeconomic development sectors, including education, mines and energy, protected areas and land use management, etc. The goals of this roadmap are (1) sustainable consumption and production (SCP) promotion of goods and services; (2) policy and program identification and implementation, including incentives and enabling environments; (3) research and development (R&D) strengthening in business, public services, and consuming behaviors of the community; (4) across all-sector SCP leadership promotion; and (5) Cambodian citizens' awareness raising and capacity building on SCP and its implementation at all levels [37]. Other supporting regulations/policies/initiatives were demonstrated in Appendix A1.

4.2. Pentagonal Strategy Phase I of the Royal Government of Cambodia

The Pentagonal Strategy Phase I for Growth, Employment, Equity, Efficiency, and Sustainability: Building the Foundation towards Realizing the Cambodia Vision 2050 is a new national development strategy of the Royal Government of Cambodia for the years 2023 to 2028 and a successor of the Rectangular Strategy [38]. It serves as a guide to direct activities of all stakeholders to continue maintaining the momentum of peace and the accumulation of the past achievements, as well as the building of foundations to achieve accelerated development in the medium and long terms through targeted reforms across all areas, remarked by Samdech Hun Manet, Prime Minister of the Kingdom of Cambodia during the first meeting of his cabinet [39].

The Royal Government of Cambodia successfully implemented the Triangular Strategy and Rectangular Strategy in four distinct phases, with major achievements in all areas, including politics, society, and economy, enabling Cambodia to proudly renew its image for over the last 25 years, since achieving full peace, national unity, and territorial integrity through the Win-Win Policy of Samdech Hun Sen, former Prime Minister of Cambodia. Based on the stocktaking of the achievements over the past 25 years, the assessments of regional and global trends, and prognostications for the next 25 years, the objective has been set towards realizing Cambodia Vision 2050 to meet people's aspirations. Hence, the government adopted the "Pentagonal Strategy" to boost growth, create jobs, ensure equity, increase efficiency, and maintain sustainability [39].

The Pentagon Four indicated the "Resilient and Sustainable Development" in which the Royal Government of Cambodia continues to focus on five priorities:

(i) Optimization of demographic dividends, strengthening of demographic resilience and promotion of gender equality, with strategic objectives, focusing on optimizing the benefits from demographic dividends and strengthening the demographic resilience, by further promoting the implementation of the National Population Policy and promoting women's participation in leadership; (ii) Sustainable management of natural resources, cultural heritages and tourism, with strategic objectives, focusing on conservation for the development to enhance contribution to the development of agriculture, industry, and tourism; strengthening mineral resource management; ensuring the sustainability of forest resources, fisheries, and soil quality; as well as ensuring the sustainable protection, development and full utilization of cultural heritages and tourism. (iii) Promotion of agriculture and rural development, with the strategic objectives, focusing on further strengthening the roles and development of modern, diversified, and resilient agricultural sector that supports rural development in order to ensure the food security and safety; increasing values added; promote competitiveness; and improving the quality of rural livelihoods; (iv) Strengthening urban management and modernization, with strategic objectives, focusing on expanding the existing urban areas and developing new ones in the capital city and provinces; creating public gardens and green parks; and strengthening urban management and modernization to ensure safety, beauty, good environment, and well-being of people, as well as socio-economic efficiency; and (v) Ensuring environmental sustainability and readiness for responding to climate change, as well as promotion of a green economy, with strategic objectives, focusing on minimize environmental pollution and impact; strengthening the water management and climate resilience; and contributing to the reduction of the impact of the global climate change to ensure sustainable development [38].

The Pentagon Five indicated the "Development of Digital Economy and Society" in which the Royal Government of Cambodia continues to focus on five priorities: (i) Building the digital government and digital citizens, with the strategic objectives, focusing on spearheading the digital transformation, in which the Royal Government of Cambodia is a role model and steers the adoption of digital technologies, through digitalization of public administration and services to strengthen the effectiveness and efficiency in the deliveries of services to the people and private sectors, and through strengthening of data-driven governance; (ii) Development of the digital economy, digital business, e-commerce, and digital innovative system, with strategic objectives, focusing on promoting digital transformation in the economic sectors; developing digital startups; promoting the Enterprises Go Digital; developing digital value chains and e-commerce; and promoting, building, and developing the digital innovation system, to facilitate business and trade, aimed at accelerating economic growth; (iii) Building and development of the digital infrastructures, with strategic objectives, focusing on building and expanding digital infrastructures, including digital connectivity, telecommunications infrastructures and cloud or data centers, aimed at strengthening the quality and efficiency of digital connectivity, information sharing and provision of the telecommunications services; (iv) Trustworthiness building in digital system, with strategic objectives, focusing on building trustworthiness in digital system, by developing infrastructures and institutional frameworks for digital security and raising awareness on digital security to promote the widespread use of digital technologies; and (v) Development of the financial technology, with strategic objectives, focusing on developing financial technologies by fully grabbing the opportunities and reaping the benefits of digital technologies to promote financial inclusion, financial stability, and the financial innovation, through the implementation of the Cambodia Financial Technology Development Policy 2023-2028 [38].

