

# INNOVATIONS FOR SHARED PROSPERITY IN CAMBODIA



2019 ASEAN Young Leaders Programme

**GIFT** GLOBAL  
INSTITUTE  
FOR TOMORROW.

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# Executive Summary (1/3)

Cambodia has experienced impressive economic growth and development following the end of political conflict in 1979. Years of unbalanced economic growth, however, has resulted in unsustainable demands on resources and deep environmental and social costs. Increased demand for a high standard of living and unfettered development will add pressure to already-constrained resources.

*Ecological Civilisation* is defined as an approach to development that leverages technology and economic and planning instruments to provide a quality living standard within planetary and environmental boundaries to protect social nets and deliver shared prosperity. It can be the model Cambodia aspires to be as the country simultaneously strives to be an upper-middle-income country by 2030. Relevant, timely and practical, it can provide the basis for a development model throughout ASEAN.

## The Model of Innovation

This report takes a different approach to understanding the role of innovation and technology as an effective means to address pressing social and environmental challenges. Using the vision of **Ecological Civilisation** as a starting point, it proposes Guiding Principles for the country's future development, supported by actionable Targets, each with measurable Indicators.

These targets and indicators drive the development of original ideas for social, policy and technological innovations that address the country's core challenges and improve quality of life whilst ensuring inter-generational equity.

Instead of starting from commercial "painpoints", this model begins with a Vision and subsequently identifies social and environmental issues as a stimulus for innovation.






The following pages summarise the overarching vision for Cambodia, the guiding principles and targets for five key focus areas: **Livelihoods, Education and Skills Development; Agriculture and Rural Revitalisation; Environment & Resources; Public Health; and Culture & Wellbeing**; as well as key innovation ideas derived from this process.

It is expected that the Innovation Model will be a valuable resource for Cambodia, and inspire the Royal Government and institutions to respond to the pressing challenges facing society today.

# Executive Summary (2/3)

Vision

A fair & prosperous nation that leverages technological advances and modern economic principles to deliver a quality of life within resource boundaries, accomplished through the adoption of the principles of a circular economy to build a cohesive & resilient society.

Focus Area	 <b>Livelihoods, Education and Skills Development</b>	 <b>Agriculture and Rural Revitalisation</b>	 <b>Environment and Resources</b>	 <b>Public Health</b>	 <b>Culture and Wellbeing</b>
Targets	<p><b>Skills Development</b></p> <ol style="list-style-type: none"> <li>1. Workforce to complete Grade 9 by 2030</li> <li>2. Labour force certified by vocational schools</li> <li>3. Access to vocational and professional training</li> </ol> <p><b>Access to Education</b></p> <ol style="list-style-type: none"> <li>1. Access to free education material via digital platforms</li> </ol> <p><b>Cohesive Society</b></p> <ol style="list-style-type: none"> <li>1. Proficient in literacy and numeracy by 2030</li> <li>2. Teachers are certified and attended professional development course</li> </ol>	<p><b>Quality and Production</b></p> <ol style="list-style-type: none"> <li>1. Achieve food self-sufficiency</li> <li>2. Agriculture sector will contribute to one-third of Cambodia's GDP</li> </ol> <p><b>Resources, Management and Sustainability</b></p> <ol style="list-style-type: none"> <li>1. Each district to have Good Agricultural Practice certified farms</li> <li>2. Universal access to clean water and sanitation</li> </ol> <p><b>Skills and Livelihood</b></p> <ol style="list-style-type: none"> <li>1. Access to basic agriculture related education leading to certification and professional recognition</li> <li>2. Create a vibrant local agricultural eco-system</li> </ol>	<p><b>Reduce, Reuse, Recycle</b></p> <ol style="list-style-type: none"> <li>1. Reduce landfill waste through recycling systems</li> <li>2. Transform municipal waste to energy</li> </ol> <p><b>Pricing Consumption</b></p> <ol style="list-style-type: none"> <li>1. Reduce the number of car ownership</li> <li>2. Encourage sustainable use of water</li> </ol> <p><b>Natural Environment</b></p> <ol style="list-style-type: none"> <li>1. Increase energy efficiency and renewable mix</li> <li>2. Increase effectiveness of circular economy</li> </ol> <p><b>Sustainable resource use</b></p> <ol style="list-style-type: none"> <li>1. Increase protection for forests and biodiversity</li> <li>2. Spread Integrated Catchment Management (ICM) to protect water resource</li> </ol>	<p><b>Healthcare Standards via Basic Needs</b></p> <ol style="list-style-type: none"> <li>1. Universal access to potable water</li> <li>2. All households to have sanitation system</li> <li>3. All food and consumer products to be eco-labelled</li> </ol> <p><b>Building Capacity and Resources</b></p> <ol style="list-style-type: none"> <li>1. All districts to have a public healthcare centre</li> <li>2. Increase the financial resources available for public healthcare system</li> </ol> <p><b>Strengthening Delivery Systems</b></p> <ol style="list-style-type: none"> <li>1. Data accessibility for all medical service providers</li> <li>2. Increase accessibility to health centres</li> <li>3. Adequate manpower</li> </ol>	<p><b>Holistic approach to culture</b></p> <ol style="list-style-type: none"> <li>1. Connect all local community centres</li> <li>2. Increase cultural focus via education system</li> </ol> <p><b>Cultural Education</b></p> <ol style="list-style-type: none"> <li>1. Increase the size of art programmes</li> <li>2. Strengthen Cambodia's film industry</li> <li>3. Increase practical courses related to culture in all schools</li> </ol> <p><b>Funding and governance for culture</b></p> <ol style="list-style-type: none"> <li>1. Shared funding mechanism amongst cultural groups</li> <li>2. Increase sponsorship and financial contribution from private sector and individual donors</li> </ol>






Further details about guiding principles, targets and indicators can be found later in this report.



# Executive Summary (3/3)

These targets drove the creation of a number of applications that would support the Cambodia’s path to becoming an Ecological Civilisation. “Painpoints” – barriers and obstacles arising from the relationships between stakeholders – are prime opportunities for new organisations, business models and technologies that can resolve social/environmental/economic issues and improve quality of life.

Examples of innovations that support the vision:

Focus Area	 Livelihoods, Education and Skills Development	 Agriculture and Rural Revitalisation	 Environment and Resources	 Public Health	 Culture and Wellbeing
Innovations	<p><b><u>Nationwide e-Library</u></b></p> <p><b>Current challenges:</b></p> <ul style="list-style-type: none"> <li>• Access to quality education is limited due to lack of infrastructure and distance</li> <li>• Outdated curriculum</li> <li>• Shortage of opportunities to skills/vocational training</li> </ul> <p><b>Proposed solution:</b> The <b>nationwide e-Library</b> would be an integrated interactive learning platform where educational materials are prioritised for low-literacy communities.</p> <p>This will support the development of more highly skilled workers in Cambodia.</p>	<p><b><u>Water for Rural Growth</u></b></p> <p><b>Current challenges:</b></p> <ul style="list-style-type: none"> <li>• Variable access to water limits year-round farming</li> <li>• Lack of potable water</li> <li>• Prevalent health issues from poor treatment of wastewater</li> </ul> <p><b>Proposed solution:</b> This <b>nation-wide irrigation system</b> would ensure a constant supply of water for year-round farming.</p> <p>The system also ensures water and wastewater are treated for rural communities to have access to clean water and proper sanitation.</p>	<p><b><u>Payment for eco-system services</u></b></p> <p><b>Current challenges:</b></p> <ul style="list-style-type: none"> <li>• Poor water quality</li> <li>• Deforestation as forest is converted into farmland</li> <li>• Lack of financial support to affected communities</li> </ul> <p><b>Proposed solution:</b> An <b>Ecosystem Service Fund</b> would ensure adequate funding by imposing levies on polluting companies.</p> <p>The proceeds will be used to fund important eco-system services and focus on two important environmental issues facing Cambodia: water overexploitation and deforestation.</p>	<p><b><u>Public Health Obligatory Fund</u></b></p> <p><b>Current challenges :</b></p> <ul style="list-style-type: none"> <li>• Insufficient trained medical personnel</li> <li>• Lack of health facilities</li> <li>• Lack of medical supplies</li> </ul> <p><b>Proposed solution:</b> The <b>Public Health Obligatory Fund</b> would be the mechanism through which companies pay compensation for the social costs of their production.</p> <p>It will help fund the expansion of rural healthcare systems and be invested in the countryside thereby reducing health inequality between urban and rural areas.</p>	<p><b><u>CultureNet</u></b></p> <p><b>Current challenges:</b></p> <ul style="list-style-type: none"> <li>• Limited opportunities to promote culture</li> <li>• Lack of cultural awareness</li> </ul> <p><b>Proposed solution:</b> <b>CultureNet</b> will connect all local community centers to provide the space for cultural development and preservation.</p> <p>It will also support the preservation and dissemination of local and indigenous culture, while also providing an income stream for rural and local practitioners.</p>

# INTRODUCTION AND BACKGROUND





# 2019 ASEAN Young Leaders Programme



*Group photo from the ASEAN YLP Public Forum held at the Royal University of Phnom Penh, held on October 4<sup>th</sup>, 2019. GIFT was honored to welcome the Minister of Posts and Telecommunications, His Excellency Tram Iv Tek, who shared some remarks about the potential of new technologies and cross-sector collaboration to Cambodia's sustainable development.*

The **Global Institute For Tomorrow (GIFT)** is an independent pan-Asian think tank providing content-rich and intellectually challenging executive education from an Asian worldview.

Based on GIFT's internationally recognised experiential Global Leaders Programme, the ASEAN Young Leaders Programme (ASEAN YLP) is a platform to inspire a new generation of leaders, set new precedents for constructive dialogue, and promote cross-sector and cross-country collaboration.

# Programme Structure

## Objectives

- To develop a unifying vision for Cambodia's sustainable development using GIFT's innovation model.
- To develop specific targets, backed by measurable indicators, in five key focus areas: **Livelihoods, Education and Skills Development; Agriculture and Rural Revitalization; Environment and Resources; Public Health; and Culture and Wellbeing.**
- To devise **social, policy or technological innovations** to meet these targets.

## Process

- Participants met a diverse range of stakeholders, including but not limited to government officials, social enterprises, garment factory workers, university students, and farmers.
- Through intense discussion, debate and planning sessions, participants generated the content of this report.

## Outcome

- With GIFT's support, participants developed an overarching vision for Cambodia based on the principles of Ecological Civilisation, backed by a set of guiding principles, actionable targets and measurable indicators.
- Opportunities for innovation that would support the overarching vision and targets were identified.
- Highlights from the vision and innovations were presented to a diverse group of stakeholders including business, government and civil society representatives.





# Participating Organisations

Twenty-eight young professionals from business, civil society and government departments across the Southeast Asia region joined the ASEAN Young Leaders Programme in October 2019. The cohort included several Cambodians, whose insights were vital as the team developed their ideas.

GIFT is thankful to all these organisations for nominating their top young talent to join this unique programme.



Cross-sector expertise and sharing helped develop innovations for Cambodia's sustainable development.

