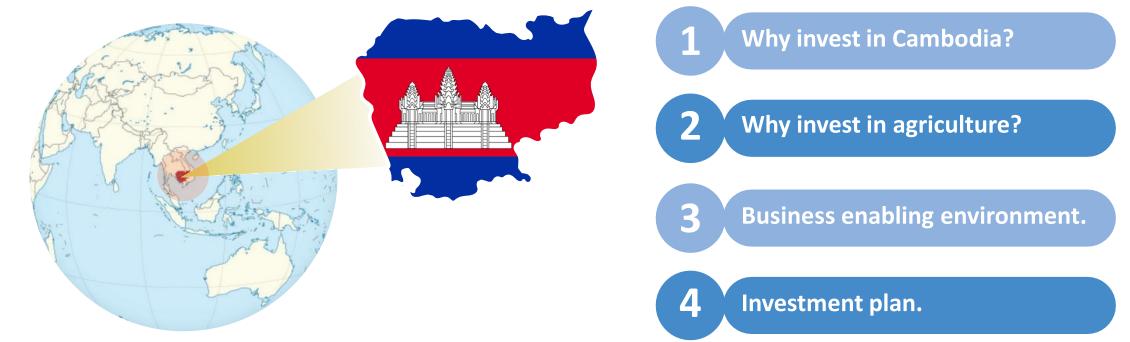


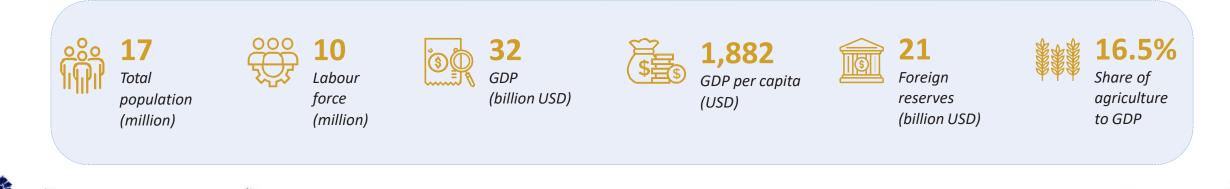
Food and Agriculture Organization of the United Nations Hand-in-Hand Initiative

# CAMBODIA'S AGRICULTURE INVESTMENT PLAN

# Hand-in-Hand Investment Forum 15-17 October 2024, Rome, Italy



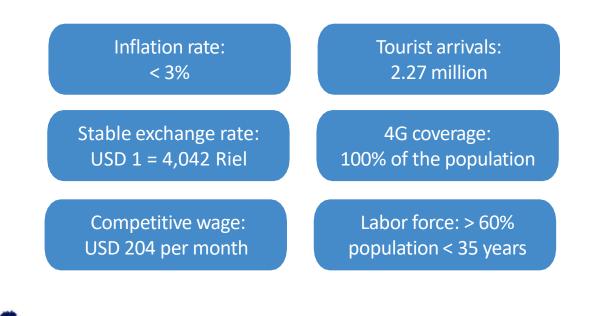
## **KEY INFORMATION FOR 2023:**

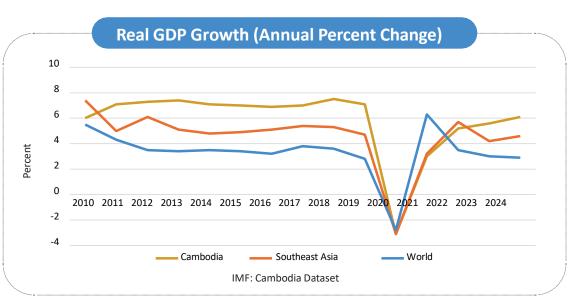


# 1. Why invest in Cambodia?

- GDP growth: 7 percent on average over the last 30 years.
- World Bank lower middle-income status in 2015.
- UN LDC graduation in 2029.

• In 2020, poverty rate is 17.8% (World Bank).







# 2. Why invest in agriculture?

The Royal Government of Cambodia in the 7th mandate has a strong commitment to agriculture development. Two out of the six priority policies of the Royal Government of Cambodia focus on agriculture development. There are three flagship programs implemented by the Ministry of Agriculture, Forestry and Fisheries.