4.3. SWOT Analysis

4.3.1. Strengths

This research examined the strengths of green economic development in Cambodia as follows:

• Cambodia has high economic growth with political stability;

• RGC's Rectangular Strategy Four-Phase and Pentagonal Strategy Phase I have strongly supported green economy and low-carbon development;

• Cambodia has a strong responsible institution for promoting green economy and sustainable development for both policy-making and technical/implementing levels (Inter-Ministerial Council, Operating Secretariat, and Technical Department);

• Members of the National Council for Sustainable Development (NCSD) are Secretary of State levels from all RGC's ministries and relevant committees—good for cross-sector policy making, coordination, and consultation. All Governors of the Capital and Provincial Administrations are also its members—good for implementation of the work at sub-national levels;

• Cambodia has significantly developed regulations and policies for supporting green economy transition, particularly the environmental code, new law on investment, green growth policy, carbon neutrality strategy, etc.

• Ministries and relevant institutions, as well as capital and provincial administrations (NCSD members) have been developing/integrating green economy/green growth principles in their development plan;

• Cambodia has been strongly supported by development partners, for example, UN PAGE Agencies: UNIDO, UNDP, UNITAR, ILO, and UNEP; GGGI; EU; etc.;

• Many relevant stakeholders have been supporting green economic development in Cambodia, which means that not only the government, but also private companies, business, academia, and civil societies have been supporting green economy;

• Public awareness on environmental issues, including climate change, clean and green development, and green economy and sustainable development has been largely started at all national and sub-national levels (nationwide).

4.3.2. Weaknesses

This research examined the weaknesses of green economic development in Cambodia as follows:

• Cambodia is still lack of human/technical and financial resources for green economic development;

• Capacities of national institutions, especially sub-national institutions for integrating green economy/green growth principles into their development plan are still limited;

• Procedures for integrating green economic mechanisms into relevant sectors are still facing difficulties and challenging;

• Cambodia is still weak in R&D and science-based decision making; still limited in science and technology;

• Green growth/green economic development is not a common practice (needed strong commitments, efforts, and good understanding).

4.3.3. Opportunities

This research examined the opportunities of green economic development in Cambodia as follows:

• There are highly increasing in global and regional interests on low-carbon and green economic development;

• Green growth/green economic development principles have always been integrated into the national development plans, and clearly addressed in the RGC's Pentagonal Strategy Phase I;

• RGC has increased priority and targets in the National Development Plan for green economy and sustainable development;

• Cambodian livelihoods have improved—a right time to strengthening public and/or citizen's involvements in environmental protection;

• Cambodia officially became a member of the UN Partnership for Action on Green Economy (PAGE) and has been implementing the five-year workplan, supported by five joint UN Agencies [40];

• Cambodia developed green and sustainable city strategic plan for the capital and seven secondary cities, with identified a list of 48 priority projects for green growth and circular economy promotion.

4.3.4. Threats

This research examined the threats of green economic development in Cambodia as follows:

• There is still limited in understanding of green economy and growth and sustainable development;

• Some existing policies and priorities are conflicting with green economy and green growth policy;

• Some of key economic sectors are also confronting with green growth and green economy principles;

• There is still limited in capacities of national government institutions for coordinating cross-cutting sector works;

• Green growth/green economy policy and project implementations are facing with impacts of climate change and global crisis.

5. Conclusions

5.1. Summary and Conclusions

By demonstrating the background and progress of green economy transition with an analysis of the strengths, weaknesses, opportunities, and threats, this research found that Cambodia has been significantly transitioning its green economy since 2009 as evidenced by the National Green Growth Roadmap. Cambodia has been strongly supported by the Global Green Growth Institute (GGGI) since 2011 as evidenced by MoU on Green Growth Cooperation. Furthermore, Cambodia internationally co-founded a treaty-based inter-governmental GGGI organization at the Rio+20 Earth Summit, which has its headquarters in Seoul, South Korea, with its Country's Office in Cambodia. Moreover, the Government first established a National Inter-Ministerial Green Growth Council, and finally upgraded it to National Inter-Ministerial Sustainable Development Council in 2015.