# Supporting Organisations

Critical support was provided by the following organisations:

Ministry of Agriculture, the Royal Government of Cambodia	Ministry of Culture, the Royal Government of Cambodia
Ministry of Education, the Royal Government of Cambodia	Ministry of Environment, the Royal Government of Cambodia
Agribuddy	Cambodian Living Arts
Digital Divide Data	First Women Tech Asia
Global Green Growth Institute	Sonas
Mekong Strategic	NEXUS for Development
People in Need	Sovannak
Tap Effect	University of Puthisastra

Insights gained from a wide array of different stakeholders: business, civil society and government agencies



# Project Partner



## MINISTRY OF POSTS AND TELECOMMUNICATIONS

The Ministry of Posts and Telecommunications governs Cambodia's postal and telecommunications systems, as well as the country's principal telecoms and internet service providers: Telecom Cambodia and Camnet Internet Service.

More broadly, the Ministry also promotes network connectivity within Cambodia, and between Cambodia and the wider world.

Assistance from both the public and private sectors guided the creation of this vision

# Country Overview

Cambodia's economic growth and development since the end of political conflict has been remarkable. The country's rate of poverty declined from 47.8% in 2007 to 13.5% in 2014, exceeding expectations. The World Bank has argued this was due to higher wages for both agricultural and urban workers, and improvements in the health and education sectors. However, despite halving poverty by 2009 (a Millennium Development Goal), the World Bank noted that Cambodia's low-income households are susceptible to economic shocks.

Cambodia is rich in natural resources. The country has ample resources of water, as well as significant forest and mineral reserves. However, these abundant resource stocks have encouraged overexploitation: water overuse and deforestation are significant environmental issues for Cambodia. In addition, mining and agriculture have contributed to soil and water pollution throughout the country.

One asset for Cambodia moving into the future is its young population: 65% are under 30 years of age, young even by Southeast Asian standards. This large segment of the population, as they age, will sustain and grow Cambodia's working population in the decades to come, bolstering overall economic development. This young population also has internationally-competitive skills, with reasonably high levels of English fluency given Cambodia's level of development.



**CAMBODIA – COUNTRY SNAPSHOT (2018)**

<b>Population</b>	16.5 million 20.94% urban (2016)
<b>Language</b>	Khmer
<b>Monetary unit</b>	Cambodian Riel (1US\$ ≈ 4,091 KHR)
<b>GDP</b>	US\$ 24.2 billion
<b>GDP per capita –PPP</b>	US\$ 1,538
<b>GDP growth rate</b>	7.2%
<b>GDP composition by sector of origin</b>	Agriculture: KHR 9,401.2 billion Manufacturing: KHR 11,252.6 billion Services: KHR 19,457.2 billion

**Cambodia's young population and its rich natural resources and culture are fundamental driving forces of its economy**



# Drivers of Change in Cambodia

National, regional and global trends will affect Cambodia as it enters the coming decades. These **drivers of change** are social, economic and political changes that are outside the control of either the Royal Government of Cambodia or other Cambodian organisations. These key drivers of change include:

<b>The Rise of ASEAN</b>	Much of Cambodia's economic expansion has been driven by exports to more advanced countries, such as the United States, Australia and Europe. However, development in ASEAN countries, such as Vietnam, Indonesia, the Philippines and others may present new, more stable markets for Cambodian goods and services in the coming decades.
<b>Globalisation</b>	Cambodia's opening to the global economy has helped the country grow, through greater foreign investment and job creation. However, Cambodia's position in the global economy can be unstable, due to its reliance on FDI-driven manufacturing, which may leave if costs rise. Global expansion has also opened Cambodia's environment to damage and exploitation and affected local culture (e.g. damage to heritage sites from tourism).
<b>Growth of Cambodia's middle class</b>	Cambodia's economic growth is starting to create a new middle-class, which will lead to different economic and political expectations from Cambodia's wealthy and poor. This might accelerate the growth of urbanisation and consumption, which will put pressure on the environment and Cambodia's rural sector.
<b>Growth of digital technology</b>	Digital technology has permeated Cambodian society. Almost two-thirds of the country has a smartphone, and Cambodia has one of ASEAN's cheapest mobile data offerings. This presents opportunities for innovative ways to disseminate important information and services to Cambodia's rural population, but also highlights risks from industry disruption, unsafe labour practices and misinformation.
<b>Climate Change</b>	Climate change presents some of the greatest risks of the 21 <sup>st</sup> century. Rising temperatures and changing weather patterns can cause flash floods and droughts, and affect Cambodia's food production, which may increase food prices, leading to increased hunger and malnutrition. Beyond the potential loss of life and damage to property, climate change also impacts health, both by increasing the spread of infectious disease and increasing both air and water pollution.

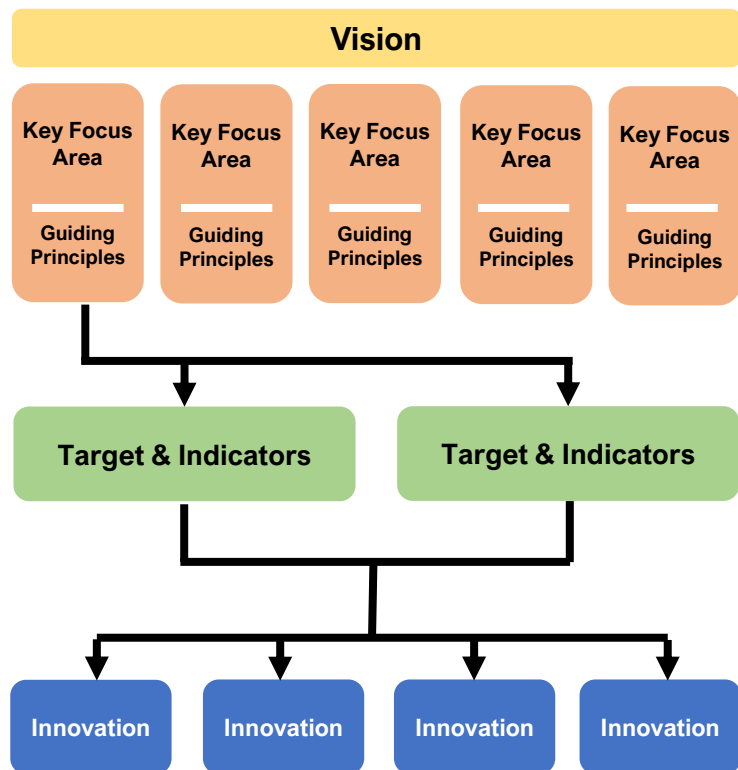
**Cambodia's future presents both risks and opportunities: constrained by climate, loosened by technology and rise of ASEAN**

# THE ECO-CIVILISATION INNOVATION MODEL





# The Development of the Model



The objective for the **2019 ASEAN Young Leaders Programme** was to develop an innovation model and a constructive set of strategies that would drive quality of life across Cambodia and the realisation of an Ecological Civilisation. These innovations would be motivated from a unifying vision, supported by a set of achievable targets and measurable indicators.

The proposed ideas generated from the innovation model can address most of Cambodia's key concerns and thematic issues in relation to achieving the global sustainable development goals.

This was achieved through the following process:

1. Developing a single **vision** that designates a clear goal for Cambodia. This vision is elaborated through **guiding principles** in five different **focus areas**: Livelihoods, Education and Skills Development, Agriculture and Rural Revitalisation, Environment and Resources, Public Health, and Culture and Wellbeing.
2. Developing a set of **targets** that convert these guiding principles into actionable objectives. Each target is backed by a series of measurable **indicators**.
3. These targets and indicators would be used to identify new projects in the form of social, policy or technological **innovations** which would in turn support achievement of the targets.

# Innovation Driven by Vision

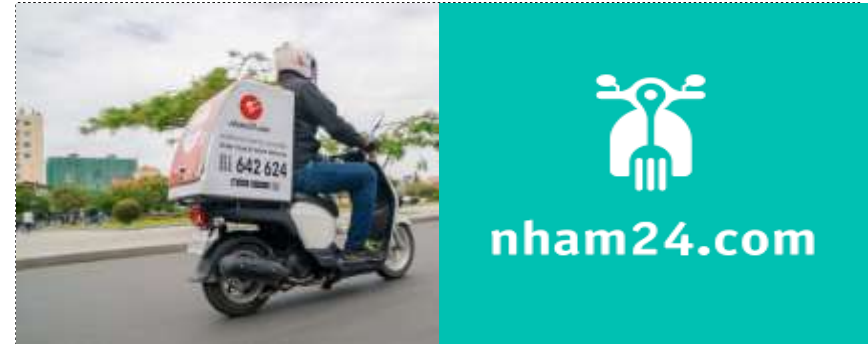
Many attempts to drive innovation focus on *business* relationships and painpoints between stakeholders that would allow goods and services to be provided at a lower cost or with greater efficiency.

Driven primarily by commercial interests, such innovation often ignores wider social or environmental implications. Many corporations rely on business models that generate significant external costs borne by society and the environment.

So long as innovation is focused on creating “unicorns” and not based on a guiding vision to create social value, societies will continue to bear these costs.

The model presented in this report approaches the question of innovation differently. It starts with a strong and unifying vision as a societal aspiration, and then identifies opportunities for innovation and technology to realise it.

Thus, these are innovations focused on providing social, rather than financial, returns.



## ***The External Effect of the Gig Economy***

*Drivers in the gig economy sustain entire ecosystems for ride-hailing, food delivery and logistics. However, the rise of these services have increased the numbers of vehicles on the road while diminishing usage of public transportation, worsening congestion. Delivery drivers operate in poor conditions with few protections and little support, and thus have more unstable livelihoods than those in the formal labour market.*

**Redefining “Innovation” and “Quality of Life” via a uniquely Cambodian Eco-Civilisation Vision**



# Relevant model for ASEAN, Asia and beyond

This model offers a practical framework for any government, company or organisation to use in devising strategies for innovation.

Instead of starting from commercial “painpoints”, it begins instead with a vision based on the end goals of an ideal quality of life and subsequently identifies social and environmental issues as a stimulus for innovation.

Cambodia is a small and open economy. While its population is growing, Cambodia is one of the smaller countries in Southeast Asia. It is also far less urbanised than its counterparts. Normally, countries like this can be squeezed out of the global economy, as they do not have the market size to compete against larger economies. Their smaller size also means they have less room to manoeuvre when it comes to controlling things like resource allocation, cross-boundary pollution, and other regional and global issues. Even more developed countries, such as Malaysia, can struggle under these circumstances.

The vision developed in this report, as well some of the innovative ideas developed herein, are thus useful to other small, open and less-developed economies as they try to navigate a more globalised and interconnected economy.

It is also important to counter the belief that “sustainable development” would lead to a lower standard of living than what has been done before. These innovations, and others that could be derived from this vision, are indications of how a contemporary lifestyle can be achieved within planetary constraints.



*From top to bottom: Phnom Penh, Kuala Lumpur, Taipei. These Asian economies, while they have varying levels of development, are similar in that they have medium-sized populations.*

**Redefining “Innovation” and “Quality of Life” for Cambodia: an open and medium-sized economy surrounded by large countries**

# THE VISION AND KEY FOCUS AREAS



# The Vision

A **fair & prosperous** nation that leverages technological advances and modern economic principles to deliver a quality of life within resource boundaries, accomplished through the adoption of the principles of the **circular economy** to build a **cohesive & resilient society**.

## Fair & Prosperous

Cambodia would provide equal access to resources and guaranteed provision of basic needs, based on a fair distribution of wealth.

