



CAMBODIA SDG INVESTOR MAP

INVESTMENT OPPORTUNITY AREAS REPORT

August 2022



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ACRONYMS

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
B2B	Business-to-Business
B2C	Business-to-Consumer
CO	Country Office
CO2	Carbon Dioxide
CSDG	Cambodia Sustainable Development Goals
DFI	Development Finance Institution
ESCO	Energy Service Companies
EV	Electric Vehicle
FAO	Food and Agriculture Organization of the United Nations
FLW	Food Loss and Waste
GDP	Gross Domestic Product
GGGI	Global Green Growth Institute
GHG	Greenhouse Gases
GIIN	The Global Impact Investing Network
GNI	Gross National Income
IB	Inclusive Business
ICT	Information and Communications Technology
IMP	Impact Management Project
IOA	Investment Opportunity Area
IT	Information Technology
KWSH	Khmer Water Supply Holdings
LMS	Learning Management System
LPG	Liquefied Petroleum Gas
MFI	Microfinance Institutions
MISTI	The Ministry of Industry, Science, Technology and Innovation
MSME	Micro, Small and Medium Enterprises
MSW	Municipal Solid Waste
NGO	Non-Governmental Organizations
NSDP	National Strategic Development Plan
PE	Private Equity



PII	Private Impact Investors
PPP	Public-Private Partnership
PV	Photovoltaic
PWS	Piped Water System
QIP	Qualified Investment Project
RDF	Refuse Derived Fuel
RGC	The Royal Government of Cambodia
RS	Rectangular Strategy
RSIII	Rectangular Strategy Phase III
RSIV	Rectangular Strategy Phase IV
SASB	Sustainability Accounting Standards Board
SDG	Sustainable Development Goals
SDR	Sustainable Development Report
SEZ	Special Economic Zone
SME	Small and Medium Enterprises
STEM	Science, Technology, Engineering and Mathematics
TVET	Technical and Vocational Education and Training
UN	United Nations
UNDP	United Nations Development Programme
UNESCAP	UN Economic and Social Commission for Asia and the Pacific
UNICEF	United Nations Children's Fund
UNOPS	United Nations Office for Project Services
US	United States
USA	United States of America
USD	United States Dollar
VC	Venture Capital
VNR	Voluntary National Review
WTE	Waste-to-Energy



GLOSSARY OF TERMS

Term	Definition
Investment Opportunity Area (IOA):	Describes the space where new capital can facilitate the scale of existing impactful business models or where new business models can achieve significant impact.
White Space	Describes Investment Opportunity Areas (IOAs) that have potential for high development impact and have high growth potential, but face certain obstacles from having insufficient policy momentum, limited private sector participation, or are currently hindered by certain types of risks such as business risk, market risk, capital risk, etc.
Priority Sector and Priority Sub-sector	Priority sectors and priority sub-sectors are classified by SASB's Sustainable Industry Classification System (SASB SICs) ¹ which, through research and stakeholder engagement, have been recognized as important for the sustainable development the country and could be driven by capital flows from the private sector.
Business-to-Business (B2B)	Refers to commerce between businesses where a business engages in services or products with other businesses.
Business-to-Consumer (B2C)	Refers to commerce between businesses and consumers where a business sells products and services directly to an individual consumer.
Blended Financing	Refers to the use of public or philanthropic funds to catalyze private capital investment, particularly in emerging or frontier markets. Blended finance is most relevant for investments with high sustainable development impact that are not attracting private investment, but still have a business rationale and potential cash flows to repay the private partner.
Concessional Financing	These are loans that are extended on terms substantially more generous than market loans. The concessionality is achieved either through interest rates below those available on the market or by grace periods, or a combination of these. Concessional loans typically have long grace periods.
Sustainable Development Goals (SDGs)	The Global Goals were adopted by 193 Member States at the historic United Nations General Assembly Summit in 2015 in Addis Ababa. They are a universal call to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. The Sustainable Development Goals (SDGs) consist of 17 goals that are inclusive of sustainability spots in economic, social, and environmental dimensions.
Goal 1 No Poverty	End poverty in all its forms everywhere.



Term	Definition
Goal 2 Zero Hunger	End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.
Goal 3 Good Health and Well-Being	Ensure healthy lives and promote well-being for all at all ages.
Goal 4 Quality Education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
Goal 5 Gender Equality	Achieve gender equality and empower all women and girls.
Goal 6 Clean Water and Sanitation	Ensure availability and sustainable management of water and sanitation for all.
Goal 7 Affordable and Clean Energy	Ensure access to affordable and modern energy for all.
Goal 8 Decent Work and Economic Growth	Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.
Goal 9 Industry, Innovation and Infrastructure	Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.
Goal 10 Reduced Inequalities	Reduce inequality within and among countries.
Goal 11 Sustainable Cities and Communities	Make cities and human settlements inclusive, safe, resilient, and sustainable.
Goal 12 Responsible Consumption and Production	Ensure sustainable consumption and production patterns.
Goal 13 Climate Action	Take urgent action to combat climate change and its impacts.
Goal 14 Life Below Water	Conserve and sustainably use the oceans, seas, and marine resources for sustainable development.
Goal 15 Life on Land	Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss.



Term	Definition
Goal 16 Peace, Justice and Strong Institutions	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable, and inclusive institutions at all levels.
Goal 17 Partnerships for the Goals	Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development.



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EXECUTIVE SUMMARY

The Royal Government of Cambodia has developed long-term development objectives, namely through the creation of the Cambodia Vision 2050 and Cambodia Sustainable Development Goals (CSDGs). Mid-term plans such as the Rectangular Strategy (RS) and the National Strategic Development Plan (NSDP) are used as policy instruments to achieve these long-term objectives. The Royal Government is committed to Cambodia's transition to an upper-middle-income country by 2030 and a high-income country by 2050.

The COVID-19 pandemic has, however, had a profound impact on every aspect of life, including on the implementation of the CSDGs and other strategic plans. Among the challenges faced is the mobilization of financial resources, as they have been diverted predominantly toward coping with the pandemic. By 2025, it is anticipated that the funding available to support development will reach US\$23.4 billion, or 69.8 percent of GDP¹.

The Cambodia SDG Investor Map 2022 is a tool developed by the United Nations Development Programme (UNDP) Cambodia Country Office and the UNDP Sustainable Finance Hub's SDG Impact. The Centre for Impact Investing and Practices (CIIP) has been the anchor partner for the SDG Impact activities in the ASEAN countries. The SDG Investor Map identifies commercially viable Investment Opportunity Areas (IOAs): that is, business models which are aligned with sustainable development needs and government policy priorities, and which have potential for profitable and scalable private sector investment and business operations. The map is backed up by data and evidence gathered through extensive consultations with relevant stakeholders and rigorous research. It can be used as both a public good for private investors, enterprises, and financial intermediaries, as well as by the government to facilitate productive and SDG-aligned capital deployment.

This report presents highlights from the Cambodia SDG Investor Map, which was developed based on secondary data research and a total of 94 meetings with the private sector, government, development partners, non-governmental organizations, and experts from UNDP. As the SDG Investor Map aims to provide investors with insights into local markets and opportunities that both advance the SDGs and generate financial returns for investors, the Cambodia SDG Investor Map identifies six sectors, 11 sub-sectors, and particularly 15 IOAs, the key characteristics of which can be summarized as follows:

- First, the 15 IOAs are spread across key sectors such as agriculture and allied industries (4 IOAs), financial services (3

1. UNDP (2021). Cambodia's Development Finance Assessment. Available at: <https://www.undp.org/cambodia/publications/cambodias-development-finance-assessment>

IOAs), infrastructure (3 IOAs), renewable energy (3 IOAs), education (1 IOA), and healthcare (1 IOA).

- Second, in terms of ticket size, a third of the IOAs identified seek funding in the range of \$1 million to \$10 million, just over a quarter of the IOAs require funding that is greater than \$10 million, and the remaining are classified in the under \$1 million category.
- Third, with respect to timeframe, 20 percent of IOAs are expected to provide payback on investments within a period of five years, 60 percent within between 5-15 years, and 20 percent in more than 15 years. IOAs under the areas of education and healthcare typically have a short-term investment gestation period, while most IOAs under agriculture and allied industries, renewable energy, and financials have a medium-term investment gestation period. Infrastructure IOAs have a medium to long-term gestation period.
- Fourth, as far as financial models are concerned, 47 percent of the IOAs are expected to be funded through commercial capital, while the remaining are expected to be funded with either concessionary capital or blended financing instruments.
- Finally, using the Impact Management Project (IMP) classification², the Cambodia SDG Investor Map has identified two IOAs under renewable energy under category- A (act to avoid harm) where investments can potentially support the avoidance of harm to the planet; five IOAs under agriculture and allied industries, education, and infrastructure under category B (benefit to stakeholders) where investments can benefit various intended stakeholders; and eight IOAs under category C (contribute to solutions) where investments can contribute to solutions that accelerate the SDGs. For instance, investment opportunities under healthcare such as telemedicine have the potential to impact the underserved population of the country.

White spaces have also been identified which are IOAs with the potential for growth aligned with development needs and government policies but that have limited private sector participation, or potential IOAs that have private sector participation but lack government policy support. Ten white spaces across four priority sectors including education (educational content creation, digital learning, and linking technical and vocational education and training

2. Impact Management Project (2018). A guide to classifying the impact of investments. Available at: <https://impactmanagementproject.com/wp-content/uploads/A-Guide-to-Classifying-the-Impact-of-an-Investment-3.pdf>



(TVET) to factories), agriculture and allied industries (aquaculture and the dairy product industry), infrastructure (SME cluster park and recycling projects), renewable energy (electric vehicles and consultancy agencies on energy efficiency), and tourism (sustainable small-scale tourism projects targeting the local population) have been identified that point to the need for developing market ecosystems that encourage private sector participation.

The Cambodia SDG Investor Map has been created to showcase business prospects with a supportive policy environment that can have a significant influence on sustainable development. It will serve as the foundation for discussions surrounding policy-level measures to strengthen the ecosystem and to entice private investors and enterprises to raise capital and direct business operations toward the designated SDG-relevant sectors. Additionally, it is hoped that the gatherings and facilitation platforms made possible by the application of insights from the SDG Investor Map will drive a purposeful and informed push towards making the 2030 SDG Agenda the focal point of the private sector's actions. It is also hoped that the SDG Investor Map will serve to inform the broader government financing strategy in the Integrated National Financing Framework.

INTRODUCTION

The 2030 Agenda and the Sustainable Development Goals (SDGs) articulate the United Nations (UN) ‘universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity’. The UN estimates that achieving the SDGs requires overcoming a critical financing gap of US\$3.3-4.5 trillion per year.³ It recognizes that the private sector has a fundamental role to play if the world is to achieve the Goals and ensure economic growth and poverty reduction that does not come at the expense of environmental damage, climate change, and social and income inequalities.

Private sector participation will be required at a larger scale than that which is presently deployed through the global investment community. This means encouraging greater SDG- aligned investments from institutional investors and corporations, using the 2030 Agenda as a proactive roadmap for capital deployment, rather than exclusively as a framework for retroactive and often public finance-focused assessment of impact.

SDG Investor Maps are created using an established methodology which combines secondary data research on existing development needs, policy priorities, and market opportunities with interviews and discussions with public and private sector stakeholders to verify findings and contribute new insights. The data are analyzed to distill Investment Opportunity Areas (IOAs) and data-backed business models. The findings of the Investor Maps are synthesized and uploaded onto a dynamic online platform (<https://sdginvestorplatform.undp.org>) where investors can search for market intelligence on investment opportunities using relevant filters including sectors, regions, and SDGs, as well as return profiles, market size, and timeframes of investments.

The SDG Investor Map process will establish a more holistic, public and private, approach to financing national sustainable development in Cambodia and informing the broader government financing strategy in the Integrated National Financing Framework. The lessons learned and results of the pilot in Cambodia will also contribute to the continued refinement of the SDG Investor Map process globally, alongside the lessons learned from other pilot countries.

Private and public stakeholders and key informants were consulted and interviewed at several steps of the process to confirm findings and collect data. In total, 94 individual meetings were conducted. These included 61 meetings with the private sector, 15 with the government, and 18 with development partners, non-governmental organizations (NGOs), and experts from UNDP. The consultations with the private sector included leading business associations, private equity firms, ecosystems builders (e.g., incubators and consultancy firms), individual experts, and relevant companies (e.g., leaders and promising start-ups) in the shortlisted sectors. Several stakeholder consultations also took place to present the main findings of the report.

3. United Nations Sustainable Development Group (2018). Unlocking SDG Financing: Findings from Early Adopters.



The SDG Investor Map process is a comprehensive exercise, but with clear limitations. It presents promising and specific investment themes as identified through a strong methodology involving qualitative and quantitative data collection tools – it does not present investment-ready deals or projects. The IOAs are meant to serve as market intelligence to initiate/support investor and enterprise strategies and capital deployment, directing capital to where it is most needed. The IOAs are sufficiently broad to provide investors with the flexibility to choose the business models that best respond to their business competitiveness and impact case captured in the map. The objective is not to present a project pipeline. This will be a subsequent activity that the UNDP Cambodia Country Office will undertake as part of its activation plans for the Cambodia SDGs. Nonetheless, business cases and examples are also included.

Further, both the business case and impact case for IOAs are based on research and analysis, and as much as possible on existing similar business models in the country. However, the SDG Investor Map does not guarantee that these market or impact opportunities will be achieved, as that depends on the quality of implementing the investment or business model in practice. It is recommended that the SDG Impact Standards⁴ are used alongside the SDG Investor Map to help users integrate impact into the core of their investment or business practices, which will increase the likelihood that positive impacts are delivered alongside profit.

The present report does not aim to provide the same level of detail as the SDG Investor Platform, where the full findings from the SDG Investor Map are presented. Instead, it provides an overview of the different Investment Opportunity Areas for Cambodia. After a short introduction to the methodology used, the report provides first an overview of the sustainable development needs, policy priorities, and private sector outlook for Cambodia as a competitive market for investments. Subsequently, all 15 IOAs, followed by 10 identified white spaces are outlined.

4. More information on the SDG Impact Standards can be found at: <https://sdgimpact.undp.org/about-the-sdg-impact-standards.html>

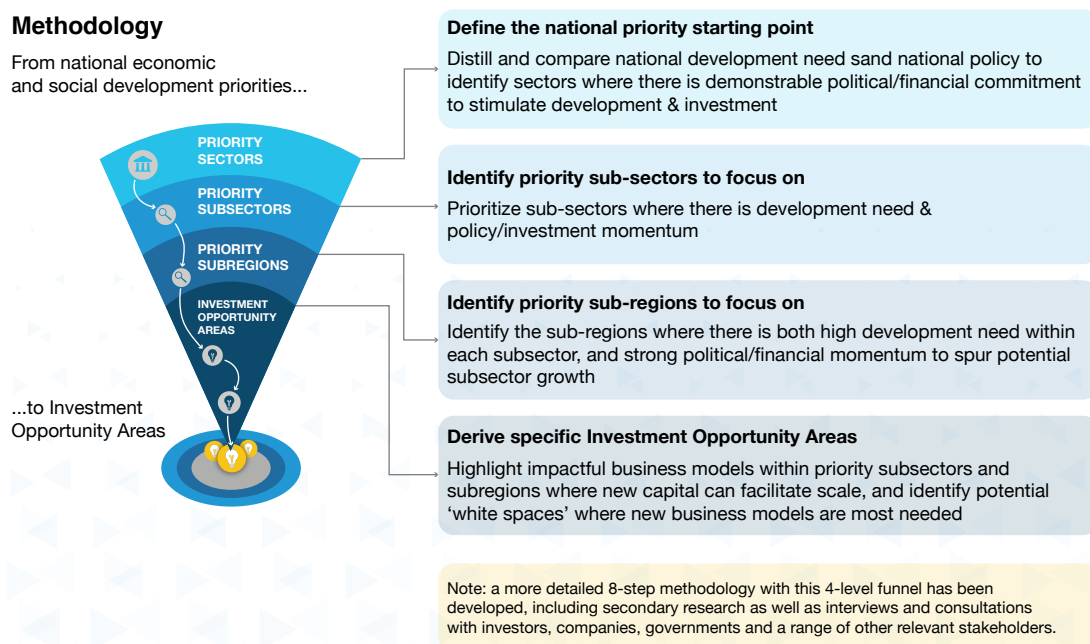
METHODOLOGY

The SDG Investor Map is a dynamic market intelligence tool that provides information on a range of market-specific and SDG-aligned investment opportunities. All SDG Investor Maps are underpinned by a standardized methodology that identifies Investment Opportunity Areas (IOAs) within national economic, environmental, and social development priorities.