The National Council for Sustainable Development (NCSD) is not only responsible for green growth/green economic development but also climate change mitigation and adaptation, science and technology, and biodiversity. More importantly, members of the NCSD are from all the government's ministries and relevant inter-ministerial committees/ councils, which are significant for policymaking. Especially, all Governors of the Capital and Provincial Administrations are also members of the NCSD, which are significant for supporting and implementing the works at sub-national levels. The NCSD also has the Secretariat for its daily operation works, and this operating Secretariat has five departments, including the Department of Green Economy (DGE). This Department plays an important role in promoting green economic development in Cambodia by looking at the national policies and strategic plans, undertaking projects, and mobilizing the resources. Currently, this Department is implementing the works and projects on sustainable cities, green buildings, sustainable energy and energy efficiency, circular economy, sustainable consumption and production (SCP), and green public procumbent (GPP).

The green growth/green economy principles have been integrating into the national development plan since the beginning of Rectangular Strategy and clearly indicated by Pentagon Strategy Phase I for growth, employment, equity, efficiency, and sustainability: Building the foundation towards realizing the Cambodia vision 2050. This shows the high commitment of the government in promoting green growth/green economy development and sustainable development. Recently, Cambodia also endorsed the Environment and Natural Resources Code as a strong

legal instrument for sustainable development with comprehensively outlined green economic development, including green and sustainable city development and sets out the rules to be followed and practiced in strengthening, modernizing, harmonizing, and improving management of environmental protection and conservation and restoration of natural resources, biodiversity, and ecosystem functions for sustainable living and development within the kingdom. More than that, Cambodia officially became a member of the UN Partnership for Action on Green Economy (PAGE), which has been implementing the five-year workplan supported by the five UN agencies. Remarkably, GGGI has supported Cambodia in the development of green and sustainable city plans for the Phnom Penh capital and seven emerging secondary cities.

The findings showed that Cambodia is transitioning its green economy with a high political commitment and started at the right time for its green economy transition. The present green economic development mechanisms could accelerate Cambodia to achieve its green and sustainable development and to balance the economic, environmental, and socio-cultural objectives. The research revealed that the green economic development in Cambodia has been dramatically set to reduce negative impacts on the environment while improving livelihoods with protecting the culture and natural heritage. Balancing the economy, environment, and socio-culture is a long-term vision and win-win solution for achieving clean, green, and sustainable development in Cambodia. More importantly, both Rectangular and Pentagonal Strategies have been strongly supporting the clean, green, and sustainable development; in particular, one of the five pentagonal strategies (Pentagon 4) is to promote resilient, sustainable, and inclusive development.

This research is limited to the national green economic development mechanisms of the main government responsible institutions (national inter-ministerial council, NCSD, and its operating secretariat, GSSD, and technical department, DGE). Therefore, other green economy or related divisions at the NCSD's membered ministries and relevant councils/committees, as well as capital and provincial administrations were not covered in this research. Hence, future research exploring other existing green economy or related mechanisms at those NCSD's membered national and sub-national institutions would be further improved understanding of green economy transition in specific sectors and sub-sectors, especially its progress and challenges at the sub-national levels.

5.2. General Recommendations

The following recommendations are made in general based on the findings of this research on green economy transition in Cambodia:

• Cambodia should invest more on research and development (R&D) in green growth and green economic development, particularly on green technology and innovation, renewable energies, and energy generation from municipal solid wastes.

• Green growth and green economic development are needed technological skills for creating alternative or renovating new resources; therefore, the government should support its young officials to pursue a master's or PhD degree in these fields;

• National and international investments should take high considerations on negative impacts of investment projects on the environment and public health, such as the quality of life and natural environment and resources.

• All relevant stakeholders should be contributing to and involving in green activities and sustainability or related projects because joining hands together we can achieve a clean, green, and sustainable development.

• Education ministry should increase green or environmental curriculum in order to make students widely known about green concepts and activities—this is good for them to think and act clean, green, and sustainable in everyday life.

5.3. Recommendations for DGE

The following recommendations are made for Department of Green Economy (DGE) based on the findings of this research on green economy transition in Cambodia:

• DGE should prepare educational documents or guidebooks in to help improving the understanding of the publics, especially students, on environmental-friendly or green activities in everyday life;

• DGE should create the media programs to promote national activities and raise awareness on clean, green, and sustainable activities and citizens' involvement via television programs, YouTube, Facebook, etc.

• DGE should have a group of trainers to provide training on green economy concepts, such as "Think Green, Act Green" to the students from primary school to university levels, and to local officials and local communities.

• DGE should collaborate with research institutions to conduct research on renewable energies, energy generation from municipal wastes, green technology, etc.