## Circular Economy

Cambodia will plan its economy to achieve shared prosperity, by managing resource usage and consumption to minimise the exploitation of new resources and the creation of waste products.

## Cohesive & Resilient Society

Cambodia's population would be able to withstand the social, political and cultural challenges of the 21<sup>st</sup> century through developing strong institutions, self-sufficient communities and adaptive mindsets.

Cambodia as ASEAN's leading eco-civilisation economy



# Key Focus Areas



## Livelihoods, Education and Skills Development

Focuses on how people earn a living, whether as a formal worker, an informal laborer, a farmer, a businessowner, and so on, as well as the skills and knowledge required to succeed in those roles.

Cambodia's young population and still-developing educational infrastructure present many opportunities for new ideas on how to educate and train the next generation of Cambodians.



## Agriculture and Rural Revitalisation

Focuses on Cambodia's agricultural sector and rural economy, and what needs to be done to ensure they remain economically-viable in the coming decades.

The Cambodian government has highlighted agricultural development as its primary strategy to achieve both higher growth and reduced poverty.



## Environment and Resources

Focuses on Cambodia's natural resources, how they are managed, and how the country's environment is protected, repaired and sustained.

An increasing population and climate change will add additional pressures on Cambodia as it tries to adopt a circular economy and better manage externalities.



## Public Health

Focuses on health across different communities, and how organised efforts can build a cohesive and resilient society.

While Cambodia has made great strides on several important health metrics, its attention can be broadened to include new topics, such as environmental health, mental wellbeing, occupational safety and family planning.



## Culture and Wellbeing

Focuses on Cambodia's "way of life", in terms of both its tangible cultural and historical sites and its intangible creative, artistic and recreational activities.

Cambodia is world-renowned for its historical sites, but the country's culture is more than just temples. Both traditional and contemporary activities need to be supported as Cambodia seeks to define its identity.



These five areas cover the wide range of social issues and opportunities facing Cambodia.

# Cambodia's Sustainable Development Goals



In 2015, the United Nations General Assembly adopted the 2030 Agenda for Sustainable Development, containing the 17 Sustainable Development Goals (SDGs).

This vision aligns with these goals, which strive to create a more prosperous, equal and sustainable global society.

Much like the SDGs, this vision understands that sustainable development (and, specifically, Ecological Civilisation) is more than the standard metrics on both economics and environmental matters, to include movement towards basic needs, public health, social wellbeing and community cohesion (to name a few).

Finally, meaningful progress towards this vision can be highlighted by global institutions supporting the SDGs. This vision, and lessons from it, can be replicated throughout ASEAN and around the world.

The targets set throughout the report complements and aligns with the SDGs.

This vision aligns with both a Cambodian and a global agenda.



**FOCUS AREA:**  
**Livelihoods, Education and Skills Development**



# Introduction

**Livelihoods, Education & Skills Development** will be a critical part of Cambodia's economy development.

**Livelihoods** covers all forms of income-generating activities, and includes a wide range of factors from employment opportunities, economic policies, and labour conditions to regulatory transparency and ease of starting a business.

**Education** means the general skills and knowledge gained through childhood and young adulthood; and should be considered from a wider scope than just primary, secondary and tertiary education, which includes the idea of lifelong learning.

**Skills Development**, is focused on initiatives that equip potential employees with skills required by the wider economy. As Cambodia develops, new skill sets are needed. Manufacturing needs specific vocational skills to serve the supply chain, while a growing service sector requires people with specific professional skills.

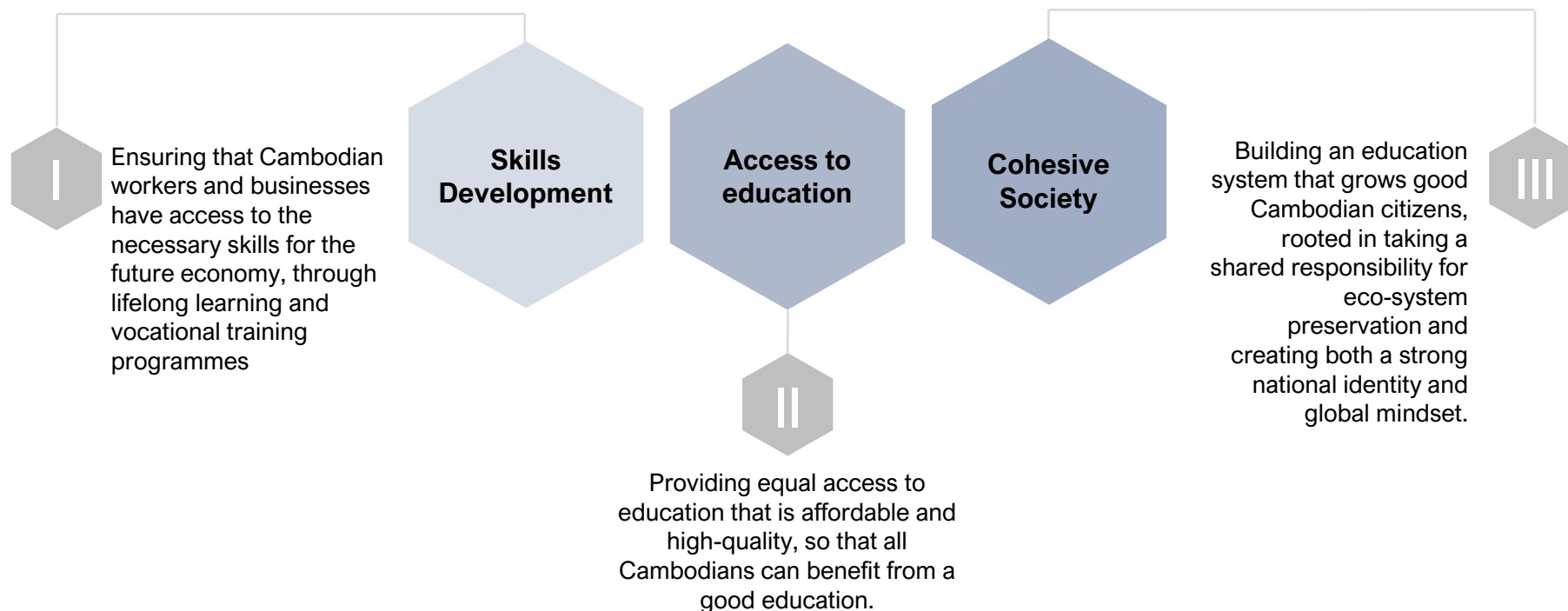
The Royal Government of Cambodia recognises the need to equip Cambodians with the right skills to help the country become a middle-income nation by 2030.



**Education attainment and skills development can be a critical driver for nation building in Cambodia**

# Guiding Principles

These guiding principles are focused on developing the next generation of Cambodians, teaching them the skills they need to succeed in the economy of the future, and the knowledge and mindsets needed to become socially-conscious members of society. Finally, they will ensure that all Cambodians – rich or poor, urban or rural – will have access to these educational opportunities.



# Targets and Indicators

## Skills Development

It is vital that Cambodia's curriculum remains relevant to the trends of the 21<sup>st</sup> century, and the country should strive to continuously develop its labour force through lifelong learning and skills development programmes. One key concern is the high drop-out rate in schools, especially amongst its lower-income population, regarded as a crucial barrier to development.



**Target: Cambodia's entire labour force (unskilled, skilled, semi-skilled) will have completed Grade 9 by 2030.**

Indicator 1: From 2020, dropout rate of students to be reduced by 5% yearly.

Indicator 2: Eliminate the gap in educational access between men and women, and between urban and rural communities, by 2030.



**Target: Cambodia's skilled & semi-skilled labour force will be certified by vocational schools accredited by the Ministry of Education, High Schools and/ or University by 2030.\***

Indicator 1: From 2020, 80% of the final year students to complete vocational school yearly.

Indicator 2: From 2020, 80% of the final year students to complete high school yearly.



**Target: All active members of labour force (skilled & semi-skilled) will have access to vocational and professional education and training leading to certification and professional recognition by 2030.**

Indicator 1: 70% of workforce to have undergone at least one training course per year by 2030.

Indicator 2: 20% of all adults to have undertaken vocational and professional education and training by 2030.

Aligns with SDG goals:



**Building a Cambodian labour force well-suited to the demands of the future economy**



# Targets and Indicators

## Access to Education

Cambodia still struggles to provide universal education, especially to poorer rural communities. The country's educational infrastructure needed to be rebuilt in the aftermath of political conflict, which means that there are many areas still underserved by educational facilities. While private institutions have arisen to fill the gap, they may be priced at unaffordable levels for most Cambodians.



**Target: All Cambodians will have access to free education material via digital platforms by 2025.**

Indicator 1: 100% of all public Cambodian educational material (academic and vocational) to be available digitally by 2025.

Indicator 2: Programmes providing free educational material (academic and vocational) to expand by 15% annually from 2022 onwards.

Aligns with SDG goals:



Ensuring both rural and urban Cambodians have access to a high-quality education

# Targets and Indicators

## Cohesive Society

People often talk about education in terms of producing a skilled working population, but just as important is teaching people how to be good members of society. In the 21<sup>st</sup> century, this must include a deeper understanding of environmental issues and the ability to make informed and responsible decisions. Cambodia's education system must develop individuals that are good members of local, national and global communities to contribute as stewards for the social, political and economic health of the global economy.

**Target: By 2030, all students to be proficient in literacy and numeracy by the end of early childhood education.**

Indicator 1: Students score at least 400 in the Programme for International Student Assessment Test (PISA) across all subject areas by 2030.

Indicator 2: Achieve an average score of 450 in the Trends in International Mathematics & Science Study (TIMSS) by 2030.

**Target: All teachers in primary and secondary school are certified from Teacher Training Centre and attended professional development course from 2021.**

Indicator 1: All teachers passed the "Teacher Training Exam" and Continuous Professional Development (CPD)" every 5 years.

Indicator 2: 80% of teachers received at least "Satisfactory" upward feedback from students on the delivery of the curriculum by 2030.

Aligns with SDG goals:



Providing young Cambodians with the mindsets and tools needed to be good members of a 21<sup>st</sup> Century Cambodian society

**FOCUS AREA:**  
**Agriculture and Rural Revitalisation**





# Introduction

This focus area covers the rural economy and its revitalisation: often neglected in most discussions of modernity and economic development.

**Agriculture** covers farming, whether that is staple foods, cash crops, livestock, or agricultural raw materials for manufacturing. It not only concerns what farmers farm, but how they farm it: how they use agricultural inputs, how they cultivate and harvest their produce, and how they get it to market.

**Rural Revitalisation**, is broader, focusing on how to invest in rural communities to make them economically-vibrant communities: a place where people want to stay, work and raise families and thereby reduce urban migration.

A number of Cambodian products have an international reputation for high quality, such as its award-winning rice. Despite this, the nation's agricultural sector is growing at a slower rate than its manufacturing or service sectors.

With more than 80% of its population depending on agriculture for their livelihoods, the Royal Government recognises that the need to grow the agriculture sector is pertinent to improve income levels of smallholder farmers. Cambodia's small farmers are highly vulnerable to extreme weather, pest and disease, and are often risk-averse. They are also at risk from environmental and health damage from the poor use of chemicals, as they rarely have access to training on proper use and application. Finally, their produce are at risk of price fluctuations, leading to unstable incomes.