1. Nationwide agriculture extension service (deployment of Commune Agriculture Officers).

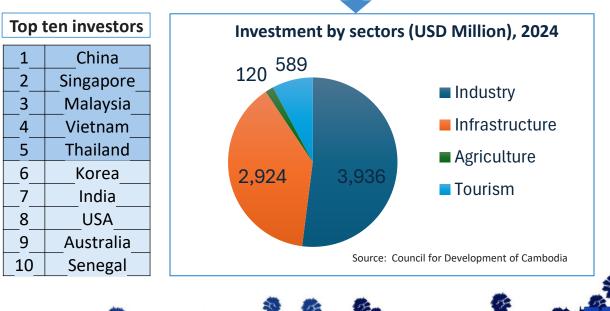
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- 2. Modern Agriculture Communities.
- 3. Agricultural price stability mechanism.

More than 80 percent of agriculture produce has been exported as raw commodities. There are opportunities for significant value creation.

Export of key agricultural commodities in 2023 2,730,825 1,961,375 μ 1,289,739 656,323 425,977 161,924 36,256 27.387 810 Paddy Fresh root **Milled** rice Cassava chip Cassava starch Raw <sup>-</sup>resh mango Dried mango Processed Rice Cassava Cashew nut Mango Source: MAFF, 2024 Investment in agrifood processing is low. With

investment, Cambodia can be a food processing and exporting country to global markets.



2

# **3. Business enabling environment**

1.

0121

#### 7 Free trade agreements

Located in the heart of Southeast Asia and with preferential free trade agreements, Cambodia has worldwide access to global markets.

#### RCEP will connect ~30% of world's population and output







**Special economic zones (SEZ)** A new regime for SEZs connecting the Cambodian agrifood system to markets through land, sea and air.

SEZ EXPORT 20.000 25% 18.000 17.215 19% 20% 16.000 14.000 12,000 15% 10.000 8.000 10% 6.000 4,000 312 5% 354 2.000 2011 2012 2013 2014 2015 2016 2017 2018 2019 Cambodia SEZ -----% Change



and elimination of tariffs.

China will offer a **97.5 percent** reduction



South Korea will offer a **95 percent** reduction and elimination of tariffs.

3. Fast, prompt and reliable service Qualified investment projects will be reviewed and approved in 23 working days.



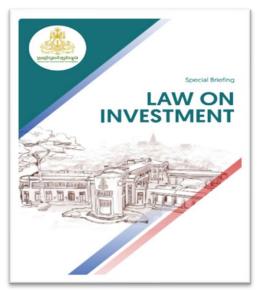






4.

Cambodia is among the region's most favorable economies for foreign investment with incentives specifically tailored to support agrifood business.



#### **Key incentives for investors:**

- Income tax exemption for up to 9 years.
- Export tax exemption.

- Full import duty tax exemption on construction material, equipment, etc.
- Value-added tax exemption for local inputs.
- 150 percent tax reduction for research and development, employee welfare, etc.











Logistics interim master plan 6. 332 projects

**USD 48 billion** 



Expressway from Phnom Penh to Preah Sihanouk province.



180km Funan Techo Canal to a deep seaport (groundbreaking in August 2024).

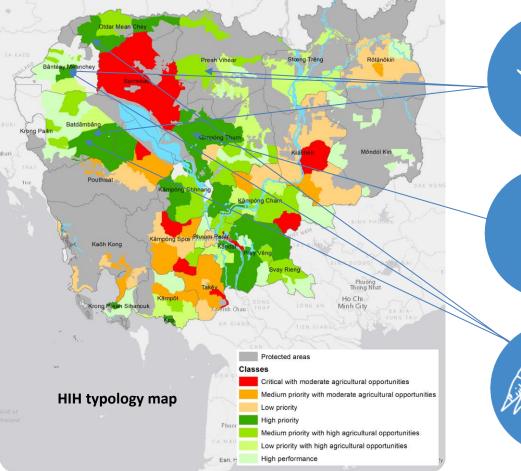


New 4F Techo International Airport (open in late 2024).



Transform to high speed railways.

# 4. Key value chains for investment



Kantharalak

101

**Rice**: Cambodia is renowned for its premium fragrant rice varieties, particularly Phka Rumduol, which has won the World's Best Rice Award five times.

**Cashew**: Cambodia is the third largest cashew producer in the world. National variety (M23) provides high yield, a large seed, desirable taste, a golden colour and good nutritional values.



**Cassava:** Cambodia is the eighth largest cassava producer in the world. Cambodia produces 14 million MT cassava per year.