The methodology follows a ‘funnel’ process that starts with taking into consideration national development needs and policy priorities, investment/financial momentum by public and private stakeholders, priority sectors, sub-sectors, and regions with the highest development needs as summarized in Figure 1.

These are backed by data and evidence gathered through research and are provided as a public good to investors and governments in order to facilitate productive and SDG-aligned capital deployment. Gender and marginalization, digitalization, and climate are some of the underpinning themes/lenses of analysis for all IOAs in the Cambodia SDG Investor Map.

Figure 1: IOA prioritization process



PRIVATE SECTOR CONTRIBUTION TO SUSTAINABLE DEVELOPMENT

- Following the end of the war in 1991 and the disintegration of the Khmer Rouge movement in 1998, Cambodia's reconstruction strategy banked extensively on the opening of its economy to free market principles, the adoption of business-friendly policies, and the attraction of foreign direct investment.
- In combination with a young and affordable workforce, the reduction of the role of the State in the economy, the adoption of the Law on Investment in 1993 (later amended in 2003 and again in 2022), membership in the World Trade Organization in 2004, and privileged market access granted by the United States and the European Union, contributed to boosting foreign direct investment which came to represent 13.5 percent of GDP in 2019. This placed Cambodia among the 15 highest rates in the world. Interestingly, local investment has been increasingly important during the second decade of the millennium, accounting for approximately 35 percent of total investment between 2016 and 2019.
- Results have been impressive with an average growth rate of 7 percent per year between 1998 and 2019, and the multiplication by six of the GDP per capita, from \$300 to \$1,643 in the same period. In 2015, the country reached the World Bank's lower-middle-income country status and officially set 2030 as the target to achieve higher-middle-income country status. In 2021, Cambodia met the United Nations least developed country graduation criteria for the first time and if it meets the criteria again in 2024, Cambodia could be recommended for graduation and may graduate as early as 2027.
- Concurrently, Cambodia has worked on reducing its dependence on official development aid by further encouraging private sector development and improving the State's revenue collection, especially through increased tax and customs earnings as part of overall reforms to expand the size of the formal economy. Overall, official development aid in relative terms decreased gradually from 6.2 percent of GNI in 2010 to 3.2 percent of GNI in 2018 and further reductions are expected⁵. This strategy is aligned with the government's objective to secure higher-middle-income country status by 2030, as a higher level of development would make the country less eligible for development aid.

5. UNDP. (2021). Cambodia's Development Finance Assessment. <https://www.undp.org/cambodia/publications/cambodias-development-finance-assessment>

- As a result, Cambodia's economic growth is now mostly driven by the private sector, especially by industries that are spurred by foreign direct investment such as the garment and tourism industries. Agriculture also remains an important contributor but is much less dynamic and efficient. Most private businesses, however, are of small or medium size, and are family-run. This vast small and medium enterprise (SME) landscape is the backbone of the economy and, according to the Ministry of Industry, Science, Technology and Innovation (MISTI), represents up to 70 percent of employment and 99.8 percent of companies, while contributing to 58 percent of GDP.
- As is the case with many emerging economies, SMEs face several challenges including limited access to finance, lack of skills, low productivity, and weak governance. They are also largely informal and therefore are both under-contributing to the official economy and more vulnerable in terms of crisis as they remain 'off the radar' and therefore cannot benefit from government rescue measures, as was the case during the COVID-19 induced recession. Recognizing these gaps and the considerable role that the SME landscape could potentially play in the economy, the government has deployed various efforts to support the sector, including the adoption of an official SME Policy, the creation of State institutions to improve access to finance and overall capacity (e.g., SME Bank, Khmer Enterprise, Credit Guarantee Cooperation of Cambodia etc.), and the promotion of micro, small, and medium enterprise digitization, among other measures.
- Further contributing to Cambodia's ability to domestically sustain economic growth and finance future development is the fledgling financial market, including a still very young stock exchange market, as well as private equity investments and impact investments in Cambodia. According to the Global Impact Investing Network (GIIN), Cambodia has benefited from a very large part of impact investment from both private impact investors (PII) and development finance institutions (DFIs) in Asia between 2007 and 2017. However, these investments are primarily focused on the financial services sector and particularly on microfinance institutions. Development finance institutions also adopted a more targeted approach and invested in SME financing to improve access to finance. Very few deals with considerably smaller ticket size went to agriculture, education, energy, or information and communications technology (ICT). According to some experts, the size of impact investment in other sectors than finance could be as low as \$30 to \$50 million between 2017 and 2020, often with small-sized deals.



- Only a handful of private impact investors are in Cambodia, while there are some impact funds that cover Cambodia from abroad. That said, many local venture capital (VC) and private equity (PE) firms, without claiming to do impact investing, are de facto impact-oriented for some of their investments as they have found opportunities in sectors that have an impact on the development of the country such as agri-business, education, e-commerce, and water and sanitation. However, the universe of domestic VC and PE firms is not that large in Cambodia, and it is not easy for start-ups and companies to raise funds locally through these channels.
- Located in the heart of the ASEAN, Cambodia is still perceived by many investors as a ‘frontier’ market that is smaller and less liquid than some neighbouring economies like Viet Nam. Challenges do exist, with VCs and PEs mostly reporting the lack of investible pipeline, lack of demonstrated success, and challenges in making investment exits (due to limitations of the local stock market), exacerbated by limited local expertise and capacity to assist with project sourcing and due diligence, making costs of investments very high.
- However, an increasing number of opportunities are available in Cambodia for both small and large investors. The competitive advantages of the country, including that it is a small-sized market, has a central location in ASEAN, is a business-friendly environment with a young and tech-savvy population, and has a proven ability to leapfrog - as has been the case with mobile penetration and digital banking - make it an ideal base to run pilot projects that can then be rolled out throughout the region. Another interesting feature is the rise of local investment through private equity and angel networks that has the potential to build stronger foundations for local investment if properly supported.
- In parallel to its contribution to economic growth, the private sector plays a critical role in ensuring that economic growth is green, inclusive, equitable and that it supports the country’s achievement of the 2030 Agenda for Sustainable Development. Cambodia has taken several initiatives to advance impact investing, such as the creation of a dedicated Inclusive Business (IB) department in the Ministry of Industry, Science, Technology and Innovation that will actively promote inclusive business initiatives. SDG-related private initiatives have also emerged due to a strong presence of social enterprises and to a dynamic and supportive ecosystem which includes incubators, training

programmes, and government and development partner initiatives to accelerate the achievement of the 2030 Agenda. However, further actions are needed to promote greater SDG-aligned investments.

- The UN estimates that achieving the SDGs globally requires overcoming a critical financing gap of \$3.3-4.5 trillion per year⁶. It recognizes that the private sector has a fundamental role to play if the world is to achieve these Goals, and to ensure economic growth and poverty reduction that does not come at the expense of environmental costs, and social disparities and inequalities.
- The business case for achieving the Global Goals is strong worldwide and it is estimated that more than 40 percent of the \$12 trillion in business opportunities associated with the SDGs globally are in Asia.⁷ Within Cambodia, the private sector is the main source of fiscal revenue that allows the government to address development challenges, including the provision of essential public goods and services. As the area of impact investing grows in the country, with the concepts of inclusiveness and sustainability progressively being shared among public and private stakeholders, these are becoming understood not only as principles, but also as opportunities.
- In response to this landscape, the SDG Investor Map offers insights into Investment Opportunity Areas in Cambodia with the aim of building a case for private sector investors to mobilize funds towards SDG-relevant sectors that have both strong financial and development impact potential.

6. United Nations Sustainable Development Group. (2018). Unlocking SDG Financing: Findings from Early Adopters.

7. Business and Sustainable Development Commission. (2017). Better Business, Better World: Sustainable Business Opportunities in Asia.



DEVELOPMENT NEEDS AND GOVERNMENT STRATEGY

The Royal Government of Cambodia's Rectangular Strategy Phase IV (RSIV) launched in 2018 prescribes a four-pronged approach to development. First, human resource development is considered the priority of the strategy at every stage and has become the first priority in the RSIII and RSIV aimed at improving education, vocational skills, competence, entrepreneurship, creativity, innovation, virtue, morality, patriotism and sense of responsibility, health and physical fitness, women's roles, and social protection. To put these priorities into action, human resource development in the 6th Legislature of the National Assembly will continue to focus on: 1) strengthening the quality of education, science, and technology sectors; 2) vocational training; 3) enhancement of public health service and nutrition; and 4) strengthening of gender equity and social protection.

Second, economic diversification is prioritized, which is necessary for establishing more economic pillars to underpin growth aimed at expanding exports to add value to the existing economic activities and maintain high growth in the medium to long-term horizon. Economic diversification focuses on four interrelated and complementary priorities: 1) improving the logistics network and enhancing transportation, energy, and digital connectivity; 2) developing key and new sources of growth; 3) supporting readiness of the digital economy and the Fourth Industrial Revolution; and 4) promoting the development of the financial and banking sector.

Third, the development of the private sector remains a priority for the Royal Government of Cambodia in its market economy development approach and plays a key role in promoting growth and socio-economic development for the country. In this spirit, private sector development will be implemented through a package of comprehensive measures covering: 1) job market development; 2) promotion of small and medium enterprises and entrepreneurship; 3) organization and implementation of public-private partnership; and 4) strengthening of competition.

Fourth, along with the promotion of high economic growth, the Royal Government of Cambodia also focuses attention on inclusive and sustainable development, particularly with regard to the Cambodia Sustainable Development Goals. In implementing this work, there are challenges such as the low growth in the agricultural sector, the limited efficiency of natural resource management, the rapid growth of urbanization with balance yet to be achieved, and the need for capacity improvements in order to respond to the impacts of climate change. All of these challenges require the government to place priority on: 1) promoting the agricultural sector and rural development; 2) ensuring sustainable management of natural resources

and culture; 3) strengthening urbanization management; and 4) ensuring environmental sustainability and readiness to respond to climate change.

The Royal Government of Cambodia has further developed a CSDG framework, which offers a strong starting point by providing baselines, milestones, and end line data, in addition to arrangements for delivery at the strategic level. The Voluntary National Review (VNR) analyzes progress to date of all CSDGs, with an in-depth review of the six prioritized SDGs (Education, Decent Work and Growth, Reduced Inequalities, Climate Action, Peace and Institutions, and SDG Partnerships).



CAMBODIA IOA PRIORITIZATION

The Voluntary National Review (VNR) 2019 reported on efforts to adapt, adopt, and now deliver the SDGs in Cambodia. A key purpose of the VNR is to track Cambodia's national performance on the CSDGs, drawing on quantitative data and qualitative reports. Figure 2 below offers a snapshot of CSDG progress at the end of 2018.

At a summary level, and although it remains early days, progress has been strong on all the Goals with a large majority (55 percent) on or above track, 9 percent below track, and 36 percent lacking sufficient data to make a judgment (Figure 2). At the Goal level, Table 1 indicates that Goal 3, Goal 5, Goal 8, Goal 12, Goal 14, and Goal 18 are CSDGs with indicators that performed below the milestone.

Figure 2:
Overall CSDG Performance⁸

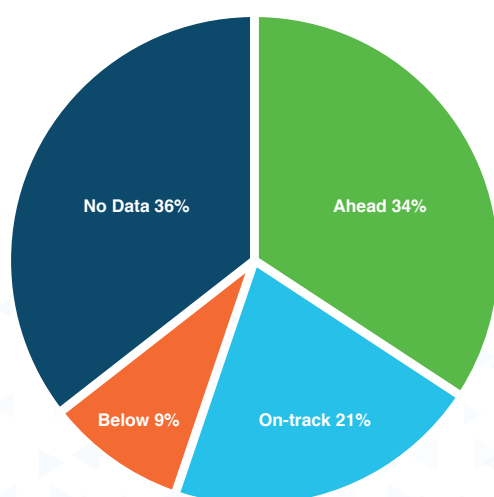


Table 1:
CSDG Performance by Goal⁹

Goal	Ahead	On-track	Below	No Data
SDG1	0	1	0	2
SDG2	1	0	0	4
SDG3	2	0	1	4
SDG4	6	0	0	1
SDG5	1	2	1	0
SDG6	1	1	0	1
SDG7	2	1	0	0
SDG8	1	1	1	2
SDG9	4	0	0	0
SDG10	0	3	0	2
SDG11	0	0	0	1
SDG12	1	0	1	0
SDG13	0	0	0	3
SDG14	0	2	2	1
SDG15	3	0	0	4
SDG16	0	1	0	2
SDG17	2	4	0	0
SDG18	2	0	1	0
All Goals	26	16	7	27

Table 2 presents data on Cambodia's performance against the SDGs. It includes the global SDG index and dashboards based on the Sustainable Development Report (SDR) 2021. It is not an official SDG monitoring tool,

but instead complements efforts conducted by national statistical offices and international organizations to collect and standardize SDG indicators. To this end, the figures presented in Table 2 could be more recent than the data summarized in Table 1 and Figure 2. According to the SDR 2021, Cambodia's index score stood at 64.5, implying that 64.5 percent of the SDGs have been achieved. Compared with other ASEAN member countries, Cambodia received the second lowest ranking.

Table 2: SDG Index Score, Index Rank, Spillover Score, Dash and Progress¹⁰

Country:	Cambodia
2021 SDG Index Score:	64.5
2021 SDG Index Rank:	102
Spillover Score (0-100):	98.8
Regions used for the SDR:	East & South Asia

Goal	Description	Dash	Progress
SDG 1	End poverty in all its forms everywhere	yellow	↑
SDG 2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture	orange	↗
SDG 3	Ensure healthy lives and promote well-being for all ages	red	↗
SDG 4	Quality education	orange	→
SDG 5	Achieve gender equality & power all women and girls	red	⇒
SDG 6	Ensure availability and sustainable management of water and sanitation for all	red	↑
SDG 7	Ensure access to affordable, reliable, sustainable and modern energy for all	orange	↗
SDG 8	Decent work and economic growth	red	↗
SDG 9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	red	↗
SDG 10	Reduced inequalities	orange	—
SDG 11	Make cities, and human settlements inclusive, safe, resilient and sustainable	orange	↗
SDG 12	Ensure sustainable consumption and production patterns	green	—
SDG 13	Climate action	green	↑



Goal	Description	Dash	Progress
SDG 14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	red	→
SDG 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss	red	— ↓ —
SDG 16	Peace, justice and strong institution	red	↗
SDG 17	Partnership for the goals	orange	— →

Note:

Goal Achievement
Challenges Remain
Significant Challenges
Major Challenges

Data gaps and time lags in official statistics highlight the need for further information gathering with relevant policymakers and other stakeholders. Robust and timely data are needed to monitor SDG progress. The pandemic has underlined the value of timely and disaggregated data to inform targeted actions and save lives. More than five years after the adoption of the SDGs, considerable gaps in official statistics remain in terms of country coverage and timeliness for many SDGs, as highlighted in Figure 1 and Table 1 above. Since one third of the indicators could not be assessed due to lack of data, the quantitative evidence alone could be misleading. In this sense, this empirical proof is important but not sufficient to conclude whether some CSDGs should be given more priority than others.

To fill this gap, following the methodology for SDG Investor Mapping on how to identify key priority sectors and sub-sectors, a comprehensive review was conducted of additional policy documents including the Cambodia Sustainable Development Framework 2030, Education Roadmap 2030, Health Strategic Development Plan 2016-2020, Cambodia Industrial Development Policy 2015-2025, National Financial Inclusion Strategy, and the Strategic Framework and Programmes for Economic Recovery in the Context of Living with Covid-19 in a New Normal 2021-2023. The identified sectors and sub-sectors were then validated with development professionals and policymakers, as well as with private investors.

Along with policy review and secondary data analysis, an extensive exercise of consultations was conducted to identify the sectors, sub-sectors, and IOAs. Validation took place with all relevant stakeholders (see Table 3 below). After the private sector consultations, 15 IOAs were identified as mature or emerging areas that have already seen investor activity and may have recorded favourable exits. These models have been scaled and gained traction and have been found to be fundamentally marketable, sufficiently specific in the realm of a broader investment area and scalable. Ten white spaces were also identified as priority areas that have the potential for deep development impact, but see low participation from the private sector due to policy or regulatory considerations. Investment areas were identified for the education, healthcare, agriculture and allied industries, infrastructure, renewable energy, and financial service sectors.