A vibrant rural economy, and by extension a sustainable balance between urban and rural communities, will support a balanced model of development where both city- and countryside-dwellers can flourish.



Image credit: Open Development

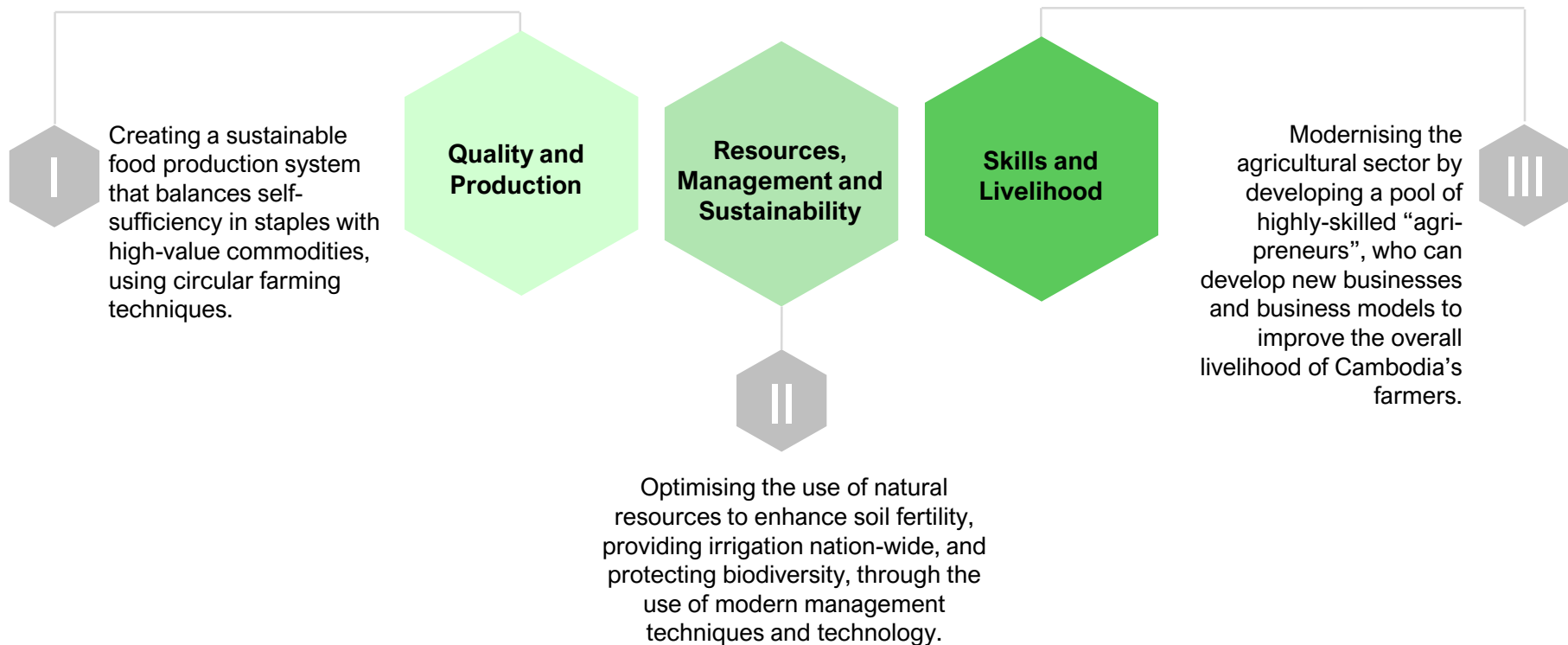


Image credit: World Economic Forum

**Cambodia's economic development must be grounded in a strong agricultural sector and cannot be driven solely by the urban economy**

# Guiding Principles

Cambodia needs a strong and resilient agricultural sector if it is to succeed in the coming decades, which will be marked by short-term economic and environmental shocks. It needs to both provide enough income for smallholder farmers to thrive, while also ensuring that enough staple food is grown to sustain Cambodia's growing urban population. Finally, the sector needs to be made economically-viable, to ensure that farming and agriculture is an attractive lifestyle for young and talented Cambodians.



# Targets and Indicators

## Quality and Production

Cambodian agriculture suffers from low productivity, low use of technology, and weak links to formal markets.

As a result, smallholder farmers are unable to earn a stable income, gain access to modern technologies and compete in the global market. The nation should continuously improve its crop quality and production by focusing on increasing the economic value of its commodities.

Aligns with SDG goals:



**Target: Achieve food self-sufficiency in Cambodia by 2030.**

Indicator 1: Reduce agricultural imports by 7% annually.

Indicator 2: Increase agricultural exports by 7% annually.



**Target: Cambodia's agriculture sector will contribute one-third of the country's GDP by 2030. \*2018 contribution stands at 22%**

Indicator 1: Annual increase in agricultural processing by 10% annually.

Indicator 2: Annual increase in agricultural share of GDP by 4% annually.

Combining self-sufficiency in staples with export-oriented crops.



# Targets and Indicators

## Resources, Management and Sustainability

Despite the importance of agriculture to the Cambodian economy, farmers are still highly-vulnerable to environmental damage and poor health, largely stemming from the improper use of chemicals and limited access to water.



**Target: Each district to have Good Agricultural Practice certified farms of agriculture products by 2030.**

Indicator 1: Annual increase of 10% in farms in each district engaging in good agricultural practices, as defined by the Food and Agricultural Organisation of the United Nations.

Indicator 2: Annual reduction of 10% in confirmed food poisoning cases using locally-grown ingredients.



**Target: Universal access to clean water and sanitation by 2030.**

Indicator 1: Annual increase of rural population with access to clean water of 3%.

Indicator 2: Annual increase of rural population with improved sanitation of 5%.

Indicator 3: Annual increase of people with basic hygiene facilities of 5%.

Indicator 4: Annual increase of Cambodian Organic Agriculture Association (COAA) certification for local farmers of 10%.

Indicator 5: 20% annual reduction in the import of highly-hazardous pesticides.

Aligns with SDG goals:



**Creating safe and resilient farms for a more resource-constrained future**

# Targets and Indicators



Despite having a young population, the overall level of talent in Cambodia’s agriculture sector is declining. The sector needs to be modernised: not from the top-down, but from the bottom-up, through highly-skilled “agripreneurs” willing to start new businesses in farming, refining and processing. This will help create new employment and business opportunities in local Cambodian communities.



**Target: All farmers to have access to basic agriculture related education and training leading to Good Agriculture Practice certification and professional recognition by 2030.**

Indicator 1: At least 50% of farmers have undergone at least 1 basic Good Agriculture Practice training course by 2030.

Indicator 2: At least 70% of the Government Education Institutions have teachers trained to deliver the agriculture related curriculum by 2030.



**Target: Build a vibrant local agricultural eco-system through the creation of small-sized agricultural enterprises.**

Indicator 1: Average income of farmers with annual growth of US\$200 per year to reach an average of US\$3,600 per year by 2030.

Indicator 2: Annual growth of 5% in number of new post-harvest agricultural enterprises (i.e. packaging, processing, refining, transportation)

Indicator 3: Annual growth of 5% in new non-farmer agricultural employment opportunities.

Aligns with SDG goals:



**Making an economically-vibrant rural economy from the bottom up**

# FOCUS AREA: Environment and Resources





# Introduction

Environment and Resources covers both environmental protection and natural resource management.

**Environment** concerns how human activity damages the environment, whether that is air, water or ground pollution, or damage to biodiversity and natural environments.

**Resources**, instead, concerns how society uses natural resources, especially those that are non-renewable. If resources are consumed faster than they are replenished, then society is acting unsustainably, and will eventually reach a point where it cannot sustain itself from existing resources. A more sustainable society is one that limits its use of resources and improves its reuse and recycling of waste.

Cambodia is highly vulnerable to climate change because it relies on climate-sensitive sectors: agriculture, land, water, and forestry. In addition, many households lack the resources to withstand damage from climate change.

Cambodia's resources should be managed through policy innovations, promote circular economy thus increasing its resiliency towards climate change.

## Snapshot of Cambodia's Natural Resources

### Underground

- Minerals
- Gold
- Oil
- Natural Gas

### Overground

- Arable Land
- Forest
- Livestock

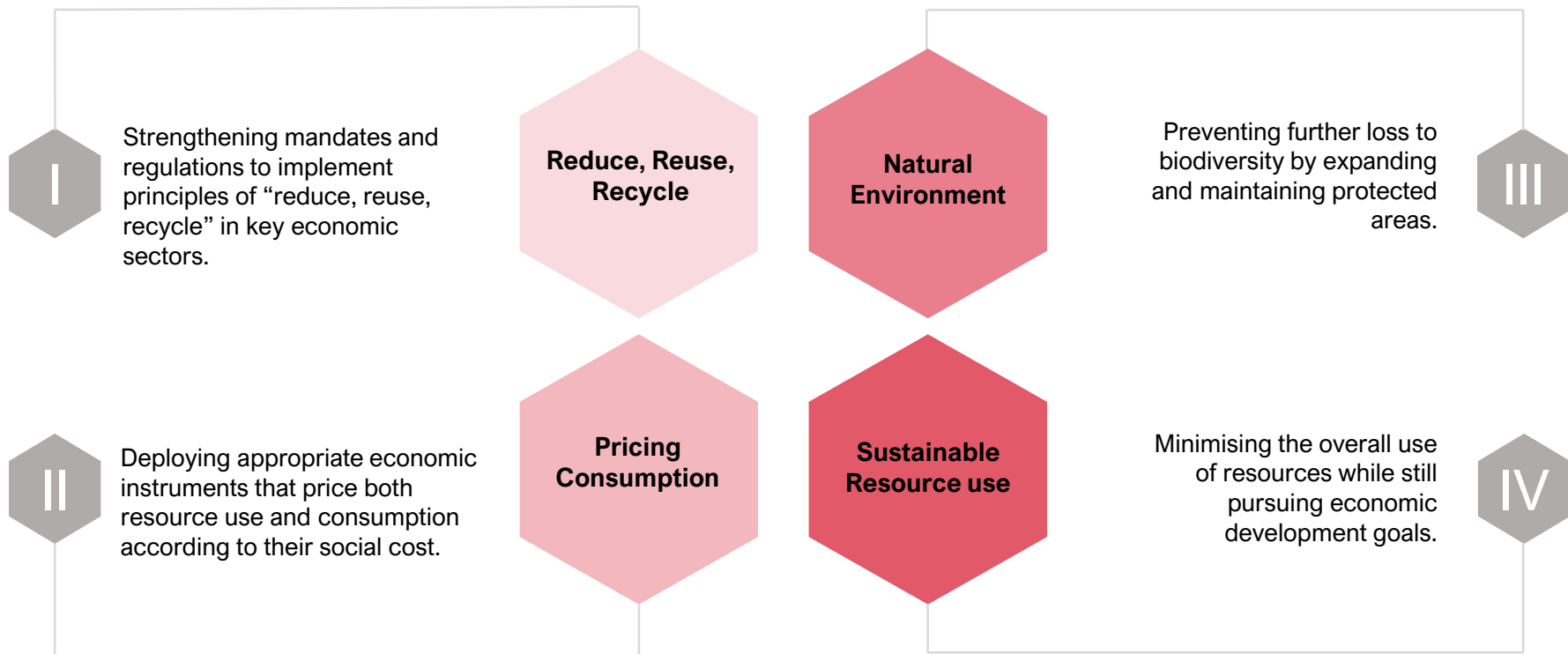


Image credit: Roz Clark Walker

Preserving Cambodia's bounty of natural resources and maintaining its environmental quality for future generations

# Guiding Principles

Cambodia may be a less-developed country, but it faces both an increased risk of resource over-exploitation and damaging effects from climate change. Cambodia's ecological footprint should be controlled and managed through policy innovations that would limit its impact on natural resources and improve the quality of its environment.