# **Overview of rice value chain**

### **Current** situation

- Cambodia is the ten largest rice producer in the world: 12.5 million MT per year.
- Paddy surplus: ≈ 7 million MT per year.
- Phka Rumduol variety: the World's best rice award for 2012, 2013, 2014, 2018, and 2022.
- Sen Kro Ob variety: certified by China as the best Indica rice in 2023.

### **Existing value addition**

- Significant value-added opportunity is lost with ≈ 4 million MT raw paddy being exported.
- Limited domestic processing into secondary & tertiary products.
- Limited by-products valorization such as biomass for electricity generation, rice brand oil, fertilizer from husk, etc.

### Market and opportunities

- Government's goal: increase the export of milled rice by 1 million MT by 2030.
- Total value of global rice trade is worth USD 33 billion in 2023. Its demand increases by 1% (CAGR) or ~1.85 million MT per year.
- Cambodia has exported 650,000 MT (80% fragrant rice) to 61 countries (2023).
- Cambodia can increase more rice export to Southeast Asia (~8 million MT), China (~2.6 million MT), and United States of America (~1.3 million MT).



# Climate smart fragrant rice production and milling

### Bottleneck

- Growing different rice varieties in the same field and limited use of purified seeds.
- High interest rate loan for smallholder farmers.
- Limited access to improved agronomic practices, especially climate smart agriculture.
- Rice milling capacity in the country is lower than rice production.
- Rice export has a modest growth rate over the past five years (600,000 MT).
- Many rice millers do not have the state of art technology to generate much value from residuals.

### **Investment needed**

#### Public/private Investment to:

- Establish two modern agriculture communities for consistent rice production and collective access to low interest rate loan for 1,920 farmers.
- Provide timely extension service to mitigate risks for 2,000 ha of rice farm.

## **Risk and mitigation**

#### Risk:

Climate change: drought, flood.

#### Mitigation:

Infrastructure (small scale irrigation, water control, land levelling, etc.) is improved.

#### Private investment to:

- Build a plant to produce 10,000 MT of fragrant rice (20,000 MT of paddy) and process 5,000 MT of husk into fertilizer, charcoal etc.
- Build a facility to dry and store 20,000 MT of rice.

#### Risk:

- Price volatility.
- Electricity cost.

### **Risk mitigation:**

- Legality of contract farming is improved to assure its effectiveness.
- Husk is used to generate heat for drying paddy and electricity for milling process.

# **Climate smart fragrant rice production and milling**

Two agriculture community businesses		HIH typology map
Investment	Premium rice	Kantharalak Didar Meen Dhey
<b>vestment outlay</b> blic investment vate investment orking capital	USD 2.4 million USD 0.2 million USD 1.2 million USD 1.0 million	E K K K K K K K K K K K K K K K K K K K
NPV IRR	USD 0.1 million 16%	Tert Pouthsat Kämpöng Chinnerg Kämpöng Cham BINK PHOEs
arm size	2,000 ha	Kampol
virect beneficiaries	1,920 farmers	Krong Filen Signouk 20 min Chau That Lo No An Minh City Ba Black Vung Tat An GIANG S.
ndirect beneficiaries	5,952 people	Critical with moderate agricultural opportunities
Discount rate: 12% Period: 10 years		Cut of the diam priority with moderate agricultural opportunity         Cut of the diam priority with moderate agricultural opportunity         High priority         Medium priority with high agricultural opportunities         Esr., High priority

RICE

One rice milling factory					
Investment outlay		USD 20 million			
Processing capacity		10,000 MT of milled rice per year			
	NPV	USD 1.6 million			
Business viability	IRR	12%			
	B/C	1.24			
Direct beneficiari	es	73 personnel			
Indirect beneficiaries		13,026 people			
Discount rate: 1 Period: 20 year	-				



# **Overview of cashew value chain**

### **Current situation**

- Cambodia is the third largest cashew producer in the world: ≈ 800,000 MT per year.
- Higher yield per hectare compared to global average.
- Largely export raw with USD 838 million worth of raw cashew nuts export in 2023.
- Farmers start improving their production for high quality cashew.

### **Existing value addition**

- Significant value-added opportunity is lost as less than 15% of cashew is processed in Cambodia.
- Small emerging processing initiative to process cashew into secondary and tertiary products such as cashew cheese, butter, and milk.
- Financial institutions and banks have increased loans to cashew storing and processing businesses.
- A top priority commodity by the government to foster investment in local processing.