Table 3: Number of IOAs and white spaces after each prioritization step

	Policy review and secondary data analysis	Public sector and development partner consultations (33 meetings)	Private sector consultations (59 meetings)
Sectors	6	6	6
Sub-sectors	14	11	11
IOAs	31	15	15
White spaces			10

The shortlisted IOAs have been further mapped across 20 actionable data points covering broad areas of sector and sub-sector justification, business and pipeline opportunities including market risks and obstacles, impact case including outcome and impact risks, enabling ecosystem factors and target locations where such investments are the most applicable. While this report documents a snapshot of the IOAs in the following sections, detailed IOA descriptions can be accessed through the SDG Investor Platform online.

Table 4 provides an overview of the SDG Investor Map portfolio of investment opportunities.

Table 4: Cambodia SDG Investor Map - overview of IOAs






7 Sectors


15 Investment Opportunity Areas



12 Sub-sectors

10 White spaces

6+1 Sectors	11+1 Sub-sectors	15 IOAs	9+1 White spaces			
<div>Healthcare</div> <div>IOA:</div> <div>1. Digital health care service providers </div>	<div>Education</div> <div>IOA:</div> <div>1. Skill development centres offering specialized courses</div> <div>White space:</div> <div>1. Educational content creation for public and private school education (primary and secondary)</div> <div>2. Digital learning (PPP)</div> <div>3. PPP models in TVET linked to factories (particularly in machinery, automation, industry 4.0)</div>	<div>Financials</div> <div>IOA:</div> <div>1. Access to finance for small and medium enterprises (SMEs)</div> <div>2. Digital-only financing solutions with add-on services. </div> <div>3. Affordable insurance solutions (life insurance and general insurance, particularly health and agri-insurance) for low-income population </div> <div>White space:</div> <div>1. Aquaculture (transformation and fish feed)</div> <div>2. Dairy products industry</div>	<div>Agriculture and Allied Industries</div> <div>IOA:</div> <div>1. Agro-industrial processing facilities for food fortification</div> <div>2. Agriculture value chains to improve supply chain and distribution management </div> <div>3. Sustainable agriculture solutions to increase productivity for small, medium, and industrial farmers</div> <div>4. Logistic services (cold chain, storage, transport, ancillary services) to promote Cambodian exports</div> <div>White space:</div> <div>1. Aquaculture (transformation and fish feed)</div> <div>2. Dairy products industry</div>	<div>Infrastructure</div> <div>IOA:</div> <div>1. Affordable housing with financing solutions for low and middle-income families</div> <div>2. Waste to energy (WtE) solutions for a circular waste management system </div> <div>3. Piped water system (PWS) for peri-urban and rural areas in Cambodia</div> <div>White space:</div> <div>1. SME cluster park (particularly agro-parks)</div> <div>2. Recycling projects</div>	<div>Renewable Energy</div> <div>IOA:</div> <div>1. Solar photovoltaic (PV) systems for infrastructure development</div> <div>2. Clean cooking solutions to reduce usage of fossil fuels such as coal or biomass such as wood</div> <div>3. Private forest management for sustainable livelihood and income generation activities</div> <div>White space:</div> <div>1. Electric vehicles</div> <div>2. Consultancy agencies on energy efficiency</div>	<div>Tourism</div> <div>White space:</div> <div>1. Sustainable small-scale tourism projects targeting the local market</div>

 4 IOAs offer technology-based solution to ensure last-mile reach to the population, thereby reducing gender and regional disparities.

IOA 1: SKILL DEVELOPMENT CENTRES OFFERING SPECIALIZED COURSES AND TRAINING FOR PRIORITY SECTORS

BUSINESS MODEL

Invest in specialized education centers or TVET in sectors such as information technology (IT), agriculture, financial services, and infrastructure, in addition to language training (specifically English), to increase employability of the workforce and to ensure it is globally competitive.

IMPACT THESIS

Reduce the existing skill gap and equip the workforce with modern specialized skills needed to compete in the global job market.

4 QUALITY EDUCATION



8 DECENT WORK AND ECONOMIC GROWTH



10 REDUCED INEQUALITIES



5 GENDER EQUALITY



USERS / BENEFICIARIES

People: Adults and young professionals seeking specialization in technical areas, including STEM, IT, languages, finance, or soft skills and networking, will benefit from the services offered by training centres. School drop-outs can gain from vocational training to enhance their earning ability.

Marginalization: Women benefit from a reduced gender divide in IT education as equal opportunities to learn technical skills are available to all.

Corporates: Companies benefit from the availability of a local workforce that is skilled in technical jobs and can contribute to improvements in financial results.

Public sector: The economy benefits from a skilled workforce which contributes to improved quality of human capital and domestic national growth.

MARKET ENVIRONMENT

The demand for specialized education is high due to the wide skill gap in Cambodia, and national vocational training centres have not been successful in providing the required skill development services.

With a ranking of 144/189 (2019) in the Human Capital Development Index, Cambodia aims to increase its skilled workforce, which is needed to transform its economy from being labour-intensive to knowledge-based.

Skills training centers generate returns in the range of 15 to 20 percent.

RISKS

Market Risks: The needs of the market may differ from the demand from students, widening the skills gap. An inadequate number and quality of trainers makes it difficult to expand operations across regions and fulfil the demands of the job market. COVID-19 has intensified the need to deploy digital education tools in a market which lacks adequately trained teaching staff.

Impact Risks: Natural calamities or pandemics can cause various disruptions, hindering the operations and resulting in losses to centres which are unable to move operations online, especially the ones which require on-the-job technical training. Uneven distribution of resources could also result in concentration of operations in more developed regions, increasing regional disparities.

ACTORS IN THE IOA SPACE

Corporates: IT Step Academy Cambodia, Data U Academy, Australian Centre of Education (ACE), Northbridge International School Cambodia, Raffles International College (Cambodia) Limited, and NTC Training Centre.

Investors: Nord Anglia Education, Inc. and Raffles Education.

Government: Ministry of Education, Youth and Sports (MoEYS), Ministry of Labour and Vocational Training (MoLVT), and Cambodia Academy of Digital Technology (CADT).

Non-profits: Don Bosco Vocational Training Centre, Kirirom University, STEMAOC Project, Cambodian Youth's Future Organization Vocational Training Center, and Swisscontact.

FINANCIAL ENVIRONMENT

Prakas 209 extends the various tax incentives for educational establishments, providing incentives on withholding tax, VAT, minimum tax, and prepayment of tax on income. Educational establishments include kindergartens, TVET schools, primary schools, and higher education institutions.

POLICY ENVIRONMENT

Cambodia's 2030 Education Roadmap focuses on providing quality services, equity, and inclusion for early childhood, primary, and secondary education, including technical and vocational education, especially lifelong learning, for economic and social prosperity.

The National Technical Vocational Education and Training (TVET) Policy 2017-2025 aims at creating decent work and ensuring quality and high productivity of the workforce to compete regionally. It also focuses on closing the skills gap by promoting a regular flow of information between private firms and TVET institutions.

REGULATORY ENVIRONMENT

Constitution (1994).
Law on the Establishment of the Ministry of Education, Youth and Sports (1996).
Law on Education (2007).

IOA 2: DIGITAL HEALTHCARE SERVICE PROVIDERS

BUSINESS MODEL

Invest in B2B/B2C tech-based companies offering digital healthcare services, including development of an Operation Management System, telemedicine, as well as a marketplace for pharmaceuticals.

IMPACT THESIS

Improve efficiency and accessibility of the healthcare system for communities and people that need them the most.

3 GOOD HEALTH AND WELL-BEING



5 GENDER EQUALITY



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



USERS / BENEFICIARIES

People: All patients benefit from medical data systems that enable them to avoid carrying their medical records for visits to the doctor. The population benefits from accessible medical care for timely diagnosis and treatment and affordable medicines of improved quality. Marginalization: The rural population benefits from accessible healthcare solutions which enables them to avoid distant and lengthy travel, additional expenses, and a lack of reliable transportation.

Planet: The environmental burden is reduced as companies can leverage technology for expanding their market coverage, thereby reducing the use of transport facilities which emit greenhouse gases (GHG).

Corporates: Hospitals benefit from improved digitalization, better management, and increased efficiency.

Public sector: The government benefits from a reduced burden on national resources, including on the already constrained public healthcare system, and reduced inequalities resulting from improved access to good quality healthcare.

MARKET ENVIRONMENT

In 2017, the Cambodian market spent about \$1.1 billion on general healthcare and \$296 million on pharmaceutical products. However, telemedicine and pharmaceutical marketplaces are still in a nascent stage. The overall health system requires improvements in its efficiency and ability to respond to the needs of a growing and aging population.

Market volume is projected to be \$155.8 million by 2026, with digital health revenue expected to show an annual growth rate of 15.27 percent.

RISKS

Market Risks: Adoption of telemedicine in Cambodia might be slow due to a lack of trust in the quality of care offered. Most regions, especially provinces, lack skilled healthcare professionals who are trained to use specific technology. Approximately 32.4 percent of the population with tertiary education uses computers. However, smartphone and digital penetration is increasing very rapidly in Cambodia, resulting in faster adoption of technology among the younger generation of doctors.

Impact Risks: Only people with smartphones and online payment systems can afford to pay fees online on digital platforms. This limits the inclusion of and impact on the underserved and most vulnerable communities. Furthermore, while the model is proven in urban areas, external factors such as limited connectivity and digital literacy of target populations might limit the efficacy of services in more rural/remote areas.

ACTORS IN THE IOA SPACE

Corporates: Pilltech, FWA (Peth Yoeung), Meetdoctor, and Ssivix Lab.

Investors: IG Group.

Government: Ministry of Health, Ministry of Commerce (for e-commerce platforms), Ministry of Post and Telecommunications (digital), and Ministry of Education, Youth and Sports.

Multilaterals: Asian Development Bank, World Bank, United Nations Office for Project Services, and United Nations Children's Fund.

Non-profits: International Global Fund, Bill and Melinda Gates Foundation, Hope Worldwide, Clinton Health Access Initiative, and MoPoTsyo.

FINANCIAL ENVIRONMENT

Under Cambodia's New Investment Law, the health sector is eligible to receive Qualified Investment Project (QIP) incentives which include a tax holiday, minimum tax exemption, or exemption from prepayment of tax on income or export duty.

POLICY ENVIRONMENT

The Health Strategic Plan 2016-2020 outlines the framework for strengthening operations in the entire health sector. It aims to mobilize financial resources, inform fiscal allocation, and guide development assistance in the sector. It also initiates the use of telemedicine services to connect national hospitals and provincial referral hospitals to provide specialized services or manage diagnosis, treatment, and care of complicated diseases.

REGULATORY ENVIRONMENT

Article 72 of the Constitution provides that 'the health of the people shall be guaranteed. The state shall give full consideration to disease prevention and medical care' (1994).

The Law on the Management of Private Medical, Paramedical, Medical Aide Profession (2000).

IOA 3: AGRO-INDUSTRIAL PROCESSING FACILITIES FOR FOOD FORTIFICATION

BUSINESS MODEL

Invest in developing food processing chains in Cambodia to increase local value-addition and reduce exports of raw materials. Some priority agro-products include rice, cashew nuts, fruits (dried fruits or puree for fruit juices like mangoes), spices, and fish.

IMPACT THESIS

Provision of processed food products to address nutrition requirements of the population and improve income for the agricultural workforce through an increase in export volume of processed food products.

2 ZERO HUNGER



1 NO POVERTY



8 DECENT WORK AND ECONOMIC GROWTH



11 SUSTAINABLE CITIES AND COMMUNITIES



USERS / BENEFICIARIES

People: The population benefits from high quality, nutritious, and affordable agricultural products. Smallholders, semi-commercial, and commercial farmers benefit from improved productivity and income.

Marginalization: Rural communities, especially women, benefit from employment generation in processing facilities that offer them higher paying jobs.

Planet: Processing food helps in reducing wastage of agricultural produce, thereby protecting the environment from pollution caused by the disposal of agricultural waste.

Corporates: Food and beverage retailers benefit from domestic procurement of affordable food products and reduced dependence on imports. Processing companies benefit from reduced wastage and improved efficiencies. Agro-processors and exporters benefit from high export values.

Public sector: The government benefits from increased food security, leading to greater national economic stability. Higher export values also help to reduce the trade deficit of the country, which was US\$1.92 billion in 2020.

MARKET ENVIRONMENT

The agro-processing industry contributed to only 2.4 percent of Cambodia's GDP in 2018. Cambodia lacks capacity for value addition. Products are exported raw or semi-processed, while the final value addition is undertaken in Viet Nam or Thailand. Around 45 percent of post-harvest produce lost is due to lack of agro-processing. Within the sector, crop production has the largest output contribution to total national GDP at 13.0 percent.

RISKS

Market Risks: Due to poor infrastructure, logistical costs in Cambodia are uncompetitive compared to the country's neighbours. As the capital expenditure for a processing facility can be as high as \$1 million, such businesses may only be investable for those who are able to access high levels of debt financing, either locally or internationally.

Impact Risks: The high cost of electricity in rural areas, lack of qualified maintenance staff, and cost of logistics would impact the implementation of processing units close to the source of raw materials. A lack of regulation and control could also lead to exploitation of farmers, while a lack of accessible information services for farmer rights would lead to sub-optimal engagement with business models and opportunities.

ACTORS IN THE IOA SPACE

Corporates: Santana Agro Product, Kirirom Food Production, Kodo Feed Mill (Cambodia) Co., Ltd., Charoen Pokphand Cambodia Co Ltd., and CJ Cambodia Co., Ltd.

Investors: CJ Global Holdings Ltd., CPF Investment Limited, MH Ethanol Co., Ltd., Insitor, CIC, Uberis, and EMIA.

Government: Ministry of Rural Development and Ministry of Agriculture, Forestry and Fisheries.

Multilaterals: United States Agency for International Development, French Development Agency, Cambodia-Australia Agricultural Value Chain Program, and International Fund for Agricultural Development.

Non-profits: Grow Asia, Agrisud, iDE Cambodia, and People In Need.

FINANCIAL ENVIRONMENT

The Agricultural and Rural Development Bank (ARDB) and the SME Bank are providing loans to local enterprises. Qualified Investment Projects (QIPs) can benefit from a tax exemption of 40 percent and a tax holiday for three years, as well as another priority period of three years. QIPs also benefit from Special Economic Zones with more privileges.

There was a reduction in electricity tariffs for consumers in six provinces that export to Viet Nam in 2020 for agricultural SMEs and large enterprises.

POLICY ENVIRONMENT

The Master Plan for Crop Production in Cambodia 2030 aims at a transformation to a modern agricultural system capable of generating high value-added through the development of agro-industry.

The Rectangular Strategy IV highlights the need to upgrade the processing industry.

The National Cashew Nut Policy 2022 aims at reinforcing capacity to grow, store, process, package, market, distribute, and export cashew nuts, establishing Cambodia as a major producer and supplier.

The China-Cambodia Free Trade Agreement facilitates Cambodia's exports to China, especially the export of agricultural products.

REGULATORY ENVIRONMENT

The 2022 Draft Law on Food Safety including frameworks to encourage the sanitary and safe production of greater volumes of agricultural products at higher levels of quality.

IOA 4: AGRICULTURE VALUE CHAINS TO IMPROVE SUPPLY CHAIN AND DISTRIBUTION MANAGEMENT

BUSINESS MODEL

Invest in B2B digital platforms and aggregators or brick-and-mortar models offering products and services and linking producers to buyers, to improve sourcing, quality control, market linkages, and overall traceability. Invest in standalone business models offering logistics or cold-storage facilities.

IMPACT THESIS

Efficient agriculture value chains to move to an organized and streamlined supply chain which can help address the issue of post-harvest losses and dependence on imports.

2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



8 DECENT WORK AND ECONOMIC GROWTH



11 SUSTAINABLE CITIES AND COMMUNITIES



USERS / BENEFICIARIES

People: Farmers benefit from better prices for their goods and access to domestic and international markets. Consumers benefit from access to high quality goods.