# Targets and Indicators

## Mandates for Reduce, Reuse, Recycle

Waste management is increasingly a global issue, especially as the world consumes more and more products as incomes increase. Developing countries in Southeast Asia increasingly not only need to manage their own waste, but the waste of advanced economies shipping their recyclable waste to countries with cheaper labour. As Cambodia develops and consumption increases, it needs to develop systems to properly reduce and reuse waste.



**Target: Spread recycling systems across Cambodia to reduce the overall landfill waste generated.**

Indicator 1: Urban and rural areas covered by recycling programmes to annually increase by 10% and 5% respectively.

Indicator 2: Weight of recycled plastics over total weight of plastic waste collected to increase by 25% by 2030.



**Target: Develop systems that transform municipal waste into energy by 2030.**

Indicator 1: Amount of waste sent to the incineration plant over total weight of waste collected to increase by 4% year-on-year.

Aligns with SDG goals:



Important to manage Cambodia's waste as incomes and consumptions grow to prevent the scourge of pollution



# Targets and Indicators

## Pricing Consumption

Many economic activities have an external cost paid not by the producer or consumer, but by society at large. These externalities are typically the result of overconsumption, and often leave society's marginalised and at-risk groups to suffer the costs. Cambodia will need to develop mechanisms that ensure these costs are included in the overall price, so that the socially-optimum level is produced and consumed.



**Target: Slow the growth of car ownership in Cambodia to better manage traffic, pollution, and other external costs of vehicle use.**

Indicator 1: Number of vehicles per person in the nation to grow by no more than 5% annually.



**Target: Encourage more sustainable use of water by households, agriculture and industry through proper pricing.**

Indicator 1: Increase in a charge/litre fee on water extraction companies, starting from 2030.

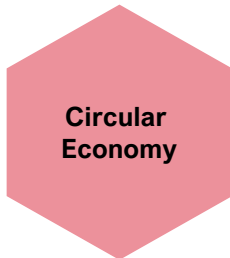
Indicator 2: Annual reduction of 5% in non-revenue water outside of Phnom Penh and Siem Reap.

Aligns with SDG goals:



Using pricing and controls to ensure that the social optimum of goods and services are consumed

# Targets and Indicators



**Circular Economy**

A circular economy is one where outputs are converted into inputs, reducing the amount of new resources that need to be exploited. This is the ultimate goal of most sustainable development platforms. As a still-developing economy, Cambodia has the opportunity to develop new structures and mechanisms now, rather than trying to reform legacy systems and structures later.



**Target: Increase Cambodia energy efficiency and renewable energy mix**

Indicator 1: Increase energy efficiency by 10%, calculated by Energy Usage or Production/ GDP

Indicator 2: Increase renewable mix by 70%, calculated by Renewable Energy/ Total Energy Mix



**Target: Increase effectiveness of circular economy**

Indicator 1: Reduce waste intensity by 10%, calculated by Percentage of Waste/ GDP

Aligns with SDG goals:



**As it is not limited by legacy economic structures, Cambodia can become the model of a circular economy.**

# Targets and Indicators



Cambodia is blessed with large stocks of natural resources, but these risk being over-exploited by an unmanaged and uncontrolled economic system. Cambodia needs to develop structures that mandate the sustainable use of natural resources through policies, enforcement and technology, with a focus on forestry and water, to ensure that these endure for the next generation.



**Target: Expand Cambodia’s protections for forests and biodiversity.**

Indicator 1: Increase total protected forest cover to 60% by 2030.

Indicator 2: Annual increase in the number of identified species in Cambodia by 0.5%



**Target: Spread Integrated Catchment Management (ICM) to protect water resources.**

Indicator 1: Integrate ICM into water resource constitution by 2025.

Indicator 2: Implement ICM across 40% of the country’s total catchment area by 2030.

Aligns with SDG goals:



**Cambodia can work to ensure its natural resources are preserved for future generations.**



**FOCUS AREA:  
Public Health**



# Introduction

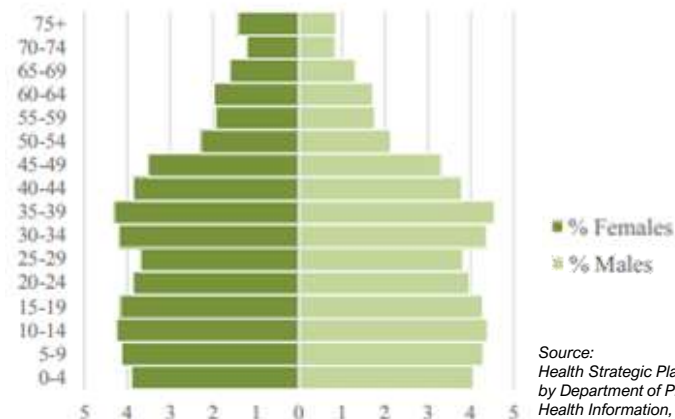
Public Health looks at health across society as a whole: it aims to ensure the long-term health and well-being of a population through organised efforts and social choices to building a cohesive and resilient society. It is broader than just the access to a hospital, but also includes topics like environmental health, mental wellbeing, health economics, occupational safety, and family planning.

Cambodia is currently going through a demographic transition. The expected changes in demographic composition will lead to different health demands as the population ages.

By 2030, Cambodia's population will reach 20 million. Children under the age of five, people over the age of sixty, and women of reproductive age will make up 10%, 7% and 25% of Cambodia's population respectively. Each of these groups will have greater health care demands than the rest of the population.

The key concern for the country's healthcare system is the lack of adequate clean water and proper sanitation systems. In addition, the lack of good health data makes it difficult for the country to plan appropriate healthcare interventions.

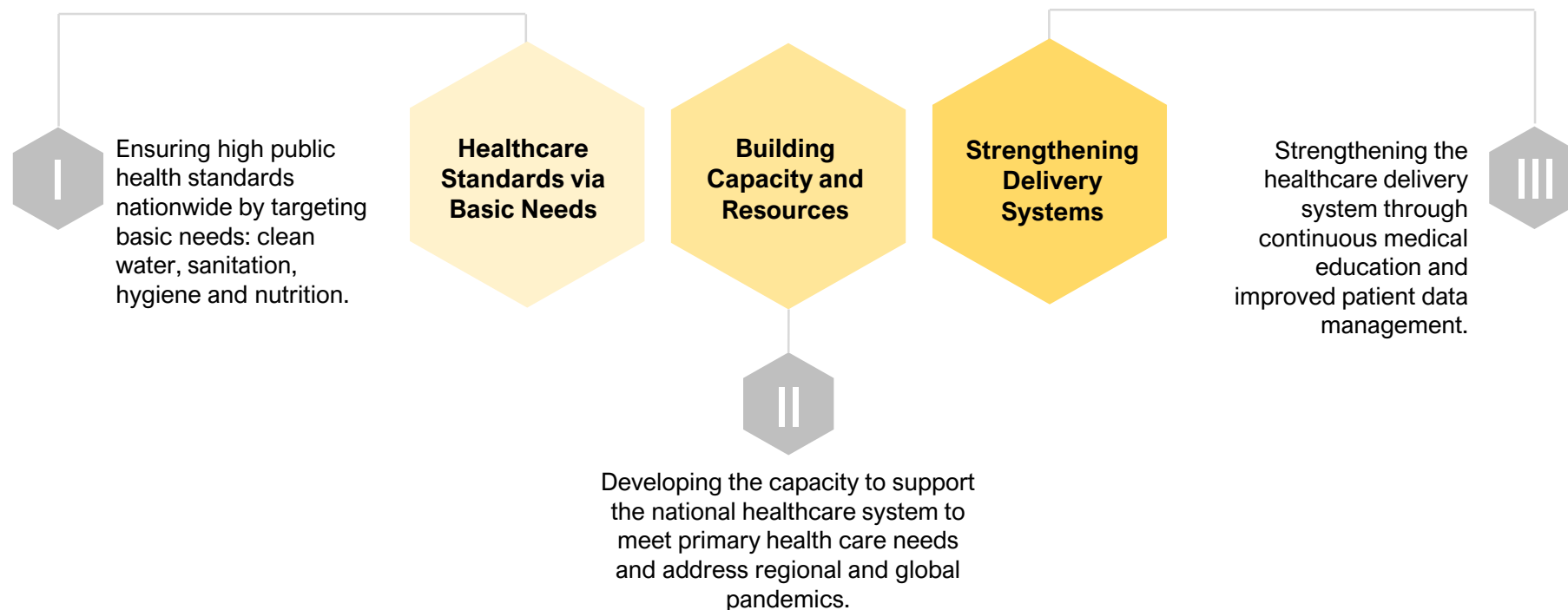
Figure 1 Population Projection for 2030



Expanding our understanding of healthcare to include necessary social interventions to provide basic needs and ensure long and healthy lives

# Guiding Principles

Cambodia's objective is to create an ideal environment for living, working, and travelling, and so public health needs to be a key pillar of development. This approach needs to be broader than just access to the formal healthcare system, but also must include targeted social interventions in order to improve the overall health of Cambodia's population.



# Targets and Indicators

## Healthcare Standards via Basic Needs

Estimates suggest that four million Cambodians lack access to safe water, while six million lack access to improved sanitation. UNICEF estimates that one in three Cambodians use water from a non-improved water source. Concerted efforts are needed to achieve high public health standards nationwide.

Aligns with SDG goals:



**Target: Universal access to potable water by 2035.**

Indicator 1: Annual increase of households with access to potable water of 2%.

Indicator 2: 95% of water treatment operation concession licenses to be granted by 2025.



**Target: All households to have sanitation system, including adequate human waste management systems, by 2035.**

Indicator 1: Annual increase of households with sanitation systems of 3%.

Indicator 2: All districts to have appropriate sewerage system for waste management by 2035



**Target: All food and consumer products to be eco-labelled by 2030.**

Indicator 1: Annual growth of eco-labelling of food and other consumer products of 3%.

**Universal access to basic needs will help Cambodia achieve important public health objectives.**



# Targets and Indicators

## Building Capacity and Resources

The current healthcare system cannot meet the essential needs of the population because of the lack of infrastructure and skilled workers. It is necessary to invest in healthcare capacity, in order to expand healthcare coverage to provide healthcare access for all Cambodians.

**Target: All provinces, districts, communes and villages in Cambodia to have a public health care centre within a 20km radius or 20-minute journey by 2035.**

Indicator 1: Life expectancy to increase to world average of 72.2 years by 2030.

Indicator 2: All districts to have a public hospital by 2030.

**Target: Increase the financial resources available to the public healthcare system through the proper pricing of external costs.**

Indicator 1: Number of public health externalities captured by proper pricing to increase by 20% annually.