### Market and opportunities

- The total value of global cashew export is worth USD 8.3 billion (2022) and forecasted up to 11 billion by 2030. Its CAGR is 4.5%.
- Cambodia has exported raw cashew to Vietnam (USD836 million), and processed cashew to Thailand, Japan, China, USA, Malaysia, South Korea and Czech Republic (USD 2 million) in 2023.
- Cambodia can export more cashew to top six markets (50% of global import) such as USA, Germany, Netherland, China, Turkey, and United Kingdoms.



# Climate smart cashew production and cashew processing

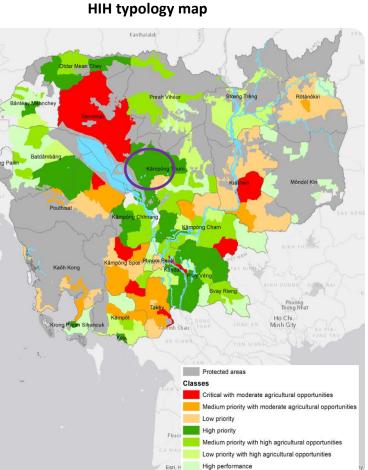
Bottleneck	Investment needed	Risk and mitigation
<ul> <li>Fund shortage: cashew planting requires upfront investment cost and a waiting period (4-5 years).</li> </ul>	<ul> <li>Public/Private investment to:</li> <li>Establish two modern agriculture communities for access to low interest loan for 2,400 farmers.</li> </ul>	<ul> <li>Risk:</li> <li>Climate change affects cashew productivity (occurrence of insects).</li> <li>Mitigation:</li> <li>Good Agriculture Practices are applied to mitigate risks.</li> </ul>
<ul> <li>Cashew processing capacity in the country is low.</li> <li>Cashew apple are left in field or not utilized.</li> <li>Traditional cashew processors do not have quality assurance. Products are sold without premium.</li> </ul>	<ul> <li>Private investment to:</li> <li>Build a plant to process 2,500 MT of high quality cashew (10,000 MT of raw cashew) and process 5,000 MT of residuals into oil.</li> <li>Build a warehouse to dry and store 10,000 MT of cashew.</li> <li>Build a quality assurance system in the cashew processing plant.</li> </ul>	<ul> <li>Risk:</li> <li>High electricity cost.</li> <li>Mitigation:</li> <li>Working capital to buy and store cashew.</li> <li>Cost saving technology (solar energy) or electricity generation from biomass is used.</li> </ul>

# **Climate smart cashew production and cashew processing**

### Two agriculture community businesses

Cashew

Investment	Cashew
Investment outlay Public investment Private investment Working capital	<b>USD 5.6 million</b> USD 0.2 million USD 2.2 million <i>USD 3.2 million</i>
NPV IRR	USD 0.4 million 20%
Farm size	4,000 ha
Direct beneficiaries	2,400 farmers
Indirect beneficiaries	7,440 people
Discount rate: 12% Period: 10 years	,



#### **One cashew processing factory**

Investment outlay		USD 17 million
Processing capacity		2,500 tonnes per year
	NPV	USD 5 million
Business viability	IRR	26%
	B/C	1.5
Direct beneficiaries		621 personnel
Indirect beneficiaries		8,187 people
Discount rate: 12% Period: 20 years		



# **Overview of cassava value chain**

### **Current situation**

- Cambodia is the eight largest cassava producer in the world: ≈ 14 million MT per year.
- A preferred crop for farmers, and a major source of their income.
- Largely export as fresh roots and cassava chip with over USD 1 billion export value.

### **Existing value addition**

- Significant value-added opportunity is lost as only about 20% of cassava is processed domestically.
- Cassava starch has been used at a remarkable growth rate for bakery, medicine and industries in the country.
- Cassava residuals are processed into animal feed and fertilizer. Its use has increased in recent years.
- Cassava starch is good input for food, beverage, bioethanol, industry, and medicines.

### Market and opportunities

- Global cassava starch is worth USD 4.5 billion in 2023. It is forecasted to increase up to 6.4 billion by 2030 at 5.5 growth rate (CAGR).
- Cambodia has exported starch 57,000 MT to China, India, Singapore, Italy Malaysia, Netherland, Canada, etc.
- Cambodia has opportunities to export its high quality cassava starch to China (4.3 million MT), Malaysia (0.2 million MT), Philippines (0.13 million MT), Japan (0.12 million MT), and USA (83,000 MT).
- Cambodia has FTA with China (zero tax) and SPS Protocol in place.