Marginalization: Women benefit from increased representation in post-harvest jobs supported by improvements in supply chains.

Planet: Efficient supply chains help avoid potential food loss and waste (FLW) pollution, conserve biodiversity resources, and reduce methane/CO₂-based waste emissions.

Corporates: Wholesalers and retailers benefit from procuring better quality and consistent produce at fair prices and on a regular basis. Processing companies benefit from access to domestic and international markets with improved quality products.

Public sector: The government benefits from lower reliance on imports and improved food security systems which help to reduce environmental degradation.

MARKET ENVIRONMENT

A World Bank study from 2020 shows that the agriculture market represents \$36 billion in Cambodia, and that the agricultural value chains suffer from post-harvest inefficiencies, lack of traceability, and lack of farmer-buyer linkages.¹¹ Hence, there are large market gaps in terms of supply chains and the distribution of services and products, which need to be addressed.

RISKS

Market Risks: Agricultural value chains currently suffer from a very low structuration level, which can be a challenge when moving to an organized and streamlined supply chain. In addition, poor in-country logistics and infrastructure can cause post-harvest losses and affect profitability.

Impact Risks: Farmers often borrow money from local middlemen to expand their businesses and increase yields, which burdens them to sell their harvest at very low prices, resulting in losses. In addition, if the benefits of the model do not expand across Cambodia, it will reinforce existing regional and income disparities.

ACTORS IN THE IOA SPACE

Corporates: Azaylla Cambodia Co. Ltd., Auskhmer Import Export Co., Ltd., Khmer Agriculture Suite, Khmer Cold Chain Co. Ltd., and Amru Rice (Cambodia) Co. Ltd.

Investors: Uberis Capital Ltd., Worldbridge International (Cambodia) Ltd and United States Agency for International Development.

Government: Ministry of Rural Development, Ministry of Agriculture Forestry and Fisheries, Techo Start-up Centre (TSC), and Ministry of Economy and Finance.

Multilaterals: United States Agency for International Development.

FINANCIAL ENVIRONMENT

The New Investment Law 2021 allows for the deduction of expenses at a rate of 150 percent related to, among other things, research, development, innovation, and human resource development. The law also offers an income tax exemption for between three to nine years subject to the specific investment sector and activities.

Further, investors may be eligible for the deduction of certain expenditures, including capital depreciation and the deduction of certain significant expenses at the rate of 200 percent for a duration of nine years.

POLICY ENVIRONMENT

The Master Plan for Crop Production in Cambodia 2030 aims at a transformation to a modern agricultural system capable of generating high value-added through the development of agro-industry, agri-business, and non-farm employment.

The Recovery Plan 2020-2023 focuses on boosting agricultural productivity growth, modernizing supporting infrastructure in the supply chain of agricultural products, promoting processing of agricultural products, promoting the seed industry, and maximizing the benefits of free trade agreements.

Cambodia's Climate Change Strategic Plan 2014–2023 promotes proper agriculture technology usage.

REGULATORY ENVIRONMENT

The Sub-decree on Contract Farming (2011) defines the implementation framework for contract-based agricultural production in Cambodia.

The Law on Agricultural Cooperatives (2013) regulates the establishment, functioning, and management of agricultural cooperatives.

11. World Bank. (2020). Cambodia in the Time of COVID-19.

IOA 5: SUSTAINABLE AGRICULTURE SOLUTIONS TO INCREASE PRODUCTIVITY FOR SMALL, MEDIUM, AND INDUSTRIAL FARMERS

BUSINESS MODEL

Invest in the provision (selling or renting/leasing) of equipment and information services to increase agricultural productivity in a climate-resilient manner using modern sustainable methods of regenerative systems, irrigation, greenhouse, and solar technology for productive use and quality inputs.

IMPACT THESIS

Sustainable agriculture development to improve crop yield, farmers' income, and quality of life of rural communities, while also ensuring reduction in carbon emissions and reversal of climate change.



USERS / BENEFICIARIES

People: Farmers benefit from improved productivity and higher income. Farm labourers (including rural women) benefit by gaining technical know-how and reduced labour drudgery. The population benefits from better quality produce available domestically.

Marginalization: Women and vulnerable communities benefit from the adoption of climate-resilient and sustainable agriculture practices that may provide them with improved income streams.

Planet: The environment benefits from climate-resilient practices which result in reduced environmental strain through water savings, reduced soil pollution and degradation (by minimizing the use of fertilizers), and enhanced crop yields.

Corporates: Technology providers and agricultural equipment retailers benefit from growing interest of investors, which can promote further research and development in agricultural technology.

Public sector: The government benefits from increased agricultural productivity which helps to address challenges around food insecurity, supporting stronger sectoral contribution to the GDP, including income from exports.

MARKET ENVIRONMENT

Cambodia is highly vulnerable to climate change. It was ranked 15/182 in the Global Climate Risk Index (1999-2016)¹² and 17/180 in the World Risk Index (2019). Agriculture is the second highest emitter of greenhouse gases (36.4 percent), with rice cultivation and enteric fermentation from livestock contributing to 74 percent of agriculture emissions. Without addressing such effects, Cambodia is projected to lose around 10 percent of GDP by 2050.

Despite improvements in the agriculture sector, Cambodia suffers from low yields and productivity. The yield of wet season rice is almost twice as high in Viet Nam as it is in Cambodia (2.2 tonnes (t)/hectare (ha) compared to 4.3t/ha).

RISKS

Market Risks: The agriculture sector is dominated by MSMEs and small landholders who lack access to finance to invest in production equipment offered under sustainable farming, and thus would require additional financial assistance in the form of subsidies or loans. Significant changes in behaviour and farming practices will also be needed for the adoption of some equipment, which can affect the penetration rate of technologies.

Impact Risks: Lack of recycling channels for material waste from greenhouses, solar PV systems, and irrigation systems can give rise to newer issues of land pollution. Unavailability of formal modes of lending for farmers may also limit their ability to afford sustainable agriculture-based products and services.

ACTORS IN THE IOA SPACE

Corporates: Smart Agro, Agri- SambathKhmer Co., Ltd., Yamoto Green, SOGE, IMB, and Green Leader.

Government: Ministry of Rural Development, Ministry of Agriculture Forestry and Fisheries, and Ministry of Commerce.

Multilaterals: United States Agency for International Development, SWITCH to Solar Project, United Nations Development Programme, Swisscontact, and Conservation Agriculture and Sustainable Intensification Consortium.

FINANCIAL ENVIRONMENT

The New Investment Law allows for the deduction of expenses at a rate of 150 percent related to, among other things, research, development, innovation, and human resource development, as well as exemption of between three to nine years subject to the specific investment sector and activities.

POLICY ENVIRONMENT

The Agricultural Sector Master Plan 2030 envisages Cambodia's agriculture as a modern agriculture sector which is competitive, inclusive, resilient, and sustainable, leading to increases in farmers' income as well as the prosperity and well-being of the Cambodian people. It aims to increase competitive and inclusive agricultural growth, high quality, safe, and nutritious products, and takes into account the sustainable use of land and ensuring sustainable fisheries and forestry resource management.

REGULATORY ENVIRONMENT

The Sub-decree on Contract Farming 2011 defines the implementation framework for contract-based agricultural production in Cambodia.

The Law on Agricultural Cooperatives 2013 regulates the establishment, functioning, and management of agricultural cooperatives.

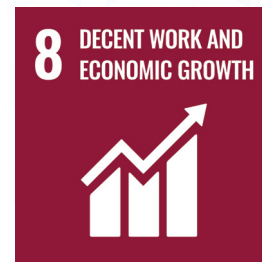
IOA 6: LOGISTICS SERVICES (COLD CHAIN, STORAGE, TRANSPORT, AND ANCILLARY SERVICES) TO PROMOTE CAMBODIAN EXPORTS

BUSINESS MODEL

Invest in B2B businesses or facilities engaged in building efficient logistics services and support infrastructure.

IMPACT THESIS

Development of logistics to reduce spoilage and enable Cambodia to expand its export income, thereby contributing to growth of the economy.



USERS / BENEFICIARIES

People: Small and mid-scale fruit and vegetable producers, cooperatives, and storage facility operators benefit from less loss due to spoilage.

Corporates: Traders, exporters, and supermarkets will benefit from the improved supply of agricultural produce (e.g., fruits, vegetables, and cereals) of consistent quality.

Marginalization: Smallholder farmers benefit from access to international markets including for farms that are operated by women.

Public sector: Cambodia will be enabled to retain the goods that it needs and to export profit-making merchandise, thereby contributing to growth in national income.

Planet: Lower loss of food products will generate less food waste, thereby reducing pollution caused by the burning of such waste.

MARKET ENVIRONMENT

Agricultural exports are linked to the quality of products and compliance with international standards. Currently, very few companies in Cambodia have the capacity to ensure that they meet international standards and there is a lack of third-party actors who can offer assistance to do so. Thus, most exports are executed through informal channels.

There is a growing need in logistics services to support the formalization of Cambodia's agri-exports.

For cold storage alone, an additional 140,000 cubic metres (cbm) must be added to Cambodia's existing cold storage capacity to meet the needs of its supply chain by 2030, whereby CAPEX costs for 1 cbm are on average around \$200.

In the case of mango exports, an estimated \$500 million is required in hot water treatment facilities only to be able to reach the quota set in the Cambodia-China trade agreement.

RISKS

Market Risks: Most agri-commodities are currently exported through informal channels, with little to no regulations. Formal export channels require a level of sophistication in agri-businesses, which currently are not adequate enough to meet international standards, as a result of an inefficient supply chain. Moreover, this area is capital intensive as a substantial amount of investment is required for setting up logistics services (e.g., storage, cold chain, and transportation). As per experts, a hot water treatment facility can cost approximately \$10 million. As the products are perishable, the cost of spoilage is also borne by the operators.

Impact Risks: If the business models do not evaluate their impact on all actors of the value chain, most of the economic benefits might be reaped by companies themselves, without such benefits passing on to smallholder farmers, including women.

ACTORS IN THE IOA SPACE

Corporates: Khmer Gold Chain Co. Ltd. (KCC).

Investors: InfraCo Asia Development Pte. Ltd. (InfraCo Asia).

Government: Ministry of Health, Ministry of Commerce, Ministry of Agriculture, Forestry and Fisheries, and Ministry of Economy and Finance.

Multilaterals: World Bank, United Nations Development Programme, Food and Agriculture Organization of the United Nations, and ARISE+.

FINANCIAL ENVIRONMENT

Currently no fiscal or other incentives exist that would facilitate investment in agricultural services.

POLICY ENVIRONMENT

The Industrial Development Policy 2015-2025 provides a master plan for transport and logistics system development with the aim of creating integrated and highly effective multi-modal transport and logistics systems to become key national economic corridors.

The Master Plan of ASEAN Connectivity 2025 aims to strengthen ASEAN competitiveness through enhanced trade routes and logistics and improve supply chain efficiency by addressing key chokepoints.

REGULATORY ENVIRONMENT

The Sub-decree on Hygiene of Food for Human Consumption established hygiene standards for food produced for human consumption.

The Law on Agricultural Cooperatives (2013) regulates the establishment, functioning, and management of agricultural cooperatives.

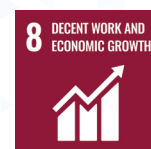
IOA 7: AFFORDABLE HOUSING WITH FINANCING SOLUTIONS FOR LOW AND MIDDLE-INCOME FAMILIES

BUSINESS MODEL

Invest in B2C models engaged in building affordable homes for low to middle-income families with a focus on sustainability. Affordability is made possible through innovation or practical location (e.g., Special Economic Zones (SEZs)), as well as with the provision of financial assistance (e.g., loans, subsidies, and tax exemptions).

IMPACT THESIS

Affordable housing solutions to ensure improved citizen well-being, reduced inequalities, and support for urban planning through expansion of projects in city outskirts.



USERS / BENEFICIARIES

People: Low and middle-income families, young individuals, and migrant workers benefit from access to affordable housing facilities close to their place of work or study.

Marginalization: Women working in factories or SEZs benefit from quality housing in close proximity to their workplaces, contributing to improvements in their productivity, retention, and safety.

Planet: The environment benefits from reduced negative impact caused by unsustainable housing construction practices which result in a higher carbon footprint.

Corporates: Retailers, schools, hospitals, and other vendors benefit as they are able to expand their operations to newly developed locations.

Public sector: Greater private sector participation in affordable housing will reduce the government's burden to bear the cost of developing such housing complexes and providing support to vulnerable sections in the form of subsidies.

MARKET ENVIRONMENT

As of 2018, around 45.1 percent of the urban population was living in slums¹³. The Royal Government of Cambodia estimates that approximately 8 million people (>44 percent) will be living in urban areas by 2030¹⁴. More than 4 million people (>27 percent) resided in urban areas as of 2020¹⁵. TCdata360 ranked the quality of Cambodia's infrastructure as 99/137 in 2017¹⁶, indicating a lack of housing, waste management, and water treatment.

Around 10 million Cambodians lack adequate housing¹⁷. Before 2030, more than 800,000 low-cost urban homes priced at under \$30,000 must be built in Cambodia to cope with urbanization and a young and growing population. To meet the growing demand of urbanization, a supply of 50,000 new affordable homes would be required each year.

RISKS

Market Risks: Feasibility of the project will depend significantly on the associated cost of land and location of the construction complex (especially in urban areas). There is a need to find innovative solutions (particularly financing schemes) to save time and money as margins in such projects are very thin. Infrastructure costs are also not negligible. The construction system (to make the houses cheaper) can be expensive. Further, the expertise on sustainable aspects is scarce.

Impact Risks: Some "affordable housing" projects might miss the initial target of low to middle-income and reach out rather to middle-income targets, as sales and consequently profits are guaranteed for higher-income segments. Furthermore, geographical concentration of affordable housing that is not adequately targeted at those that need such services the most can contribute to gentrification and increase suburban poverty.

ACTORS IN THE IOA SPACE

Corporates: Worldbridge Homes Co. Ltd. (WHC), Arakawa Co. Ltd., BUN CHES Group, Sokha Residence, Ly Brothers, and First Finance.

Investors: Straits Construction Singapore Pte. Ltd.

Government: Ministry of Land Management, Urban Planning and Construction (MLMUPC) and Council for Development of Cambodia (CDC) for PPP projects.

Multilaterals: World Bank, Asian Development Bank, United Nations Development Programme, United Nations Office for Project Services, and United Nations Habitat.

FINANCIAL ENVIRONMENT

A new stamp duty tax exemption scheme has been set up for property worth less than \$70,000 (valid until January 2021 and extended one more year).

Special rates exist for paying income tax, property tax, and VAT.

POLICY ENVIRONMENT

The New Affordable Housing Policy 2017 aims to encourage developers to focus on low-cost housing projects.

The National Housing Policy 2014 seeks to enable people throughout the country to have access to adequate housing to reside with welfare, peace, and dignity, especially for low and medium-income households and vulnerable groups.

REGULATORY ENVIRONMENT

To benefit from incentives, developers need to build at least 100 low-cost housing units priced between \$15,000 and \$30,000. Projects must contain green spaces and cooperate with financial institutions to create credit schemes with low interest rates.

13. Sachs et al. (2021). The Decade of Action for Sustainable Development Goals. Sustainable Development Report 2021. Cambridge: Cambridge University Press.

14. Hin, P. (2018). Rising Demand for Cheap Housing.

15. World Bank. (2018). Urban Population – Cambodia.

16. Business and Sustainable Development Commission. (2017). Better Business, Better World.

17. Benson, E. (2020). 4 Facts about Housing and Homelessness in Cambodia.

IOA 8: WASTE-TO-ENERGY (WTE) SOLUTIONS FOR A CIRCULAR WASTE MANAGEMENT SYSTEM

BUSINESS MODEL

Invest in B2B models engaged in scaled waste-to-energy (WtE) solutions using refuse derived fuel (RDF) or municipal solid waste (MSW) to produce energy through transformation facilities, and in utilizing farm waste or city waste to generate electricity.

IMPACT THESIS

Improvement in waste management systems to ensure a circular approach to managing waste leading to improvement in overall community well-being and positive environmental outcomes.

7 AFFORDABLE AND CLEAN ENERGY



11 SUSTAINABLE CITIES AND COMMUNITIES



3 GOOD HEALTH AND WELL-BEING



10 REDUCED INEQUALITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



USERS / BENEFICIARIES

People: The population benefits from cleaner surroundings benefitting health and overall well-being, including participation in circular waste management.