Indicator 2: Budget allocation for human capital development (among other key medical focus areas) to increase by 20% annually.

Aligns with SDG goals:



**Bolstering the public health care system by forcing those creating negative health effects to pay.**

# Targets and Indicators

## Delivery System

Health information and data are necessary to assess the progress and performance of the healthcare system. Activity within the public and private healthcare systems must be integrated to allow for the effective use of real-time health information and optimal use of health facilities.

Aligns with SDG goals:



**Target: All related health information and health facilities data across the nation to be accessible by all medical service providers by 2035.**

Indicator 1: Integrate all health care providers onto a common system by 2025.

Indicator 2: 100% of patient data accessible on the integrated system by 2030.



**Target: All health centres (urban & rural) to be accessible by high-quality road and transportation infrastructure by 2035.**

Indicator 1: Every district to have one ambulance per 50,000 population by 2030.

Indicator 2: Health professional response time to fall to a maximum of 30 minutes by 2030.




**Target: All public health care centres to have adequate manpower to support daily operations by 2035.**

Indicator 1: Increase enrolment in health-related education by 20% annually

Indicator 2: Increase manpower serving in health care centres by 20% annually.

Shared patient data can help encourage the more efficient and effective use of healthcare resources.



The image shows a detailed view of an ancient stone temple facade. The central feature is a doorway with a double-panel door, both heavily carved with geometric and floral patterns. On either side of the doorway are niches containing standing female figures, likely goddesses, also intricately carved. The entire surface is covered in complex relief work, including floral motifs, scrolls, and other figures. The stone is dark and shows signs of weathering and age. A semi-transparent white banner with a rounded right edge is overlaid on the top left, containing the text 'FOCUS AREA: Culture and Wellbeing'.

**FOCUS AREA:**  
**Culture and Wellbeing**



# Introduction

Culture and Wellbeing covers all the human activities that are not justified on the basis of subsistence or economic productivity, whether done for creative and artistic purposes, religious or traditional ceremonies, or just for relaxation.

**Culture** is the range of activities justified on an artistic or religious basis, and spans both historical heritage (and its preservation) and the contemporary culture produced by today's society.

**Wellbeing** concerns recreation: the activities that people do outside of work. These recreational activities are not just important for individual welfare, but also for social solidarity.

Cambodian lifestyles have seen dramatic changes over the past several decades, due to the country's rapid development. As a small, open economy, local culture can find it difficult to build an audience and compete with global cultural products. In addition, globalisation has presented further challenges to Cambodian culture, including damage to the country's heritage sites from tourism.

Rapid economic development can undervalue the recreational and relaxation needs of ordinary people, as social and communal spaces are less emphasised than revenue-generating private spaces.

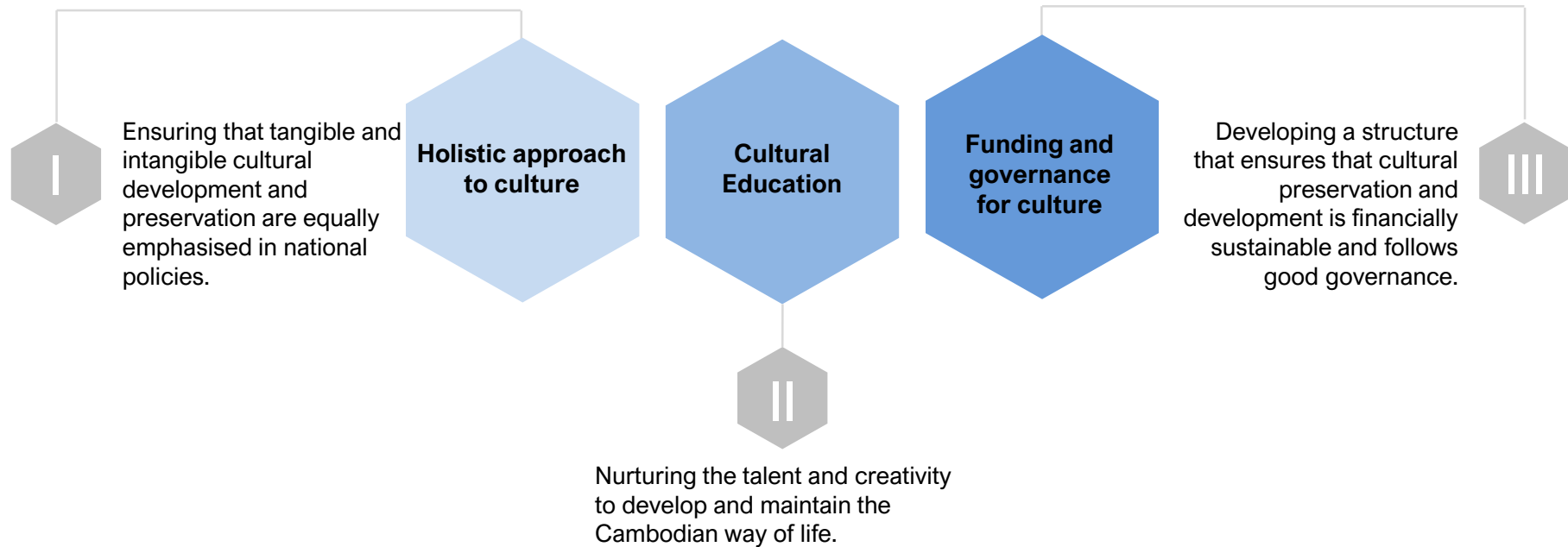


Sustainable development extends past environmental or economic metrics to include intangible activities that are part of the social fabric




# Guiding Principles

Culture and Wellbeing ultimately defines the “way of life” for Cambodia’s population and society. The country needs to establish a sustainable funding plan for cultural development, and preservation initiatives to sustain the intangible knowledge and cultural skills held by ordinary Cambodians across the nation



# Targets and Indicators



## Holistic approach to culture

Cultural preservation and development often focuses on tangible heritage; this is especially true for Cambodia, whose world-renowned temples sustain a vibrant tourism sector. Policies must seek to preserve not just tangible culture, but also intangible culture: cultural traditions and new creative endeavors.

Aligns with SDG goals:





**Target: Link all local community centers together to broadcast and promote art, performances, sports and recreation by 2025.**

Indicator 1: Annual increase of 10% in the number of community centres in all communes.

Indicator 2: Annual increase of 10% in participation levels in community centres.

Indicator 3: Annual increase of 10% in viewers of cultural events.



**Target: Encourage a focus on food, dance, music, art and language of Cambodian communities through its inclusion in the education system by 2030.**

Indicator 1: Annual increase of 10% of cultural events in each district on yearly basis to promote Cambodian food, dance, music, art and language.

Indicator 2: Annual increase of 10% of attendance in cultural campaigns.

Indicator 3: Make a one-hour per week culture course (i.e. 1 hour) a compulsory subject in formal education by 2023.

**Cambodia's culture is more than just its temples and big cities: culture on the local level must be supported and shared nationally.**

# Targets and Indicators



**Cultural Education**

The best way to support culture in the long-term is to ensure that talent and creativity is nurtured within the education system. This will foster a group of young Cambodians who can take both traditional and contemporary arts forward into the coming decades.

Aligns with SDG goal:



**Target: Increase the size of the arts programmes at the National Royal University of Fine Art.**

Indicator 1: Annual increase of 10% in number of teachers in National Royal University of Fine Art.

Indicator 2: Annual increase of 10% in number of students in National Royal University of Fine Art.



**Target: Bolster Cambodia's film industry by offering cinematography production courses in National Royal University of Fine Art.**

Indicator 1: At least two cinematography courses to be offered by 2020.

Indicator 2: Achieve at least 100 number of participation/enrollment per year.

Indicator 3: Achieve a 70% completion rate by 2024.



**Target: Have practical courses in dance, art, song, sports and cuisine across all Cambodian schools by 2030.**

Indicator 1: Achieve 100% of practical curriculum rollout in primary, secondary and high school.

Indicator 2: Allocate at least 100 teachers each year in culture module to achieve student to teacher ratio of 37:1.

Young Cambodians will sustain the country's cultural preservation efforts and the growth of new forms of arts and creative industries

# Targets and Indicators



## Funding and governance for culture

Cultural development can be difficult to fund, especially for those activities outside of the commercial mainstream. The current focus in Cambodia, when it comes to cultural development and preservation, are limited to protected UNESCO sites and cultural activities. To ensure the long-term viability of Cambodian culture, mechanisms must be developed to help make it financially sustainable.



**Target: Develop a well-governed mechanism to share funding amongst cultural groups by 2023.**

Indicator 1: To create at least five shared funds for culture preservation and development by 2023.

Indicator 2: To publish audited financial statement of fund which includes source and usage of fund annually.



**Target: Increase sponsorship and contributions from both the private sector and individual donors towards cultural preservation and development.**

Indicator 1: Annual increase of 10% of overall funds allotted to cultural development.

Indicator 2: Annual increase of 10% in number of sponsorship from private sector.

Indicator 3: Annual increase of 10% in donations from individual philanthropists.

Aligns with SDG goal:



**Better funding and governance mechanisms will ensure that new cultural groups and organisations will survive in the long-term.**



# OPPORTUNITIES FOR INNOVATION

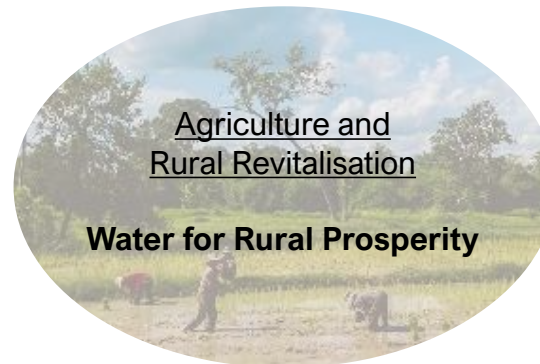


# Selected Targets & Innovations

For each of the key focus areas, we have selected one target to be the inspiration for a new social, policy or technological innovation. These ideas, if implemented, would help Cambodia reach the selected target, and in turn support the vision and guiding principles for sustainable development.

These innovations are meant as illustrative examples of how this report's overarching vision can lead to new innovations to help Cambodian society.

Innovations identified include:







**FOCUS AREA:**  
**Livelihoods, Education and Skills Development**

# Chosen Target



**Target: All Cambodians will have access to free education material via digital platforms by 2025.**

Most of Cambodia's population live in countryside villages and towns. This can make it difficult to spread educational materials to remote households; in addition, time spent in formal education means less time spent helping the family. Digital technology helps remote students access necessary educational materials, supporting them to get a 21<sup>st</sup> century education.



Image credit: The Phnom Penh Post



# Innovation Ideas

## Technological Innovations

### Create an integrated skills development platform, delivered digitally

Cambodia will need a well-trained and highly-skilled workforce as it develops in the coming decades. Manufacturing will transition into higher-value products, which require more skilled workers. Training in digital skills and tech talent will also support the local digital economy as Cambodians build new 21<sup>st</sup> century businesses.

A national **Human Capital Database (“HC Database”)** will record the personal data and milestones of students going through Cambodia’s formal education system. Broad trends can be captured from that data to highlight education gaps and competitive advantages, which will aid with developing government policy.

The **HC Database** would support other initiatives.