• DGE should cooperate with research institutions to provide some courses relating to green growth/green economy for sharing experiences, exchange projects, and skill development, as well as providing places for students to intern or volunteer.

• DGE should involve students from universities and institutions in dissemination workshops, capacity development programs, green growth and green economy seminars, and other national green growth programs.

• DGE should create an R&D office for coordinating the research and development on clean and renewable energies, energy generation from municipal solid wastes, green technology, green buildings, green industry, etc.

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Appendix

Table A1. Regulations/policies/initiatives supporting green economy transition in Cambodia listed in ascending order by year.

No	Title (Note)	Year
1	National Green Growth Roadmap [1]	2009
	(published online in December 2009 and printed book in March 2010)	
2	Cambodia Climate Change Alliance [41]	2010
	(led by MoE and supported by EU, Denmark, Sweden, and UNDP)	2010
3	Memorandum of Understanding on Green Growth Cooperation [30]	2011
	(first MoU with GGGI signed in March 2011)	
4	Royal Decree on the Establishment of National Council for Green	
	Growth [4]	2012
	(replaced by Royal Decree [6])	
	Sub-decree on Organization and Functioning of General Secretariat of	
5	NCGG [31]	2012
	(replaced by Sub-decree [8])	
6	National Policy on Green Growth [5]	2013
	(approved by the Government on 1 March 2013 in the full cabinet meeting)	0.010
7	National Strategic Plan on Green Growth 2013-2030 [27]	2013
8	Cambodia Climate Change Strategic Plan 2014-2023 [42]	2014
9	Royal Decree on the Establishment of the National Council for	2015
	Sustainable Development (NCSD) [6]	
10	Sub-decree on Organization and Functioning of General Secretariat of	0 01F
10	NCSD [8]	2015
	(repealed by Sub-decree [10]) Prokes on Organization and Europian of Department of Crean	
11	Prakas on Organization and Functioning of Department of Green Economy [9]	2015
11	(repealed by Prakas [33])	2013
	Green City Strategic Planning Methodology: A Guide for the	
12	Development of a Green City Strategic Plan [13]	2016
	Memorandum of Understanding on Continuous Green Growth	
13	Cooperation [43]	2016
	Phnom Penh Green City Strategic Plan 2017–2026 and List of Priority	2017
14	Green City Investment Projects [14]	
15	Phnom Penh Sustainable City Plan 2018–2030 [44]	2018
16		2018
	Economic, Social and Environmental Impacts of Greening the Industrial	2018
17	Sector [46]	
18	Cambodia: De-risking Renewable Energy Investment [47]	2019
10	Guidelines and Certification Standards for Green Buildings in Cambodia	2010
19	[48]	2019

20	Sustainable City Strategic Plan 2020-2030 for Seven Secondary Cities [49]	2020
21	Full Economic Appraisal of the Potentials of Solar PV Energy in Cambodia [50]	2020
22	Royal Decree on the Amendment of the Royal Decree on the Establishment of NCSD [32]	2021
23	Sub-decree on Organization and Functioning of the Ministry of Environment [10]	2021
24	Prakas on Organization and Functioning of the Offices under the Departments of the General Directorate of Policy and Strategy [33]	2021
25	New Law on Investment [51] (<i>indicating encouragements/incentives for environmental-friendly investments</i>)	2021
26	Stocktaking and Analytical Options for Green Buildings in Cambodia [52]	2021
27	Guideline on Green Office and Green Event and Evaluation Mechanism [53]	2021
28	Cambodia's Long-Term Strategy for Carbon Neutrality [35]	2021
29	Circular Economy Strategy and Action Plan [36]	2021
30	Cambodia's Roadmap for Sustainable Consumption and Production 2022-2035 [37]	2022
31	Memorandum of Understanding on Continuous Green Growth Cooperation [54]	2022
32	UN Partnership for Action on Green Economy (PAGE) [40]	2022
33	National Energy Efficiency Policy 2022-2030 [55]	2022
34	Environment and Natural Resources Code of Cambodia [34]	2023
35	New Law on Public Procumbent [56] (indicating green public procumbent–GPP–promotion)	2023
36	Pentagonal Strategy for Growth, Employment, Equity, Efficiency, and Sustainability [38]	2023
37	Circular Strategy on Environment 2023-2028 [57]	2023
38	Draft Sub-decree on Ecolabel [58]	2023
39	Draft Cambodia's Guidelines and Certification for Green Buildings (CamGCGB) [59]	2023
40	Draft NCSD Decision on the Establishment of the National Steering Committee (NSC) for the United Nations Partnership for Action on Green Economy (PAGE) in Cambodia [60]	2023

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