Marginalization: The health of vulnerable people such as pregnant women, babies, children, and people residing near landfills benefit from improved living conditions. Women working in waste management benefit from improved working conditions and job opportunities.

Planet: The environment benefits from reduced waste in landfills or reduced burning of waste, thereby reducing greenhouse gas emissions.

Corporates: Waste management companies benefit from growing investment in this space, contributing to their expansion and helping them participate in circular, regenerative business solutions.

Public sector: The government benefits as the responsibility for building sustainable cities is shared with the private sector and there is increased potential to meet its Nationally Determined Contribution commitments.

MARKET ENVIRONMENT

Waste management has become a top priority in Cambodia. It is estimated that in 2021, Cambodia generated over four million tonnes of waste, quadruple the one million tonnes generated nationally in 2014. Inadequacy of the waste management system further aggravates the waste crisis in Cambodia.

Waste-to-energy solutions bear the advantage of increasing waste recovery rates while providing more sustainable sources of energy. Cement factories can lower their CAPEX by using refuse derived fuel directly (waste segregation may not be required). Smaller waste-to-energy solutions can also be implemented using husks or factory waste to produce energy.

RISKS

Market Risks: There are several challenges in the supply of combustible waste to operate a waste-to-energy plant in Cambodia: (i) waste segregation at source is generally not implemented, and (ii) waste collection heavily involves informal waste pickers who sell the waste to other countries like Thailand or Viet Nam. Waste-to-energy plants also require substantial investment costs which can range from \$40 million up to several hundred million dollars, depending upon the capacity.

Impact Risks: Poorly-fed WtE facilities may emit concentrated toxins with serious potential health risks, such as dioxins/furans and heavy metals, negatively impacting people and the environment. Scaling up of businesses without adequate safety, capacity building, and income security measures for waste picker communities can also lead to further marginalization.

ACTORS IN THE IOA SPACE

Corporates/projects: KH09 Waste to Energy in Phnom Penh, KSWM Co., Ltd., MH Bio Energy Group Co., Ltd., 800 Super, CINTRI, and Global Action for Environment Awareness (GAEA).

Investors: Mizuda Waste Management Co Ltd. and SWITCH-Asia.

Others: Ashurst (world leader in WtE project implementation) and SNV Cambodia.

Government: Ministry of Environment, National Council for Sustainable Development, and Ministry of Mines and Energy.

Multilaterals: United Nations Development Programme, World Bank, Asian Development Bank, Gesellschaft für Internationale Zusammenarbeit (GIZ), and United States Agency for International Development

FINANCIAL ENVIRONMENT

The tax deferral period for most QIP electricity generation projects ranges from six to nine years.

POLICY ENVIRONMENT

The National Energy Efficiency Policy 2021-2030 aims to achieve the most efficient transformation of electricity consumption in Cambodia by creating a favourable environment for increasing investment opportunities in energy efficiency.

Cambodia's updated Nationally Determined Contribution 2020 raises important orientations, including climate change mitigation targets in the waste sector and the country's ambitious target to halve the deforestation rate by 2030.

REGULATORY ENVIRONMENT

Electricity Law (2001).
Sub-decree on Waste Management.

IOA 9: PIPED WATER SYSTEMS (PWS) FOR PERI-URBAN AND RURAL AREAS IN CAMBODIA

BUSINESS MODEL

Invest in businesses engaged in the supply and distribution of affordable and safe piped water to rural households through PWS, which cover the entire water value chain from source to consumer household. The business model can be under a PPP arrangement with the Royal Government of Cambodia, or under a license.

IMPACT THESIS

Expansion of PWS across rural and remote areas to reduce regional disparities in access to affordable and clean water.



USERS / BENEFICIARIES

People: The rural population benefits from reduced regional disparities in the supply of clean and safe water.

Marginalization: Vulnerable communities benefit from a low-cost supply of clean water, which helps to ensure their improved health and well-being. Women benefit as the burden of acquiring water for the household from far distances is reduced.

Planet: As water is supplied directly to households, schools, and other remote regions, the level of commute required for accessing water sources is reduced, thereby reducing the impact of transport pollution on the environment.

Corporates: Companies such as Khmer Water Supply Holdings (KWSH) manage rural water stations and enable them to work effectively, expanding their coverage of households.

Public sector: Improvement in water supply through PWS contributes to several infrastructure and social development-related commitments made by the government.

MARKET ENVIRONMENT

According to official estimates, around two thirds of Cambodians – up to eight million people – remain dependent on groundwater and rainwater sources, which are not treated or reliably available year-round. A further five million Cambodians do not have access to safe drinking water.

The development of piped water distribution is needed to bridge this gap. In Cambodia, this development (especially in rural areas) is led by private sector operators, rather than by public utilities. New business models are also emerging, with companies managing a portfolio of systems, and thus increasing the returns generated.

RISKS

Market Risks: The low willingness of households to connect to PWS can be a significant barrier to expansion of networks. Expansion of PWS to new regions requires significant investment flow. In addition, the majority of the rural population resides far from the networks, resulting in high transportation costs.

Impact Risks: Due to lack of support infrastructure, many people may still be required to travel long distances to access PWS. Health issues of rural communities will persist if the installed pipelines are not durable, or the equipment for water treatment is not adequate.

ACTORS IN THE IOA SPACE

Corporates: TapEffect and Khmer Water Supply Holding (KWSH).

Investors: The Pioneer Facility, Obor Capital, Insitor Seed Fund, Asian Development Bank, European Development Bank, and China Development Bank.

Government: Ministry of Industry, Science, Technology and Innovation, Ministry of Rural Development, Ministry of Water Resources and Meteorology, Department of Rural Water Supply within the Ministry of Rural Development, and Department of Potable Water Supply within the Ministry of Industry and Handicrafts.

FINANCIAL ENVIRONMENT

There are currently no fiscal or other incentives that would facilitate investment in agricultural services.

POLICY ENVIRONMENT

Relevant policy documents include the National Strategic Plan for Rural Water Supply, Sanitation and Hygiene (RWSSH) 2014-2025 and the National Strategic Development Plan 2019-2023, which presents a vision of development and objectives to reach in 2023, including for the rural and urban water supply sector.

REGULATORY ENVIRONMENT

The Water Supply and Sanitation Regulatory Law (draft) aims to encourage the participation and investment of the private sector, both domestic and foreign, in the provision of all water supply and/or sewerage services.

The Law on Water Resources Management (2007).

A range of sub-decrees also regulate operators on aspects such as licensing, tariff setting, or water quality standards.

IOA 10: SOLAR PHOTOVOLTAIC (PV) SYSTEMS FOR INFRASTRUCTURE DEVELOPMENT

BUSINESS MODEL

Construct and maintain solar systems for industrial and commercial sectors.

IMPACT THESIS

Increase the share of solar power in the domestic energy portfolio, improve access to power for Cambodians, and contribute to energy security while reducing energy-related CO2 emissions.

7 AFFORDABLE AND CLEAN ENERGY



11 SUSTAINABLE CITIES AND COMMUNITIES



13 CLIMATE ACTION



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



USERS / BENEFICIARIES

People: The population benefits from an economical and clean alternative to conventional energy sources, which provides them with an improved quality of life.

Marginalization: Access to solar power has helped reduce the amount of money villagers spent on power sources from \$7.41 per month to \$2.47 per month.

Planet: Scaling up solar would be a significant step toward a lower-carbon electricity grid to minimize air pollution and carbon emissions, as well as to cause less harm to the river ecosystem in Cambodia compared to the negative impacts of hydro power plants.

Corporates: Solar energy employment in commercial enterprises facilitates local value addition by creating more productive investment opportunities, specifically in micro enterprises, while also creating demand for skilled and semi-skilled manpower.

Public sector: An increase in the share of renewable resources in total electricity production can help meet the rising electricity demand sustainably and utilize domestic production capacity and resources to decrease the dependency on energy imports.

MARKET ENVIRONMENT

Cambodia's electrification rate is the second lowest in Southeast Asia, after Myanmar. Electricity supply is dominated by coal (41 percent) and hydropower (44 percent), while solar comprises six percent and is growing.

Solar is the cheapest way for Electricité du Cambodge to buy electricity. Low-cost electricity, widespread solar potential, and reduced usage of carbon-emitting fossil fuels contribute to the growth of solar power.

The Power Development Plan targets 2.6 gigawatts of solar installed capacity by 2040, compared to 376 megawatts in 2021.

In particular, the development of decentralized solar rooftop systems in commercial and industrial sectors bears potential, led by the interest of facilities and brands to green their energy and reduce electricity costs.

RISKS

Market Risks: Lack of building ownership and suitable roof structure can limit the ability to install solar. Inadequate incentive schemes, bureaucratic obstacles, and a severely restrictive legal framework can also limit the possibility and economic viability of solar. Initial investment costs vary with capacity and can be high since leasing agreements are hard to obtain.

Impact Risks: Lack of recycling lines for batteries might cause harm to the environment if batteries are thrown in landfills. Improper disposal of solar cells may also lead to environmental degradation. Furthermore, if the government does not secure purchasing agreements with solar power investors, operate transparent investment bidding to attract investors, and invest in upgrading energy infrastructure and battery storage, the desired scale and depth of impact to communities and the environment will be affected.

ACTORS IN THE IOA SPACE

Corporates/operators: Cleantech Solar, Khmer Solar, GreenYellow, Kamworks Solar Ltd., Solar Green Energy (Cambodia) Co., Ltd., and Okra Solar.

Investors: Climate Fund Managers (CFM) and Opes Impact Fund.

Government: Ministry of Mines and Energy, Ministry of Environment, Electricité du Cambodge, and Electricity Authority of Cambodia.

FINANCIAL ENVIRONMENT

The tax deferral period for most QIP electricity generation projects ranges from six to nine years. There is also import tax exemption for solar panels.

POLICY ENVIRONMENT

Programme for the Development of Rural Electrification of Electricité Du Cambodge provides an overview of the fund programmes for transferring the benefits resulting from the development of electricity to the population in rural areas.

The National Energy Efficiency Policy 2021-2030 aims to create a favourable environment for increasing investment opportunities in energy efficiency.

The National Strategic Plan on Green Growth 2013-2030 sets the guidelines for long-term sustainable energy development.

REGULATORY ENVIRONMENT

Regulations on general conditions for connecting solar PV generation sources to the electricity supply system of the national grid or to the electrical system of a consumer connected to the electricity supply of the national grid, issued in 2018.

Prakas No. 0040 on implementation of the plan to reduce the price of electricity for consumers and to reform the payment of electricity for consumers.

IOA 11: CLEAN COOKING SOLUTIONS TO REDUCE USAGE OF FOSSIL FUELS SUCH AS COAL OR BIOMASS SUCH AS WOOD

BUSINESS MODEL

Promote the replacement of traditional firewood stoves with improved cookstoves (including electric rice cookers) or with the use of liquefied petroleum gas (LPG) (green char-briquettes or biogas from a biodigester system), and sell induction technology.

IMPACT THESIS

Provision of clean cooking solutions to reduce air pollution and improve the quality of working conditions for cooking staff, women, and children.

7 AFFORDABLE AND CLEAN ENERGY



11 SUSTAINABLE CITIES AND COMMUNITIES



13 CLIMATE ACTION



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



3 GOOD HEALTH AND WELL-BEING



USERS / BENEFICIARIES

People: Users benefit from the usage of char-briquettes which burn longer, at about five hours, creating no sparks and significantly less smoke. Khmer Green Charcoal's premium briquettes save approximately \$60 per year (30 percent of total fuel cost), as the briquettes produce more heat and less waste than wood charcoal.

Marginalization: Low-income populations, women, and children (from vulnerable communities) benefit from the provision of renewable biogas for cooking and organic fertilizer, which offer a safe and affordable solution.

Planet: Replacing wood charcoal impacts deforestation, as the wood comes from unsustainable sources. Each tonne of char-briquettes replaces the use of around 10 mature trees (seven tonnes of dry wood), such that approximately 6,500 trees were saved by 2014.

Corporates: MSME operators/small business owners benefit from improved access to affordable renewable energy solutions which help reduce electricity/energy costs.

Public sector: The government benefits by achieving its net-zero transmission targets through the use of clean energy.

MARKET ENVIRONMENT

68.7 percent of Cambodian households still use firewood or charcoal as cooking fuel. For green char-briquettes alone, this is estimated to result in an annual demand of over 10 million tonnes of biomass briquettes.

Approximately 32 percent of Cambodians have access to a clean cooking stove.

The customer market for biomass fuel also includes industrial users. The garment sector by itself is estimated to consume 301,000 metric tonnes of firewood every year, equivalent to 3,500 hectares of deciduous forest. This represents a large opportunity for replacement with sustainable biomass fuels.

RISKS

Market Risks: Limited supply could limit the impact or cause the need to import because there is not enough locally sourced material to satisfy the demand.

Impact Risks: Due to a lack of education, affordability, and the inability to quickly scale up stove changeover, households may prefer using wood and coal, instead of switching to cleaner fuels.

ACTORS IN THE IOA SPACE

Corporates: ATEC Biodigesters International, Khmer Green Charcoal, and ACE Solar Cooking.

Investors: ENGIE Rassembleurs d'Energies Flexible FCPE (in 2019), Phitrust Asia, Clean Cooking Alliance, Foundation Ensemble, IIX Growth Fund, Spark Fund, and Ubersis Capital.

Government: Ministry of Environment, Ministry of Mines and Energy, and Ministry of Agriculture, Forestry and Fisheries.

Multilaterals: Netherlands Development Organisation, Asian Development Bank, United Nations Development Programme, and Oxfam.

Non-profits: Smoke Free Village, Initiative of SVN, Commune Committee for Women and Children, Clean Cooking Alliance, Geres, and EnergyLab Cambodia.

FINANCIAL ENVIRONMENT

The New Investment Law 2021 with an income tax exemption from three to nine years.

POLICY ENVIRONMENT

The National Energy Efficiency Policy 2021-2030 aims to achieve the most efficient transformation of electricity consumption in Cambodia by creating a favourable environment for increasing investment opportunities in energy efficiency.

The Policy on Biodigester Development in Cambodia 2016-2025 establishes a government-supported National Advisory Committee to facilitate increased support and expansion of the National Biodigester Programme (NBP) through 2025. The National Biodigester Programme was established in 2006 to build and maintain household biodigesters in Cambodia.

REGULATORY ENVIRONMENT

Sub-decree 65, May 2, 2012 aims to determine the organization and functioning of the Secretariat of the National Committee for Safe-Bio.

IOA 12: PRIVATE FOREST MANAGEMENT FOR SUSTAINABLE LIVELIHOOD AND INCOME GENERATION ACTIVITIES

BUSINESS MODEL

Invest in commercial reforestation to develop sustainable, high-value timber, teak, bamboo, and other agricultural assets in Cambodia, and in the plantation of rubber or other key tree products to expand Cambodia's export income.

IMPACT THESIS

Contribute to reforestation initiatives to protect natural resources and reduce environmental degradation.



USERS / BENEFICIARIES

People: The local population benefits from a reduction in forest crimes, which often result in their displacement or resettlement due to loss of land.

Marginalization: The indigenous population benefit from the provision of alternative employment or business opportunities (such as bamboo farming), which promise them increased income.

Planet: The environment benefits from the reduced usage of wood charcoal for cooking. Each tonne of char-briquettes replaces the use of around 10 mature trees (seven tonnes of dry wood), resulting in the saving of around 6,500 trees as of 2014.

Corporates: Sustainable businesses dealing with timber or bamboo products benefit from reduced reliance on imported goods through their full utilization of Cambodia's natural resources.

Public sector: The government benefits from reduced deforestation which helps in controlling greenhouse gas emissions and achieving net-zero transmission targets.

MARKET ENVIRONMENT

Cambodia has one of the highest rates of deforestation in the world as the economy depends heavily on wood for timber, heat, and power generation, while 80 percent of households use wood or charcoal for cooking. Cambodia lost 2.9 million hectares (ha) of forest (14 percent of its land area) from 1990 to 2010, and 1.28 million ha (3.1 million acres) of primary humid tropical forest between 2002 and 2020.

An increasing number of companies invest in commercial reforestation or agroforestry to reduce deforestation, improve sustainable management of Cambodia's forests, and support the livelihoods of local populations.