A **National Electronic Audio & Visual Resource Library for Skills Development** (the “**Nationwide e-Library**”) would be an integrated interactive learning platform that would support curriculum planning. This would be delivered electronically, including audio and visual resources to account for limited literacy outside of Cambodia’s major urban centers.

A **National Network of Young Scientists** would use technology to encourage not just STEM skills, but also environmental awareness and cultural inquisitiveness. This network would connect schools within each district, and would improve Cambodia’s ability to conduct local technical projects, product development and research.

Finally, the insights gained from the **HC Database** could be used to support a strategic plan to localise the national curriculum to suit the needs and strengths of the local district populations.

Addresses the following painpoints:

**Painpoint:**

Lack of access to quality education due to distance and lack of infrastructure

**Painpoint:**

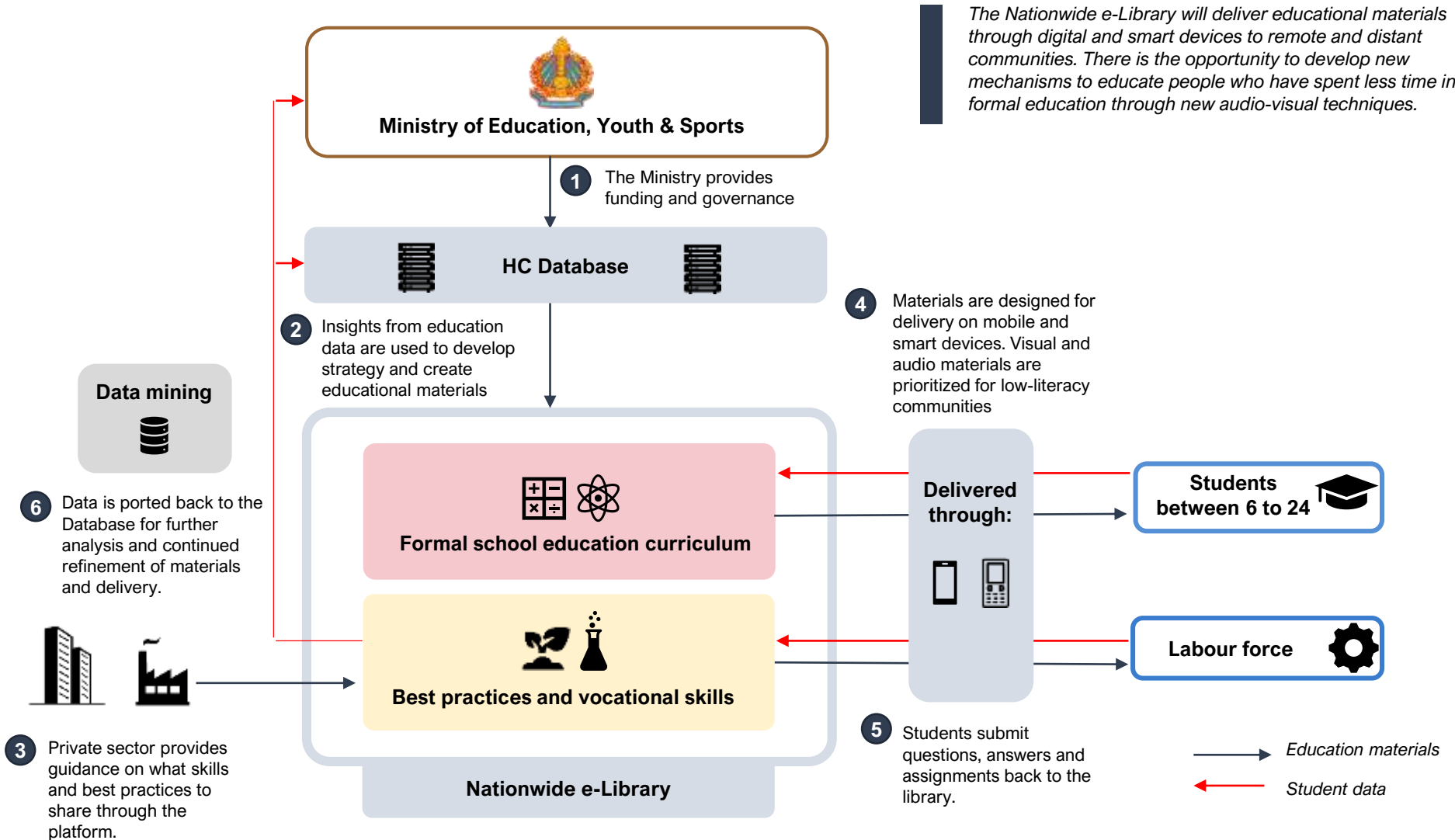
Outdated curriculum and learning materials

**Painpoint:**

Lack of access to educational opportunities, especially for skills/vocational training



# Nationwide e-Library



The Nationwide e-Library will deliver educational materials through digital and smart devices to remote and distant communities. There is the opportunity to develop new mechanisms to educate people who have spent less time in formal education through new audio-visual techniques.

**FOCUS AREA:**  
**Agriculture and Rural Revitalisation**





# Chosen Target



**Target: Universal access to clean water and sanitation by 2030.**

Estimates suggest that 70% of primary schools do not have access to adequate water, sanitation and hygiene facilities. The country also has the region's highest rates of open defecation, which is linked to disease, malnutrition and stunted growth. These disproportionately affect rural residents, who tend to be poorer than urban Cambodians.



Image credit: Smart Water



# Innovation Ideas

## Technological Innovations

### **Water For Rural Growth**

Cambodia is blessed with plenty of water during the wet season. However, shortages are common during the dry season, which prevents farmers from farming year-round, which in turn leads to lower incomes and reduced self-sufficiency.

This **nation-wide irrigation system** would ensure a constant supply of water for year-round farming. Reservoir ponds will be built in each village using local labour and know-how. Water treatment plants and irrigation systems will draw water from these ponds. Waste water treatment plants will also be installed to treat wastewater.

While the system's initial funding can be provided by the government and multilateral development agencies, the system will eventually achieve financial sustainability through a charging scheme run by the community.

This scheme would not only promote agricultural development, it would also ensure access to clean water and sanitation to rural households. This, in turn, will improve social outcomes in more remote rural communities, making these areas more attractive to younger Cambodians seeking better standards of living.

Addresses the following painpoints:

**Painpoint:**  
Variable access to water  
limits the viability of year-  
round farming

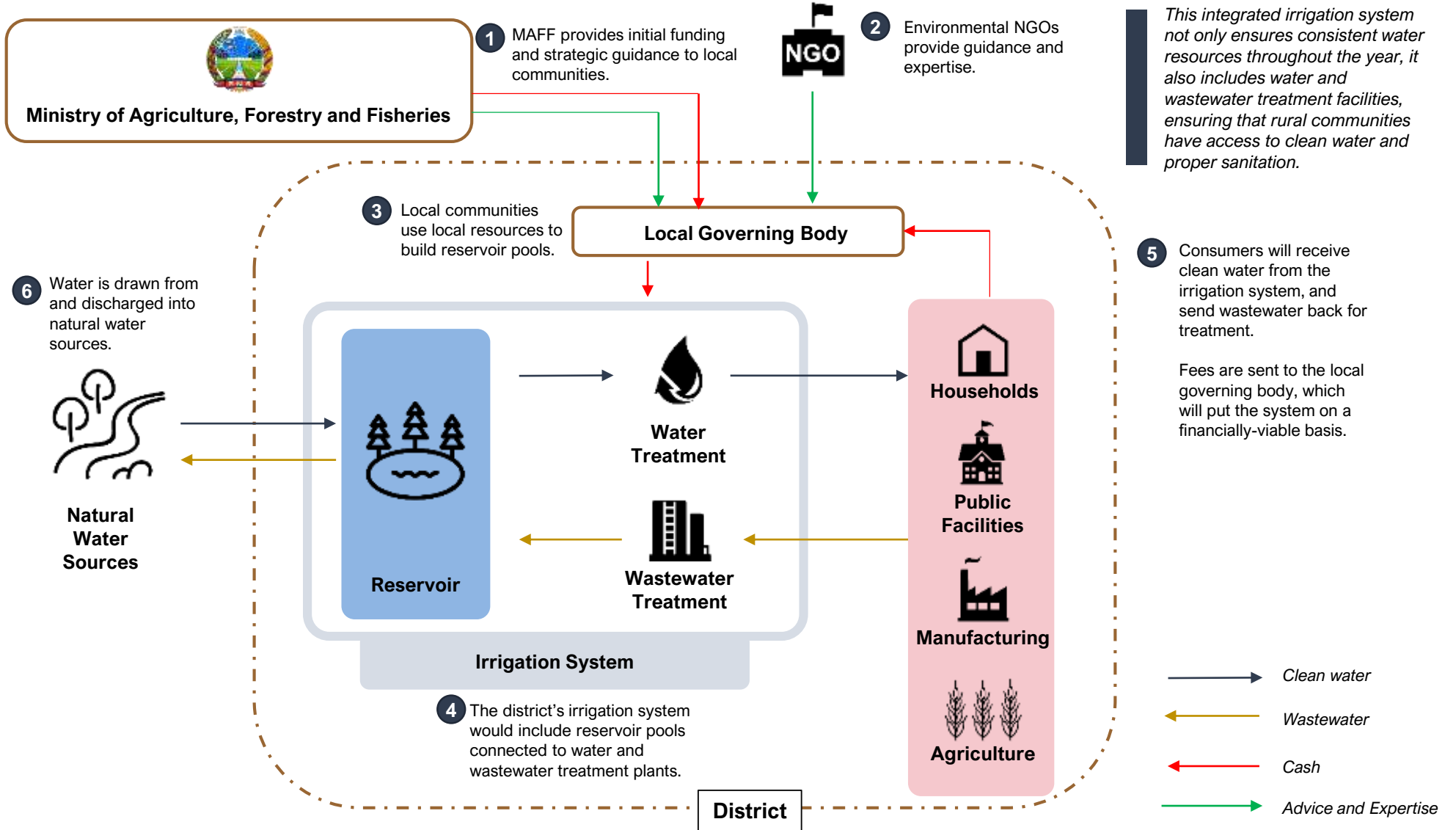
**Painpoint:**  
Lack of potable water

**Painpoint:**  
Public health issues  
stemming from poor  
treatment of wastewater



Image credit: AFD

# Water for Rural Prosperity



*This integrated irrigation system not only ensures consistent water resources throughout the year, it also includes water and wastewater treatment facilities, ensuring that rural communities have access to clean water and proper sanitation.*

Fees are sent to the local governing body, which will put the system on a financially-viable basis.

# FOCUS AREA: Environment and Resources



# Chosen Target



**Target:** Encourage the more sustainable use of water by households, agriculture and industry through proper pricing.

Without proper controls, industries and cities can overuse Cambodia's common resources, such as water resources or forestry. In addition, the services that could restore these resources, such as reforestation, are "overpriced", meaning they are consumed at levels far below what is socially optimal. Proper support, funded by proper pricing, can help restore damaged eco-systems.



Image credit: AFP



# Innovation Ideas

## Technological Innovations

### Payment for Ecosystem Services

One reason why it is difficult for the free market to provide eco-system services is that it focuses on *common goods and services*. The benefits are often non-excludable: as everyone can benefit without paying, profit-driven entities are less willing to provide them at the socially-optimum level.