# Sustainable cassava production and high quality starch

### Bottleneck

- Mosaic and witches broom are major threats to cassava production.
- Limited supply of clean planting materials (cassava stems).
- Trends of yield decline in some areas due to improper agronomic practices.
- High quality cassava starch are produced in small quantity in the country.
- Most cassava residuals have not been fully processed into valuable byproducts.

### **Investment needed**

#### Public/Private investment to:

- Establish two modern agriculture communities to join effort for disease control and supply clean planting materials for 2,400 farmers.
- Train farmers and extension officers on sustainable agronomic practices (yield improvement techniques).

#### Private investment to:

- Build a plant to process 45,000 MT of cassava starch (~180,000 MT of fresh tubers) and produce 50,000 MT of animal feed/fertilizer per year.
- Set up a biogas/anaerobic digestion system to generate clean energy from polluted water such as heat for drying starch and electricity for starch plant.

### **Risk and mitigation**

#### Risk:

Disease infected planting materials are sold and distributed.

#### Mitigation:

Farmers are trained to assess healthiness/cleanliness of planting materials and procure from reliable suppliers.

#### Risk:

Farmers sell their produce to traders once the price is high (side selling).

#### Mitigation:

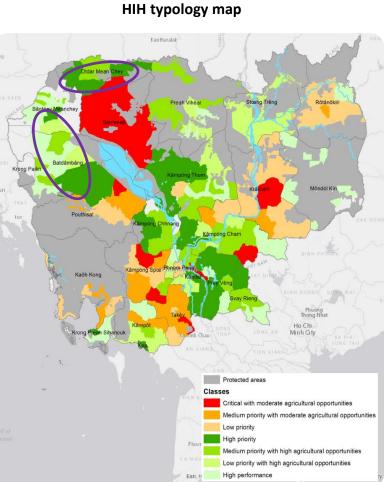
Legality of contract farming is improved to ensure its effectiveness.



# Sustainable cassava production and high quality starch

### Two agriculture community businesses

Investment	Cassava
Investment outlay	USD 7.4 million
Public investment	USD 0.2 million
Private investment	USD 4.0 million
Working capital	USD 3.2 million
NPV	USD 1.4 million
IRR	29%
Farm size	4,000 ha
Direct beneficiaries	2,400 farmers
Indirect beneficiaries	7,440 people
Discount rate: 12% Period: 10 years	



#### One cassava processing factory

Investment ou	Investment outlay	
Processing capacity		45,000 tonnes of starch per year
	NPV	USD 23 million
Business viability	IRR	24%
	B/C	1.6
Direct beneficiar	226 personnel	
Indirect beneficiaries		14,727 people
Discount rate: 12% Period: 20 years		

mmary	USD 104,4 million Investment	USD 1 million Government budget (project)	USD 103,4 million Investment required	NPV: USD 31.5 million	Average IRR: 21%	Direct: 7	beneficiaries 7,640 people 56,772 people	USD 322 Per capita Income (average)	-3,490 tCO2-eq Sequestrate
Rice II	t <b>ment case</b> nvestment ment required:		Cashew	ent case Investment ent required:			Cassa	tment case wa Investment tment required:	
USD 2	2.4 Million		USD 22.6	5 Million			USD 59.4 Million		
NPV : USD 1	7 Million		NPV : USD 5.4 Million			NPV : USD 24.4 Million			
IRR:			IRR:			IRR:			
14%			23%	23%			26.5%		
Total b	eneficiaries:		Total beneficiaries:				Total beneficiaries:		
20,97	1 people		18,648 p	18,648 people			24,793 people		
Per ca	pita income:		Per capita income:			Per capita income:			
US\$12	22/Person		US\$524,	US\$524/Person		US\$320/Person			
Total (	Carbon Emissions	5	Total Carbon Emissions		Total Carbon Emissions				
-624 t	CO2-e		-1,266 t	СО2-е			-1,60	0 tCO2-e	

# New investments on key commodities targeted by HiH



Private investment project (2024)	Nb. of Company	Committed budget (\$ million)
Low carbon rice production	1	20
Cashew processing plants	2	10
Mango processing plant	1	26

## NIKKEI **Asia**

#### AGRICULTURE

Japan helps Cambodia toward its goal of being top cashew exporter

Real estate developer Mirarth completes ASEAN country's processing center The Council for the Development of Cambodia (CDC) approved USD 26 million mango processing project in Kampong Speu province, expected to generate 1,450 jobs.

https://cdc.gov.kh/km/recent-news/cdc-investment-news59/