Large-scale plantation forestry income accounted for \$390 million in 2011, according to a FAO report¹⁸.

RISKS

Market Risks: Reforestation needs to be supported with subsidies to be competitive against more profitable uses of forest resources/products, such as cashew production. Concessions must be vetted, approved, and authorized by the Forestry Department of the Ministry of Agriculture, which is charged with protected area oversight.

Impact Risks: Excessive privatization of forest area may interfere with natural habitats and ecosystems that go beyond concession areas. Moreover, in the absence of adequate regulations, rural communities, as well as land area, may be exploited.

ACTORS IN THE IOA SPACE

Corporates: Grandis Timber for reforestation. Floresta Management project. For bamboo, Bambuza Global Ventures, Leopa Bamboo, and Phea Pimex Asia Forestry Investment Group Co., Ltd.

Government: Forestry Administration, under the supervision of the Ministry of Agriculture, Forestry and Fisheries, and Ministry of Economy and Finance.

Multilaterals: United Nations Development Programme, United States Agency for International Development, Food and Agriculture Organization, and EU Forest Law Enforcement Governance and Trade (FLEGT).

FINANCIAL ENVIRONMENT

Carbon credits have been sold by Cambodia for a total amount of \$11 million.

POLICY ENVIRONMENT

The National REDD+ Strategy (NRS) 2017-2022 established an inter-ministry platform for combating climate change effects through the improvement of natural resources and forest area.

The National Forest Programme 2010-2029 includes forest demarcation, classification and registration, conservation and development of forest resources, and biodiversity forest law enforcement and improving governance community forestry capacity.

Cambodia's National Environment Strategy and Action Plan 2016-2023 aims to ensure that environmental protection and sustainable natural resource management are pillars of the country's socioeconomic development.

REGULATORY ENVIRONMENT

The Forest Law of 2002 defines the framework for management, harvesting, use, development, and conservation of forests.

Sub-decree No. 131 on the specification of forest products and sub-products permitted to be exported and imported.

18. Carruthers, M. (2021). Green Charcoal Could Curb Deforestation.

IOA 13: ACCESS TO FINANCE FOR SMALL AND MEDIUM ENTERPRISES (SMES)

BUSINESS MODEL

Invest in microfinance institutions (MFIs) in Cambodia offering innovative financing solutions to SMEs, particularly in the agriculture sector.

IMPACT THESIS

Provision of affordable loans to promote growth of SMEs which would, in turn, fuel domestic economic growth, reduce unemployment by promoting enterprise growth, and support financial inclusion of last-mile businesses.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



1 NO POVERTY



8 DECENT WORK AND ECONOMIC GROWTH



10 REDUCED INEQUALITIES



5 GENDER EQUALITY



USERS / BENEFICIARIES

People: The population benefits from increased employment opportunities with the development of SMEs. SMEs absorb >1.2 million people, contributing to around 70 percent of all job creation in Cambodia.

Marginalization: Women-led SMEs benefit from innovative and tailor-made financial products that fit their needs.

Planet: With the development of financial technology, businesses can leverage technology, thereby reducing their carbon footprint and protecting the environment from degradation.

Corporates: SMEs benefit from easy access to affordable and innovative financial solutions that support their expansion. They also benefit from potential reduction in exploitation by informal sources of credit that charge high interest rates.

Public sector: Strengthening of the SME community through affordable financial solutions will result in the growth of SME exports, thereby contributing to sustainable local and national economic growth and an increase in the government's tax revenue.

MARKET ENVIRONMENT

SMEs account for 99 percent of total enterprises, and 66 percent of enterprises state that access to finance is a challenge, specifically for funding working capital requirements.

The financial sector is still failing to offer products better suited to the needs of MSMEs, especially those in the agricultural sector. A lack of collateral restricts financial access for both men and women-owned businesses.

Other challenges include high interest rates, information asymmetries, and the absence of or limited financial products tailored to women. Improving financing for MSMEs thus represents an enormous market.

RISKS

Market Risks: The risk of non-performing assets is high, as assessing creditworthiness of borrowers is difficult. With around 95 percent of SMEs not appropriately registered, they operate informally without structuration and are thus unable to provide any history of accounting and other documentation. A lack of clear regulations also makes it complicated for MSMEs to access loans.

Impact Risks: A lack of MFI institutions will increase dependency on informal finance, leading to exploitation of consumers through negative outcomes (illegal land grabbing or bonded labour). Support in terms of capacity building and the presence of adequate support infrastructure (e.g., banks, digital-infrastructure, MFI branches, and grievance redressal systems) will be required along with access to finance.

ACTORS IN THE IOA SPACE

Corporates: AMK Microfinance Institution Plc., Chamroeun Microfinance Plc. (Chamroeun), Amret, and Prasac.

Investors: The Shanghai Commercial and Savings Bank, Ltd., Agora Microfinance Partners LLP, and Rural Impulse Fund II.

Government: SME Bank, Ministry of Economy and Finance, and Ministry of Industry, Science, Technology and Innovation.

FINANCIAL ENVIRONMENT

Sub-decree No. 124 effective from October 2, 2018, aims at incentivizing SMEs in six priority sectors, ranging from agro-agricultural products to IT services.

Prakas No. 159 dated February 17, 2020 sets out guidance, conditions, and procedures to request tax incentives.

POLICY ENVIRONMENT

The Financial Sector Development Strategy 2016-2025 aims at achieving a sound, efficient, diversified, and inclusive market-based financial system.

The Recovery Plan 2020-2023 monitors and evaluates the implementation of Sub-decree 124 on Tax Incentives for Qualifying SMEs Operating in Defined Priority Sectors.

The Cambodia Digital Economy and Society Policy Framework 2021-2035 prioritizes supporting infrastructure growth including financial technology infrastructure and digital payment systems for digital transformation.

REGULATORY ENVIRONMENT

Law on negotiable instruments and payment transactions (2005).

Regulation on Corporate Governance of Banking and Financial Institutions (2008).

IOA 14: DIGITAL-ONLY FINANCING SOLUTIONS WITH ADD-ON SERVICES

BUSINESS MODEL

Facilitate the creation of digital solutions and services that provide access to loans, accounting, billing, and payments, especially for the underserved segments of the population.

IMPACT THESIS

Provision of affordable financial services to facilitate SMEs in both obtaining loans, as well as, financial management to help them formalize their businesses and access formal financial institutions.



USERS / BENEFICIARIES

People: The population benefits from increased employment opportunities with the development of SMEs. SMEs absorb >1.2 million people, contributing to around 70 percent of all job creation in Cambodia.

Marginalization: Women-led MSMEs benefit from easy access to funds, which support the growth of their businesses.

Planet: With the development of FinTech, businesses can leverage technology, thereby reducing their carbon footprint and protecting the environment from degradation.

Corporates: SMEs benefit from easy access to affordable and innovative financial solutions that support their expansion. They also benefit from a potential reduction in exploitation by informal sources of credit that charge high interest rates.

Public sector: Strengthening of the SME community through affordable financial solutions would result in growth in SME exports, resulting in sustainable local and national economic growth.

MARKET ENVIRONMENT

While access to financial services in Cambodia has grown quickly in recent years, almost one third of people do not use formal financial services. Seventy-one percent of adults have access to financial services, along with 59 percent of adults that have access through formal providers. Twenty-nine percent of adults remain excluded from access to any form of financial services due to an inability to fulfil the documentation requirements from formal institutions and the mismatch in return expectations of customers.

Financial technology and consumer-friendly digital solutions can help ensure financial inclusion and provide access to finance for the unbanked, especially unregistered MSMEs, that suffer from low formalization and improper bookkeeping.

RISKS

Market risks: The population that is currently underserved by financial services and that would require innovative digital solutions is also the one with the lowest internet access. Only 39 percent of rural households have access to the internet at home, and only 21 percent have access to the internet outside their home. Regulators (such as the Tax Department) require Khmer language to appear in accounts and invoices. Most high-quality accounting systems cannot be used in Cambodia as they do not integrate Khmer into their software.

Impact risks: While the model is proven with youth in urban areas, financial literacy and external factors such as limited connectivity and digital literacy might limit the efficacy of service in more remote areas.

ACTORS IN THE IOA SPACE

Corporates: Boost Capital (Cambodia) Co., Ltd., Banhji Pte. Ltd., Wing, Pi Pay, Delightech, and ABA Bank.

Investors: Insitor Partners, SOSV, Loyal VC, and Genuine Interest.

Government: SME Bank, Ministry of Economy and Finance, Ministry of Industry, Science, Technology and Innovation (in charge of policy implementation for SMEs), Ministry of Commerce, and National Bank of Cambodia.

Multilaterals: United Nations Economic and Social Commission for Asia and the Pacific, United Nations Development Programme, World Bank, Asian Development Bank, and United Nations Capital Development Fund.

FINANCIAL ENVIRONMENT

Sub-decree No. 124 effective from October 2, 2018 aims at incentivizing SMEs in six priority sectors, ranging from agro-agricultural products to IT services.

Prakas No. 159 dated February 17, 2020 sets out guidance, conditions, and procedures to request tax incentives

POLICY ENVIRONMENT

The Financial Sector Development Strategy 2016-2025 aims at achieving a sound, efficient, diversified, and inclusive market-based financial system.

The Recovery Plan 2020-2023 monitors and evaluates the implementation of Sub-decree 124 on Tax Incentives for Qualifying SMEs Operating in Defined Priority Sectors.

The Cambodia Digital Economy and Society Policy Framework 2021-2035 prioritizes supporting infrastructure growth including financial technology infrastructure and digital payment systems for digital transformation.

REGULATORY ENVIRONMENT

Law on Banking and Financial Institution (1999).
Law on Financial Leasing (2005).
Law and Regulations Application to Banks and Financial Institutions (2016).

IOA 15: AFFORDABLE INSURANCE SOLUTIONS (LIFE INSURANCE AND GENERAL INSURANCE, PARTICULARLY HEALTH AND AGRI-INSURANCE) FOR THE LOW-INCOME POPULATION

BUSINESS MODEL

Invest in low-cost insurance solutions targeting the low-income population (including life insurance and general insurance covering crop/weather protection), specific business lines, or micro-insurance companies.

IMPACT THESIS

Improve insurance penetration rate to mitigate the risk against financial shocks caused by unexpected events and increase financial inclusion for the underserved communities.



USERS / BENEFICIARIES

People: People benefit from established safeguards and protection against potential losses in the future. This need has further been exacerbated by COVID-19-induced uncertainties.

Corporates: Insurance companies stand to gain from a growing market base comprised of an expanding middle class with disposable income and willingness to take up financial products.

Marginalization: Farmers and other rural communities benefit from digital platforms which offer last mile connectivity for insurance benefits.

Public sector: Inclusive finance helps underbanked and underinsured customers and plays a role in sustainable local and national economic growth.

Planet: The environmental burden is reduced as companies can leverage technology with the digital transformation of insurance products.

MARKET ENVIRONMENT

The insurance concept is still new in Cambodia and is not well understood. Most Cambodians (89 percent of women and 92 percent of men) still do not have health insurance and 95 percent of adults have no insurance coverage whatsoever. Low-income families are especially vulnerable, as they have little financial cushion and can fall into indebtedness and extreme poverty very rapidly as a result of any shock (e.g., illness, death, or bad crops).

In recent years, the sector has grown strongly (35 percent annual growth over the last five years), totaling \$271.5 million. There are significant business opportunities in this space, especially if insurance products can be offered and bundled with other service offerings.

RISKS

Market Risks: This segment is very sensitive to operational costs, and particularly distribution channels, because of the very low premium. Entry costs for a new entrant in the insurance industry are high due to reserve requirements. Moreover, government regulations have a strong impact on operations and affect returns, especially for this category of low-income clients.

Impact Risks: Low insurance penetration would increase the government's burden to bear the cost of providing compensation and risk cover in case of national disasters. InsurTech platforms also require strong internet connectivity. Thus, limited accessibility for insurance coverage can restrict the improvement in quality of life of the underinsured population.

ACTORS IN THE IOA SPACE

Corporates: BIMA Cambodia, PREVOIR, Forte Insurance, Cambodia People Micro Insurance (CPMI), Cambodia Life Insurance (Camlife), Mekong Microinsurance, and Serendib Microinsurance.

Investors: Allianz X, CreditEase Fintech Investment Fund (CEFIF), and LeapFrog Investments.

Government: Ministry of Economy and Finance, National Bank of Cambodia, General Insurance Association of Cambodia, and Insurance Regulator of Cambodia.

Multilaterals: International Labour Organization, International Finance Corporation, and World Bank.

FINANCIAL ENVIRONMENT

There are no tax incentives, however it is recognized that an incentive structure would be needed to increase voluntary uptake of insurance by the population.

POLICY ENVIRONMENT

The Financial Sector Development Strategy set up a unit that is responsible for formulating policy for the insurance sector in order to ensure that the policy framework supports the industry.

The Cambodia Strategic Development Plan for Insurance Sector 2021-2030 set out a compulsory insurance system for motor vehicle and new insurance products will be promoted including micro-insurance products.

The Recovery Plan 2020-2023 promotes the implementation of crop Insurance through the PPP mechanism.

REGULATORY ENVIRONMENT

There has not been much regulation since 2014. Currently, the licenses for microinsurance operators are only valid for one year from the date of issuance, pending the approval of the sub-decree on microinsurance.

WHITE SPACE

EDUCATIONAL CONTENT CREATION FOR PUBLIC AND PRIVATE SCHOOL EDUCATION (PRIMARY AND SECONDARY)

POSSIBLE BUSINESS MODEL

Develop digital content for Learning Management System (LMS) platforms to be used for online education from K-12 or for distance learning-based training modules for skills development.

4 QUALITY EDUCATION



8 DECENT WORK AND ECONOMIC GROWTH



10 REDUCED INEQUALITIES



5 GENDER EQUALITY



MARKET OPPORTUNITY

MARKET NEEDS AND OPPORTUNITY

Cambodia ranks 144/189 (2019) in the Human Capital Development Index. Challenges in the education sector include inclusive access to education, the transition from primary to lower-secondary school, high drop-out rates at the lower secondary levels, and instilling the importance of lifelong learning. Cambodia spent just 2.2 percent of GDP on education in 2018, as compared to 4.1 percent in neighbouring Viet Nam. Household spending on education is expected to grow at a compound annual growth rate of 20 percent from 2020 to 2025.

COVID-19 has transformed the education system, thereby encouraging students and teachers to adapt to new ways of digital learning and to develop their digital literacy. Digital learning could help address regional disparities by providing affordable access to education. It is also an ideal medium for vocational or specialized learning.

To prepare itself for the Fourth Industrial Revolution and the digital economy, Cambodia aims to increase the skilled workforce needed to transform from a labour-intensive to a knowledge-based economy.

MARKET CHALLENGES

The internet penetration rate in Cambodia reached 78.8 percent of the population in 2020. Connectivity issues and inadequate infrastructure may hinder the execution of training and limit the expansion of training centres to developed regions only.

Further, an inadequate number and quality of trainers makes it difficult to expand operations across regions and fulfil the demands of the job market.

Majority of students in Cambodia lack foundational technical know-how. The success of the training course largely depends on the learner's aptitude and willingness to pay.

To ensure last-mile reach of such business models, the course fee should be affordable for the low and middle-income segment, who have the highest need for such training.

WHY IS THIS A WHITE SPACE?

Taking advantage of digital content or a technology-supported learning system such as LMS in schools can help to minimize the disruption caused to Cambodia's public and private education.

PPP models, specifically focused on offering affordable digital content solutions for primary and secondary schools, along with training centres, can be more effective than pure commercial initiatives or development aid for ensuring last-mile reach.

POLICY AND REGULATORY ENVIRONMENT

Cambodia's 2030 Education Roadmap focuses on providing quality services, equity, and inclusion for childhood, primary, and secondary education, including technical and vocational education, and especially lifelong learning, for economic and social prosperity.

Other relevant policies include the RSIV and NSDP 2019-2023, National Employment Policy (2015-25), and National Technical Vocational Education and Training Policy (2017-2025).

Although digital learning is set as a goal, the lack of incentives and subsidies for this sector is due to the fact that it is relatively new. It has started to develop as a result of COVID-19, but since schools re-opened, the government has not yet made it a priority area.

WHITE SPACE

DIGITAL LEARNING

POTENTIAL BUSINESS MODEL

Develop online platforms for digital and distance learning through public-private partnership (PPP).