An **Ecosystem Service Fund** can be set up that would resolve these problems by ensuring there are adequate funds to sustain the management of the ecosystem. The funds would be levied on those creating external costs, Companies operating in ecologically sensitive areas — namely, mining and metals, utilities, agriculture, forestry, and oil and gas — would sustain the fund through a portion of their annual revenue, matched with government funds from the license fees charged to their companies.

The proceeds from these services will be used to improve the surrounding ecosystem, either directly or through rural households charged with managing the environment.

This mechanism would help resolve many of the market failures surrounding the ecosystem: reducing external costs and supporting external benefits.

Addresses the following painpoints:

**Painpoint:**  
Deteriorating water quality

**Painpoint:**  
Deforestation as forest is converted into farmland

**Painpoint:**  
Lack of financial support to communities affected by environmental damage



Image credit: Forest Trends

# Payment for Eco-System Services (PES)

1 The Ministry funds the PES system through levies on polluting companies.



The PES system would help resolve externalities in the market, by charging polluting companies and using the proceeds to fund important eco-system services. In particular, the PES system will focus on two important environmental issue facing Cambodia: water overexploitation and deforestation.

2 The PES system is governed by a board of trustees, who hires a fund manager to implement the strategy.



3 The PES system will create green companies and NGOs, which will in turn create "green jobs" for households.



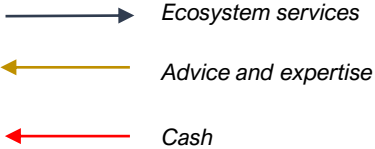
4 Two eco-system services in particular will be the focus of the PES system: enlarging water catchment areas and increasing forest cover.



5 NGOs and consultants will monitor the performance of the fund and advise on strategy.



6 Best practices will be shared between communities.



**FOCUS AREA:  
Public Health**



# Chosen Target



**Target:** Increase the financial resources available to the public healthcare system through the proper pricing of external costs.

One way to resolve external costs is through the “polluter pays” principle: the one who places a cost on a third-party pays to resolve it. Financing based on this principle can help put public services – which ultimately do the actual work of reducing the harms caused by external costs — on a stronger financial footing.





# Innovation Ideas

## Technological Innovations

### The Public Health Obligation Fund

The “standard” way to resolve external costs is the “polluter pays” principle: the organisation responsible for creating the external cost needs to pay to alleviate it. However, without proper structures in place, it can be difficult to ensure that the money collected is directed at the external harm (instead of being included in some larger pot of money for an unrelated purpose).

The **Public Health Obligation Fund** would be the mechanism through which companies pay compensation for the social costs of their production. The PHOF would improve public healthcare, especially in rural communities where lack of resources often hinder the delivery of medical services.

PHOF’s main objectives will be to procure and maintain medical supplies, train medical personnel, innovate in R&D, and invest in infrastructure and disaster assistance.

A National Committee will administer the policies and strategies of the PHOF, as well as audit its operations.

Addresses the following painpoints:

**Painpoint:**  
Lack of trained medical  
personnel

**Painpoint:**  
Insufficient health facilities to  
meet demand

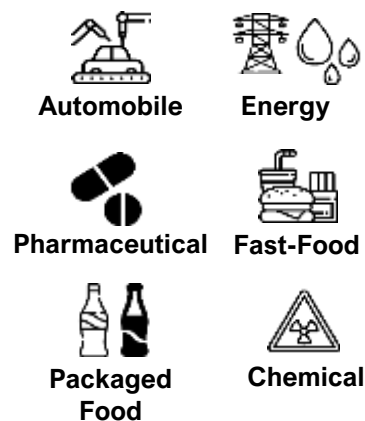
**Painpoint:**  
Insufficient medical supplies  
to meet demand



Image credit: UC Davis

# The Public Health Obligation Fund (PHOF)

2 Industries that negatively impact public health will be asked to contribute to the PHOF. The level of their contribution will be determined by NGOs and impact consultants.



National Committee

PHOF

The PHOF will help fund the expansion of rural healthcare systems by ensuring that industries with public health repercussions pay for their effects on the rest of society. This money will be invested in the countryside, reducing health inequality between urban and rural areas.

1 Overall strategy and execution will be overseen by a National Committee.

3 The PHOF will disburse money to local-level health institutions, who will spend the money in order to build capacity, train new staff, and build resiliency in at-risk communities.

Local Hospitals and Clinics

Local Medical Colleges

Local Governments




Human Capital Development



Flood assistance

← Oversight, advice and expertise  
← Cash



The image shows a detailed view of an ancient stone temple facade. The central feature is a doorway with a double-panel door, both heavily carved with geometric and floral patterns. On either side of the doorway are niches containing standing female figures, likely goddesses, also intricately carved. The entire surface is covered in complex relief work, including floral motifs, scrolls, and other figures. The stone is dark and shows signs of weathering and age. A semi-transparent white banner with a rounded right edge is overlaid on the top left, containing the text 'FOCUS AREA: Culture and Wellbeing'.

**FOCUS AREA:**  
**Culture and Wellbeing**



# Chosen Target



**Target:** Link all local community centers together to broadcast and promote art, performances, sports and recreations by 2025.

National-level consumption of intangible culture is restricted to Khmer-language popular culture, produced in its major cities. However, there is a wealth of cultural heritage and creative talent throughout Cambodia, which remains undiscovered due to the lack of mechanisms to broadcast and share it.



Image credit: Cambodia Travel



# Innovation Ideas

## Technological Innovations

### **CultureNet**

Local communities do not have the same resources for cultural development and preservation as Cambodia's major tourist sites or urban centres. Thus, much local art and creativity risks getting lost.

**CultureNet** will connect all local community centres throughout provinces, districts, communes and villages. The goal would be to provide the space for cultural development and preservation of art, music, dance, cooking, handicrafts, language, religious beliefs and other creative arts in local communities.

These local centers will provide the opportunity for local communities to develop and learn from a local practical curriculum, so they can promote and preserve local creative activities. CultureNet will also broadcast these local creative activities to a wider national audience through the mass media, such as radio, television, the internet, and so on.

This will create job opportunities throughout the cultural sector, develop creative skills in local communities and spread awareness of the value of local and indigenous culture amongst Cambodians.

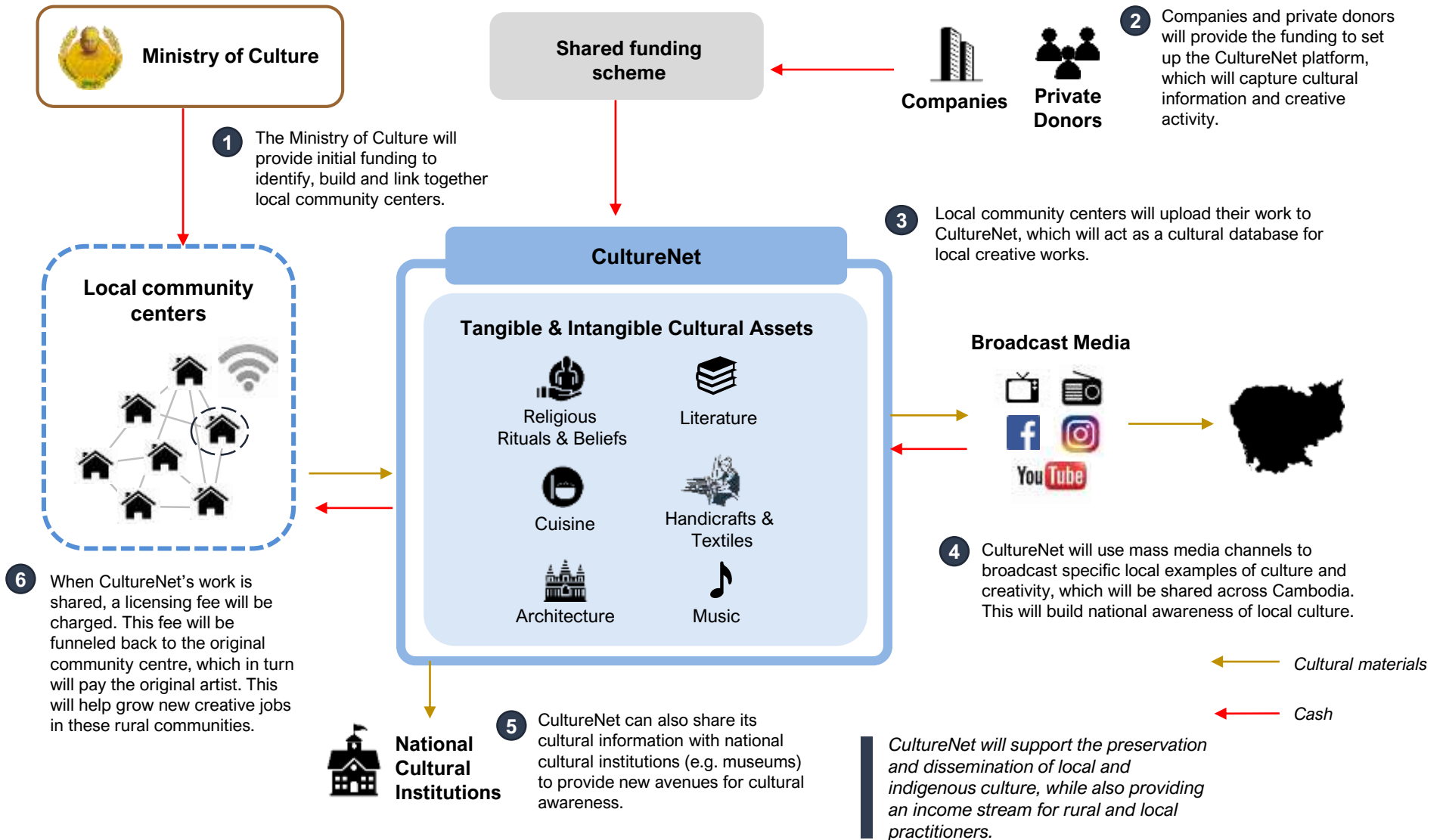
Addresses the following painpoints:

**Painpoint:**  
Limited opportunities to promote culture

**Painpoint:**  
Limited cultural awareness among Cambodians



# CultureNet





# CONCLUSION





# Conclusion

The Model of Innovation in this report proposes a fresh approach to understanding the role of innovation and technology as an effective means to address quality-of-life issues.

It starts by establishing a strong vision and proposes guiding principles for future development. These are supported by actionable targets and measurable indicators that would quantify progress towards realising the vision. Proposed targets inspire new social, policy and technological innovations.

For Cambodia, establishing an “*Ecological Civilisation*” – supporting and expanding quality of living while staying within important environmental boundaries and resource constraints – would position the country as a model for other emerging economies.

This approach offers practical solutions for governments and institutions to formulate strategies for social, environmental, economic and technological development. A strong Ecological Civilisation vision with clear targets ensures that quality of life is prioritised and new ventures are accountable to society. It allows governments to focus on their mandate of representing and guarding the public interest.

Thus, this model will be a valuable resource, not just for Cambodia, but also for other economies across ASEAN and beyond.



Image credit: Awaylands

**A model that can be replicated in other small, open and less-developed economies — not just in ASEAN, but beyond**





For more information about the 2019 ASEAN Young Leaders Programme,  
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