Financing structure: PPP might be the best approach to target low to middle-income categories. Digital learning opportunities can already be found in the education sector, but not necessarily targeting these categories.

4 QUALITY EDUCATION



8 DECENT WORK AND ECONOMIC GROWTH



10 REDUCED INEQUALITIES



MARKET OPPORTUNITY

MARKET NEEDS AND OPPORTUNITY

The COVID-19 pandemic has been particularly disruptive to the education sector and has shown the need for students and teachers to adapt to a new way of learning and to develop their digital literacy. This is in line with the objective to accelerate the digital transformation of education in Cambodia.

Digital learning could in theory provide many benefits for the Cambodian education system, such as the opportunity to fill current education gaps by bringing quality education to students in remote areas. Access to education could be provided at a much cheaper cost and with a higher roll-out rate than traditional education, which costs around \$30 per year in school fees for primary and secondary education and goes up to \$5,400 for a master's degree at university.

Digital learning is also a useful medium for vocational training and specialized learning, as it allows people from all around the country to access courses that are adapted to their needs without any geographical inequalities.

MARKET CHALLENGES

Most of the challenges to online learning are related to access to online learning platforms, low digital competency, and inadequate technological infrastructure, as well as poor digital literacy skills. Access to internet connections is the most difficult problem. It prevents students from learning effectively, especially in the countryside and remote areas where adequate internet connection is not necessarily widespread. This affects students' abilities to follow online classes and the high cost of internet services (ranging from \$12 to \$30 per month) makes it harder for them to benefit from digital learning.

Poorer students can also face challenges due to a lack of money to recharge their phone credit, which is needed to access the internet. In addition, computer and smartphone ownership is not as prevalent in rural areas as it is in urban areas, largely due to their high costs (between \$300 and \$1000). This makes it impossible for many low-income households to afford such devices. These factors not only limit the adoption of digital learning in Cambodia, but also make this adoption highly unequal between richer students in urban areas, who have both the internet connection and the appliances needed to properly access to and follow classes, and poorer and rural students, who do not.

WHY IS THIS A WHITE SPACE?

While the need for distance learning is important, its development is still limited to urban areas and it faces significant challenges in rural areas and to reach the target category that most needs it. This is due to poor digital literacy skills as well as inadequate technological infrastructure. PPP models might be more effective than pure commercial initiatives or development aid alone. Furthermore, there are no policies directly related to the provision of funds for students to access materials, which in the case of digital learning can be expensive. In addition, regulations do not consider nor define digital learning, which makes it harder to market.

As a consequence, the business models in this space are unable to scale, as they have neither official recognition nor help from the government to implement and develop their business.

POLICY AND REGULATORY ENVIRONMENT

Cambodia's 2030 Education Roadmap focuses on providing quality services, equity, and inclusion for childhood, primary, and secondary education, including technical and vocational education, and especially for lifelong learning to promote economic and social prosperity.

Other relevant policies include the RSIV and NSDP 2019-2023, National Employment Policy (2015-2025), and National Technical Vocational Education and Training Policy (2017-2025).

Although digital learning is set as a goal, the lack of incentives and subsidies in this sector is due to the fact that the area remains new. It has started to develop as a result of the COVID-19 pandemic, but since schools have re-opened, the government has not yet made it one of its priorities.

WHITE SPACE

FACTORY-LINKED TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET) FACILITIES

POTENTIAL BUSINESS MODEL

Link PPP models in TVET to factories (particularly in machinery, automation, and Industry 4.0).

Financing structure: PPP could be very suitable for this IOA and additional opportunities may be found by developing peri-urban or rural areas.

4 QUALITY EDUCATION



8 DECENT WORK AND ECONOMIC GROWTH



MARKET OPPORTUNITY

MARKET NEEDS AND OPPORTUNITY

As of today, Cambodia's comparative advantage in the industrial sector lies mainly in its availability of cheap labour. Cambodia needs to widen the industrial basis of the country and increase value addition. The skills gap has been mentioned as one of the main challenges for investors. Skills development is seen as a top priority for the government, in addition to diversifying the skills available in the Cambodian industrial labour market and increasing the technicity of production lines in the future.

With the support of the Asian Development Bank, the TVET Sector Development Project 2015-2021 has earmarked \$42 million during its implementation.

Factory-linked TVET centres in particular could be an effective solution to improve the existing skills gap in some important industries. For brands and factories, this would ensure that workers are trained to the exact skills needed for the development of new production lines. For workers, it would allow for the centralization of their activities. Finally, for the government, such PPP models would allow for the reduction of investment costs and would thus enable wider development of such facilities.

Recently, the government recognized the importance of the private sector in skills development with its increased involvement in the development of selected sector curricula.

MARKET CHALLENGES

The quality of the TVET system in Cambodia is not currently matching the demand of the labour market. This is due to a lack of a quality assurance system, outdated training methodologies, inauthentic experience in the industry by technical trainers, as well as insufficient infrastructure, equipment choices, relevant regulations, and industry-accepted assessment systems for trainers and trainees including for the skills of migrants before and after immigration.

The private sector cannot alone support the development of such facilities, especially considering initial investment costs.

In addition, the diversification of Cambodia's industrial sector will be a rather slow process. As long as Cambodia still has some comparative advantage in terms of labour costs, the incentive for the private sector (both brands and factories) to upgrade or develop new production lines in Cambodia is likely to stay limited.

WHY IS THIS A WHITE SPACE?

The TVET system, in general, lacks efficiency as it does not necessarily focus on needs. However, the creation of sectoral PPP could help to provide more localized opportunities for both companies and workers.

TVET centres are currently not attractive to students or potential workers, but specialized PPP with factories can provide very concrete opportunities.

The potential of this white space is interesting, but for now TVET business models are not scaling because of both a lack of quality and interest.

An increased focus on skills development might provide more leverage for TVET initiatives or policies, but strong recognition cannot be expected in the short-term.

POLICY AND REGULATORY ENVIRONMENT

Cambodia's 2030 Education Roadmap focuses on providing quality services, equity, and inclusion for childhood, primary and secondary education, including technical and vocational education, especially lifelong learning, for economic and social prosperity.

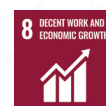
Other relevant policies include the RSIV, NSDP 2019-2023, National Employment Policy (2015-25), and National Technical Vocational Education and Training Policy (2017-2025).

WHITE SPACE

DIGITAL LEARNING

POTENTIAL BUSINESS MODEL

Companies invest in the aquaculture industry (e.g., production of input supplies, fish processing, and aggregators).



MARKET OPPORTUNITY

MARKET NEEDS AND OPPORTUNITY

With its abundant water resources, Cambodia has long been a predominant fish producer, ranking fourth in the world in terms of freshwater fish export production and first in terms of freshwater fish productivity per person. Fish is also the main source of protein in the Cambodian diet. However, hydropower dam development and climate change have had a drastic impact on Cambodia's freshwater resources, heavily impacting freshwater fish populations.

On the other hand, aquaculture production has risen steadily over the past years relative to wild capture, reaching a 34 percent share out of total fishery production in 2019 and \$1.7 billion in profit. More than 46,000 Cambodian households breed fish.

As a result, aquaculture is developing rapidly to compensate for the loss in freshwater fishery production. The government has set a 20 percent target growth rate for aquaculture and there are many opportunities to develop the sector, especially in terms of input supplies, hatcheries and nurseries, and fish processing.

MARKET CHALLENGES

Freshwater and marine aquaculture production reached 380,000 metric tonnes in 2019, which shows that the sector remains at an early stage.

The whole value chain remains largely disorganized and fragmented, impeded by logistics problems (e.g., cold storage and transport). Producers suffer from a lack of technical knowledge on raising practices and the high cost of inputs, as they are mostly imported. Prices are also highly volatile, as they are influenced greatly by imports, although the government has been trying to cap the imports of some fish species to limit price fluctuations.

The lack of a market for local products due to an influx of fish from Viet Nam and the lack of control over sources and quality, with many fish species imported uncontrolled, is also an issue. As is the case for numerous markets in Cambodia, the high production costs, such as electricity, are a further challenge.

In addition, at a national level, there is a lack of skilled human resources able to support the development of the sector. There is only one master's degree in aquaculture in Cambodia, with around 30 students graduating nationally per year.

WHY IS THIS A WHITE SPACE?

Companies like Vitamar have identified the significant potential of aquaculture in Cambodia, but progress has been slow.

The very sizeable project Capfish, financed by the European Union in collaboration with UNIDO, is strengthening the ecosystem at several levels and additional developments can be expected in the future.

As it remains early stage, there were no dedicated policies for aquaculture before 2016, and policies require time to be implemented.

Despite the market growing year-on-year, some important issues need to be addressed, such as cold storage which is not developed in Cambodia, and issues linked to transportation, especially refrigerated transport which is almost nonexistent in Cambodia. Lack of expertise is an additional reason that this sector is classified as a white space.

POLICY AND REGULATORY ENVIRONMENT

The National Strategic Plan for Aquaculture Development 2016-2030 sets an annual growth target of 20 percent.

WHITE SPACE

DEVELOPMENT OF THE DAIRY INDUSTRY

POTENTIAL BUSINESS MODEL

Companies develop the local dairy industry including farms, supermarkets, and processing and cold storage facilities.



MARKET OPPORTUNITY

MARKET NEEDS AND OPPORTUNITY

The dairy industry in Cambodia remains widely underdeveloped, consisting of only three dairy farms that produce around 10,000 litres of fresh milk each day. The demand, in comparison, reaches around 25,000 litres each day. It is estimated that 95 percent of dairy products are still imported and focus mainly on long-conservation products (pasteurized or UHT). The demand has been growing in recent years and with \$56.3 million in imported dairy in Cambodia in 2020, there are opportunities to develop the local dairy industry to substitute imports.

Kirisu Farm is the first local dairy farm that has invested substantially both by importing cows from abroad and also in the latest technologies to produce high-quality fresh milk and associated products.

MARKET CHALLENGES

As Cambodia's dairy industry is relatively early stage, developing it will be very challenging, as for the most part, neither the infrastructure nor the farming skills needed are currently present in-country in terms of both production and processing. As such, significant investment costs will be needed to develop the industry.

In addition, the development of a wider dairy supply chain will require sufficient access to cold storage infrastructure, which currently is not the case in Cambodia. For this reason, most of the milk is sold in the capital not in rural areas because of the need for refrigeration.

The cost of electricity also remains a challenge in Cambodia. To be able to cover their operational costs, companies need to produce enough milk. For example, in 2016 Techo Sen Russey Treb Milk could produce only 200 litres per day, which was not enough to cover the cost of electricity.

WHY IS THIS A WHITE SPACE?

There is potential in this space. The consumption of milk per person is currently only three to six litres per year. The question of how to make better quality products affordable for a larger part of the population (particularly in rural areas) is, however, an issue. Raising awareness about healthier habits while also convincing the population to switch to local alternatives can take time. Lactose intolerance is also one particularity that limits the market, as it is often present in people of East Asian heritage.

The almost non-existent cold supply chain in Cambodia, especially for cold storage, is one of the major issues that makes this industry a white space, as it limits the consumption of dairy products in rural areas. As for all industries, the cost of electricity in Cambodia being the highest in the region is also a significant issue at \$0.1470 per kWh for medium-sized enterprises. The government does not currently have policies in place to make it more accessible.

POLICY AND REGULATORY ENVIRONMENT

The Law on the Management of Quality and Safety of Products and Services (2012) regulates quality norms for products including dairy.

Cambodia's Ministry of Planning and Investment has granted investment licenses for dairy companies such as Vietnam Dairy Products (Vinamilk) to build dairy product processing factories.

Incentives and subsidies are lacking since they are the same as those needed for other industries and are related to the cost of electricity and the lack of cold storage infrastructure outside of the main cities.

WHITE SPACE

SME CLUSTER PARKS

POTENTIAL BUSINESS MODEL

Create B2B cluster parks, and especially agro-parks, aggregating SMEs in the same sector in one location to provide access to services and tax incentives, similar to a Special Economic Zone.

Financing structure: PPP would be welcome to allow for greater sustainability in existing business models.



MARKET OPPORTUNITY

MARKET NEEDS AND OPPORTUNITY

Cambodia suffers from many gaps in terms of logistics and infrastructure. Its overall infrastructure quality was ranked 99 out of 137 countries in 2017, according to TCdata360. This affects many sectors of the economy, impeding efficiency, productivity, and overall competitiveness, especially in the agriculture sector in which a lack of logistics services has a very real impact on losses. SMEs are all the more impacted as they do not have the investment capacity to internalize logistics the way larger companies do.

A solution to support SMEs, especially in the agriculture sector, to access improved logistics services and infrastructure, is through the creation of sector-specific SME clusters, focusing on one sector and providing services all throughout the value chain from processing and logistics, all the way to export. By creating a centralized ecosystem of appropriate facilities, services, infrastructure, and incentives, these clusters help support SMEs develop their activities through improved efficiency and cost-effectiveness, while also being able to reach higher standards and export markets.

MARKET CHALLENGES

As WorldBridge is currently finishing its first SME cluster in Takmao, and Chinese investors are constructing the first Agri-SEZ, the total number of such initiatives is likely to stay limited. Indeed, the creation of such SME or agri-cluster parks require considerable investment, as well as government buy-in. Cost of land and logistics costs are important to consider. The need also remains limited considering the size of Cambodia's economy.

Although the WorldBridge Industry 4.0 model provides integrated and innovative solutions to the problems faced by SMEs, such a business model in Cambodia remains unproven as of today. Whether such SME cluster parks can attract SMEs is still undetermined, as the cost of renting and services makes them out of reach for smaller and unsophisticated SMEs.

WHY IS THIS A WHITE SPACE?

In theory, SME cluster parks would be very beneficial to the economy, by increasing efficiency, providing more opportunities to SMEs by creating a virtuous ecosystem, and allowing Cambodia to produce more value-added products.

Unfortunately, a simple business model involving only rental fees for Cambodian SMEs would likely provide limited return. More efforts from the government to support the private sector through concessional financing or PPP is essential to see the emergence of sustainable and inclusive SME cluster parks.

WorldBridge aimed at creating a total of 20 clusters throughout Cambodia, each located in sector-specific locations, where SMEs naturally congregate due to the abundance of raw materials. The business model is complicated to scale as Cambodia's economy is not yet large enough to sustain multiple SME clusters, the cost to create such clusters is very high, and the lack of a clear decree or law on SME clusters also presents a challenge.

POLICY AND REGULATORY ENVIRONMENT

A draft SME cluster sub-decree is under preparation by the Ministry of Industry, Science, Technology and Innovation. The Cambodia Industrial Development Policy 2016-2025 is also relevant.

WorldBridge's SME clusters have been granted QSIP (Qualified Special Investment Project) status for SMEs, such that SMEs get tax exemptions, as opposed to SEZs that have only QIP (Qualified Investment Project) status, meaning that only investors benefit from tax exemptions and mostly for very large investments of \$500,000 to 1 million and above.

WHITE SPACE

DEVELOPMENT OF RECYCLING/UPCYCLING PROJECTS

POTENTIAL BUSINESS MODEL

Companies set up recycling plants, especially for plastic waste, textile waste, and e-waste.

Financing structure: PPP may be particularly suitable for this kind of activity.



MARKET OPPORTUNITY

MARKET NEEDS AND OPPORTUNITY

Waste management is a top priority in Cambodia. It is estimated that in 2021 Cambodia generated over four million tonnes of waste, quadruple the one million tonnes generated nationally in 2014. Rates of waste generation grew exponentially due to several factors including rapid population growth, rising incomes, and increasing consumption levels.

Between 70 and 80 percent of waste ends up in landfills and another 20 percent as litter or pollution on the streets or in waterways. As such, less than 10 percent of all the waste produced in the country is recycled at present.

With six additional modern landfills planned to be opened in 2022, the rapidly growing rates of waste generation call for improved waste recovery and waste recycling.

Several projects have been initiated, especially to tackle plastic waste, textile waste, and e-waste.

MARKET CHALLENGES

Presently, it seems that Cambodia's waste management is too early stage for any large-scale waste recycling projects.

Waste segregation is neither done at source, nor is waste collected separately (even if it was segregated at source). Outside of urban areas, waste collection is barely implemented at all, and waste is mostly burned at source by each household. In addition, the collection of valuable recyclable waste is done by informal waste pickers and sold to Viet Nam and Thailand.

Some initiatives have managed to create recycling channels, but they rely heavily on individual will-power (for example, each household has to bring their recyclable waste to a specific location, sometimes far away from their home).

Creating larger-scale recycling projects would require the reorganization of the whole waste management chain, which can hardly be done in an unregulated environment like that of Cambodia, which prevents private companies from trying to develop projects in this area.

WHY IS THIS A WHITE SPACE?

The economics of recycling face a number of constraints in Cambodia and return is difficult to achieve for large-scale waste recycling projects.

In the future, with strong political will, more initiatives could nonetheless happen. In particular, there is a need to support smaller initiatives in upcycling to transform plastic into building materials or replace plastic with more environmentally-friendly initiatives by using e-waste.

Several individual initiatives can be seen in this regard and UNDP Cambodia has been very active in circular economy projects. Regarding policies, most of them are outdated from the 2000s, or are not yet developed and still in the draft stage, making it hard to develop this market.

The waste management chain does not work properly, making it complicated for businesses to grow and develop.

POLICY AND REGULATORY ENVIRONMENT

The government has started identifying improved waste management as a key priority, for example in the National Circular Economy Strategy and Action Plan 2021 and in the National Sustainable Consumption and Production (SCP) Roadmap (still in the draft stage).

Other relevant policies include the Sub-decree on Waste Management (2015), Guideline on Solid Waste Management at Factories, Enterprises and Companies (2003), and Sub-decree No. 446 on the Organization and Function of the Department of Hazardous Substance Management (2015).

WHITE SPACE

ELECTRIC VEHICLES

POTENTIAL BUSINESS MODEL

Set up or invest in companies supplying electric vehicles and/or managing charging stations.

Financing structure: PPP could also be a suitable option to develop this sector.

7 AFFORDABLE AND CLEAN ENERGY



11 SUSTAINABLE CITIES AND COMMUNITIES



13 CLIMATE ACTION



MARKET OPPORTUNITY

MARKET NEEDS AND OPPORTUNITY

Vehicle ownership is progressing rapidly in Cambodia, with 15 percent annual growth in the total number of vehicles between 2007 and 2017. Over 80 percent of the vehicles are secondhand, often old and inefficient, and not equipped with pollutant mitigation technology.

Therefore, greenhouse gas emissions from the transport sector have been rising in line with the increasing number of vehicles and in the energy sector, transport is the largest contributor to Cambodia's CO2 emissions, representing 36 percent of Cambodia's total greenhouse gas emissions.

Recently, the Cambodian government has been aggressively pushing for electric vehicles (EV) to mitigate the emissions of the transport sector and urban air pollution. As such, the EV sector, if still early stage, is expected to evolve extremely rapidly.

MARKET CHALLENGES

The EV sector remains highly early stage now, and it is estimated that only 4.6 percent of total vehicles sold in 2020 were electric.

Although a few charging stations are in place or will be installed soon, there are far from enough stations to allow for a developed network that consumers feel confident relying on, especially outside of Phnom Penh. As such, significant investments will be needed before the sector is able to take off.

In addition, the EV sector is currently relatively unregulated, and the government still needs to develop regulations to create an enabling environment for the private sector to comfortably invest.

The cost of electricity is also a huge challenge, as the prices are the highest in the region at around \$0.17 per kWh on average.

WHY IS THIS A WHITE SPACE?

According to all respondents, it is believed that the sector can grow rapidly and soon because there is demonstrated buy-in from the government to move forward and good momentum from various stakeholders working on the topic. UNDP, for example, is supporting the Ministry of Public Works and Transport in creating a roadmap for EV charging stations, while the World Bank will be working with the Ministry of Mines and Energy on a similar EV roadmap and strategy. EnergyLab and GGGI are also strongly advocating for EV and the private sector is interested in switching part of their fleets to EVs (e.g., DHL and Tada). There are already some EV providers in Cambodia such as Voltra, Okiya, and Go2 bikes.

The business models are slow to scale as the development of the infrastructure is limited to Phnom Penh and some other cities such as Siem Reap. This makes the use of electric vehicles only possible inside the cities.

Furthermore, the slow development of policies makes it more complicated for businesses to implement and the cost of electricity is, as always in Cambodia, still an issue.

POLICY AND REGULATORY ENVIRONMENT

The diffusion of e-mobility is one the main strategies of the government, as described in the Long-Term Strategy for Carbon Neutrality in which the government has declared the objective to have 70 percent of motorcycles and 40 percent of cars and urban buses as electric vehicles by 2050.

A policy to promote cleaner vehicles is also currently under discussion. In 2019, the National Council for Sustainable Development established an inter-ministerial working group to develop a vehicle tax policy aimed at establishing a vehicle tax for imported vehicles and promoting cleaner vehicles.

WHITE SPACE

ENERGY EFFICIENCY IN THE COMMERCIAL AND INDUSTRIAL SECTOR

POTENTIAL BUSINESS MODEL

Set up or invest in consulting companies and simplified energy service company (ESCO) models to support the uptake of energy efficiency in the commercial and industrial sectors.



MARKET OPPORTUNITY

MARKET NEEDS AND OPPORTUNITY

It has long been recognized that, due to the slow uptake of emissions-free energy generation technology, a significant share of international climate change mitigation efforts should focus on reducing energy demand. This is especially the case for Cambodia, where solar is highly limited due to the current regulations.

The government itself is putting a high priority on energy efficiency and the latest Power Development Plan and National Energy Efficiency Policy set a national target for the reduction of total energy consumption of at least 19 percent by 2030 in relation to a business-as-usual (BAU) scenario.

The commercial and industrial sectors present especially good targets for energy efficiency improvements, as they are expected to represent the highest share of greenhouse gas emissions by 2030. Plus, with energy costs being significant in Cambodia, improving energy efficiency would also benefit the productivity of these sectors.

To support the development of energy efficiency in the commercial and industrial sectors, there is a need for consulting companies providing advisory services and energy audits, as well as simplified ESCO models.

MARKET CHALLENGES

Still, the energy efficiency sector remains early stage. Firms generally do not have deep experience in energy efficiency projects, and energy efficiency appears to be a subsequent or irrelevant aspect for end-users when purchasing or replacing equipment. In addition, company owners are neither willing nor ready yet to invest upfront in energy efficiency improvements and technologies. This is especially the case in the industrial sectors, as factories usually operate with very low profit margins.

Apart from these demand-side constraints, there are supply-side constraints as there is a lack of local companies able to supply the type of advisory services needed, but also a lack of companies supplying energy efficiency technologies locally. Most of such technologies have to be imported.

Financing mechanisms for energy efficiency improvements remain limited as well, contributing to the slow uptake of energy efficiency despite government targets.

WHY IS THIS A WHITE SPACE?

Although it is very early stage, there is an increasing interest in energy efficiency initiatives and the carbon neutral objective by 2050 will increase opportunities for companies who can provide advice to reach this objective. The carbon neutral objective will be an even bigger concern for international companies such as big brands producing in Cambodia with stricter implementation.

A few companies have started providing services in the energy efficiency sector, including Sevea, Green Move Consulting, and BEE Inc.. Technology providers including ATS, Lotus Green Team, Comin Khmere, and VRK Corporation might also develop these types of business.

Donors such as GIZ, ADB, or the European Union also have some programmes focusing on energy efficiency.

As there are no precedents and no financial data, it is complicated for companies to scale or even to try to develop a business in this area. The lack of national obligation related to energy efficiency through policies also makes this area complicated.

POLICY AND REGULATORY ENVIRONMENT

The National Energy Efficiency Policy (to be published in 2022) sets a target for the reduction of energy consumption in five sectors (industrial, residential, commercial, public services, and transport).

The Power Development Plan 2021-2040 sets more global targets and roadmaps for the development of the energy sector.

WHITE SPACE

SUSTAINABLE SMALL-SCALE TOURISM PROJECTS TARGETING THE DOMESTIC MARKET

POTENTIAL BUSINESS MODEL

Invest in new and high-value services or projects in the sustainable tourism sector, targeting the domestic market.

8 DECENT WORK AND
ECONOMIC GROWTH



9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



13 CLIMATE
ACTION



MARKET OPPORTUNITY

MARKET NEEDS AND OPPORTUNITY

Tourism is a key contributor to the Cambodian economy as a cross-cutting economic activity. Investing in tourism can lead to a wider economic and social recovery, especially in the context of post-COVID-19 by creating employment. However, there is a need to develop new and high-value services and experiences, reflecting the new priorities and trends of the industry: community-centric, proximity based, and highlighting the importance of green and sustainable projects.

The success of ecotourism sites for locals, ecolodges, glamping, outdoor activities, and the rise of domestic tourism reflects these trends.

Cambodia has great natural sites for ecotourism. The sector is important as it can significantly benefit local communities and preserve the environment. Since the onset of COVID-19, the ecotourism industry has benefitted from renewed interest from local visitors. However, alternative models need to be identified to adapt to this visitor category, which is different from what is already targeted to international tourists.

MARKET CHALLENGES

The ecotourism industry in Cambodia, as it was known before, is struggling to survive. It has virtually no international visitors. Confidence in the ecotourism industry is weak and investment opportunities are limited.

Working with local communities to create more than low quality jobs and higher-stakes participation in ecotourism is a long-term investment with limited guarantee of success and few, if any, existing success stories in Cambodia.

Infrastructure connecting high potential areas with urban centres is still limited, with long and difficult journeys discouraging travelers.

The perception of what constitutes sustainable development depends on the perspective taken. The interests of stakeholders might not be well aligned. Questions to consider include how to mitigate the risk of increased visitor numbers with environmental needs and how to make these niche projects financially viable, environmentally sustainable, and able to target the domestic market.

WHY IS THIS A WHITE SPACE?

Infrastructure is not in place yet and is very much needed to build a more resilient tourism industry. The government needs to invest heavily in infrastructure, road development, and waste management to provide the necessary foundations for ecotourism and sustainable tourism to scale and take-off.

Small initiatives have flourished, including luxury projects, with mixed results due to COVID-19. However, benefits to the local communities are still uncertain, which is fundamental to sustainable tourism. Community engagement is also necessary.



CONCLUSION

The SDG Investor Map for Cambodia was developed based on the country's national priorities, following a set of standard actions to: (i) define the national priorities; (ii) identify critical sub-sectors to focus on; and (iii) identify priority sub-regions and derive Investment Opportunity Areas (IOAs). In addition, relevant issues related to gender and marginalization, impact on climate and role of digital modes in resolving accessibility and affordability related challenges were mapped for each sector, sub-sector, and IOA as cross-cutting issues and are integrated into the SDG Investor Map. This aims to offer the private sector a holistic view of possible opportunities at the intersection of commercial viability and impact and to help them drive the design or co-design of their business plans using evidence based market intelligence.

Further, the analysis offered through the Cambodia SDG Investor Map can contribute to co-designing bankable projects that link Cambodia's Integrated National Financing Facility to priority sustainable development areas. The SDG Investor Map seeks to encourage all investors, both those within and outside of Cambodia, to engage with the people and processes driving investment opportunities on the ground in order to realize their full impact and financial potential.

Next Steps

The Cambodia SDG Investor Map will be integrated into the UN Global SDG Investment Platform, which will increase global investor outreach. Key UNDP recommendations for the future include the hosting of an annual public-private dialogue forum to review progress on the Investment Opportunity Areas and to stimulate further action, the facilitation of an exchange of best practices, and policy development for the replication and implementation of successful business models and innovative financing mechanisms.

As Cambodia continues its efforts to “build back better”, government partners, investors, and concerned citizens alike are invited to continue discussions and engagement in sustainable investment opportunities. UNDP Cambodia will endeavour to further drive dialogue and action between policymakers and investors.

PROJECT COLLABORATORS

UNDP SDG Impact

SDG Impact is a UNDP flagship initiative, working to accelerate private sector contributions towards sustainability and the achievement of the Sustainable Development Goals (SDGs) by 2030. Its aim is to make it easier for organizations to place sustainability, the SDGs, and managing for impact at the core of business and investment purpose, how value is created, and how capital is allocated. Good for people and planet. Good for business. To achieve these aims, SDG Impact is developing concrete, implementable solutions that address underlying long-term systemic issues and gives markets what they are looking for now. This includes internal management standards, assurance, education, training and advisory services to enable organizations to translate their positive sustainability and impact intentions and commitments into decisions, actions and results, setting the gold standard for impact management practice with the SDG Impact Seal. It is also generating country-level data and insights about SDG-enabling investment opportunity areas and business models to make it easier for organizations to identify sectors, themes, business models with the highest impact potential and direct capital to where it's needed most – closing the SDG financing gap and achieving the SDGs.

Centre for Impact Investing and Practices

The Centre for Impact Investing and Practices (CIIP) fosters impact investing and practices in Asia and beyond. Based in Singapore, CIIP was established in 2022 as a non-profit entity by Temasek Trust, a steward of philanthropic endowments and gifts. CIIP believes that sustainable companies are those who pursue social and environmental impact as avidly as they pursue market share and shareholder value. By striving to generate positive and measurable social and environmental returns alongside a financial return, both impact investors and companies can achieve returns with purpose. CIIP's approach is anchored on fostering shared knowledge, building a connected community, and catalyzing collective positive actions. We work with regional and global stakeholders to build knowledge assets and enhance capabilities, champion industry standards in impact investing and management practices, and convene stakeholders to bring about positive action in impact investing. CIIP is SDG Impact's anchor partner for Asia. Through this partnership, investors and businesses in Asia are provided with clarity, insights, and tools that support their contributions towards achieving the SDGs.



Joint SDG Fund

The SDG Investor Map was funded by the Joint SDG Fund, which is an innovative UN financial instrument to incentivize transformative policy shifts and stimulate the strategic investments required to get the world back on track to meet the SDGs. To date it has funded 200 joint programmes focused on integrated social protection or SDG finance. It has stimulated over 1,000 partnerships working together alongside the UN to support the SDGs, and has tested over 300 innovative solutions globally to accelerate the 2030 Agenda.

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ANNEX 1: SUSTAINABILITY ACCOUNTING STANDARDS BOARD (SASB) TAXONOMY

EDUCATION / SKILLS DEVELOPMENT

Education Financing, Education Technology, Formal Education

CONSUMER GOODS

Apparel, Accessories and Footwear, Appliance Manufacturing, Building Products and Furnishing, E-commerce, Household and Personal Products, Retailers and Distributors, Toys, Sporting Goods

FOOD AND BEVERAGES

Agricultural Products, Alcoholic Beverages, Food Retailers, Beverages, Processed Foods, Restaurants, Tobacco

RESOURCE TRANSFORMATION

Aerospace and Defense, Chemicals, Containers and Packaging, Electrical Equipment, Industrial Machinery and Goods

EXTRACTIVES AND MINERALS PROCESSING

Coal Operations, Construction Materials, Iron and Steel Producers, Metals and Mining, Oil and Gas (Exploration and Production, Midstream, Refining and Marketing, Services)

HEALTHCARE

Biotechnology and Pharmaceuticals, Drug Retailers, Healthcare Delivery, Healthcare Distributors, Managed Care, Medical Equipment and Supplies

SERVICES

Advertising and Marketing, Casino and Gaming, Education, Hotels and Lodging, Leisure Facilities, Media and Entertainment, Professional and Commercial Services

FINANCIALS

Asset Management and Custody Activities, Commercial Banks, Consumer Finance, Insurance, Investment Banking and Brokerage, Mortgage Finance, Security and Commodity Exchanges

INFRASTRUCTURE

Electric Utilities and Power Generators, Engineering and Construction Services, Gas Utilities and Distributors, Home Building, Real Estate, Water Management, Water Utilities and Services



TECHNOLOGY AND COMMUNICATIONS

Electronic Manufacturing Services and Original Design Manufacturing, Hardware, Internet Media and Services, Semiconductors, Software and IT Services, Telecommunication Services

RENEWABLE RESOURCES AND ALTERNATIVE ENERGY

Biofuels, Forestry Management, Fuel Cells and Industrial Batteries, Pulp and Paper Products, Solar Technology and Project Developers, Wind Technology and Project Developers

TRANSPORTATION

Air Freight and Logistics, Airlines, Auto Parts, Automobiles, Car Rental and Leasing, Cruise Lines, Marine Transportation, Rail Transportation, Road Transportation



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