

GrowAsia



# Angkor Harvest:

## A Case Study on Responsible Investment into Mango in Cambodia

ASEAN Guidelines on Promoting Responsible Investment in Food, Agriculture and Forestry

With the technical support of:



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# Executive Summary

This case study outlines the journey of Angkor Harvest, a mango production and processing company in Cambodia which resulted from the project development assistance of Infunde Development and investment from InfraCo Asia, a company of the Private Infrastructure Development Group (PIDG).

Mango is one of the largest fruit crops for export in Cambodia, exporting 945,000 tons in 2020 valued at USD 470 million. Although the export market for mango generates high value, intermediary traders facilitate the sale of mango to end markets, which reduces the profit for Cambodian farmers. Through Angkor Harvest's processing facility and other infrastructure, high quality mangoes can be processed in Cambodia and directly exported to the global market, cutting out the intermediary and increasing farmers' profit share and income.

**The key learning emerging from this investment is that strong engagement of stakeholders – community and government – helps achieve impact targets and improves evaluation strategies.**

**Read the full case study to learn more about how Infunde manages the development of Angkor Harvest and how InfraCo Asia sees financial returns on their investment, the [ASEAN Guidelines on Promoting Responsible Investment in Food, Agriculture and Forestry](#).**





# Investor Profile

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Angkor Harvest is a mango processing company registered in Cambodia in 2018, which has its headquarters based in Phnom Penh, and processing facility based in Kampong Speu Province.

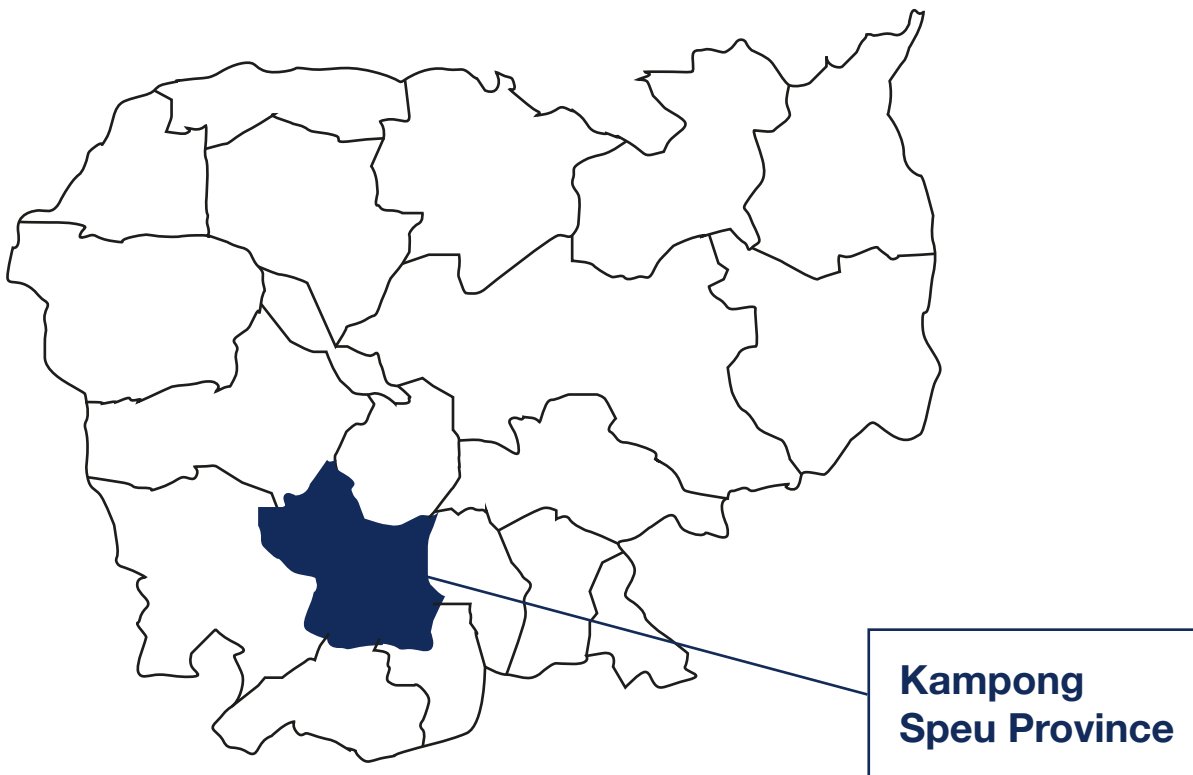
The investment towards Angkor Harvest is developed and managed by Infunde Development and funded by InfraCo Asia – a company of the Private Infrastructure Development Group (PIDG). PIDG investments focus on improving livelihoods, by making initial investments with an aim to attract and mobilize private sector capital (see Figure 1).

Infunde Development is responsible, on behalf of InfraCoAsia, for project origination, pre-financial close, project development, EPC (Engineering, Procurement and Construction) management and financial structuring activities in Southeast Asia.

The mango processing facility is the first commercial-scale mango export plant to operate without plantation ownership - which means sourcing directly from existing smallholder farmers - to improve farmer income and develop communities. Part of Angkor Harvest's investment commitment is utilizing the Cambodian Good Agricultural Practices (CamGAP) in its supply chain to further improve farmer practices and yield, as well as adopting food safety standards in the facility to access export markets.

## LOCATION

# Kampong Speu Province, Cambodia



## Timeline

2017

Infunde Development began discussing the investment into Angkor Harvest

2018

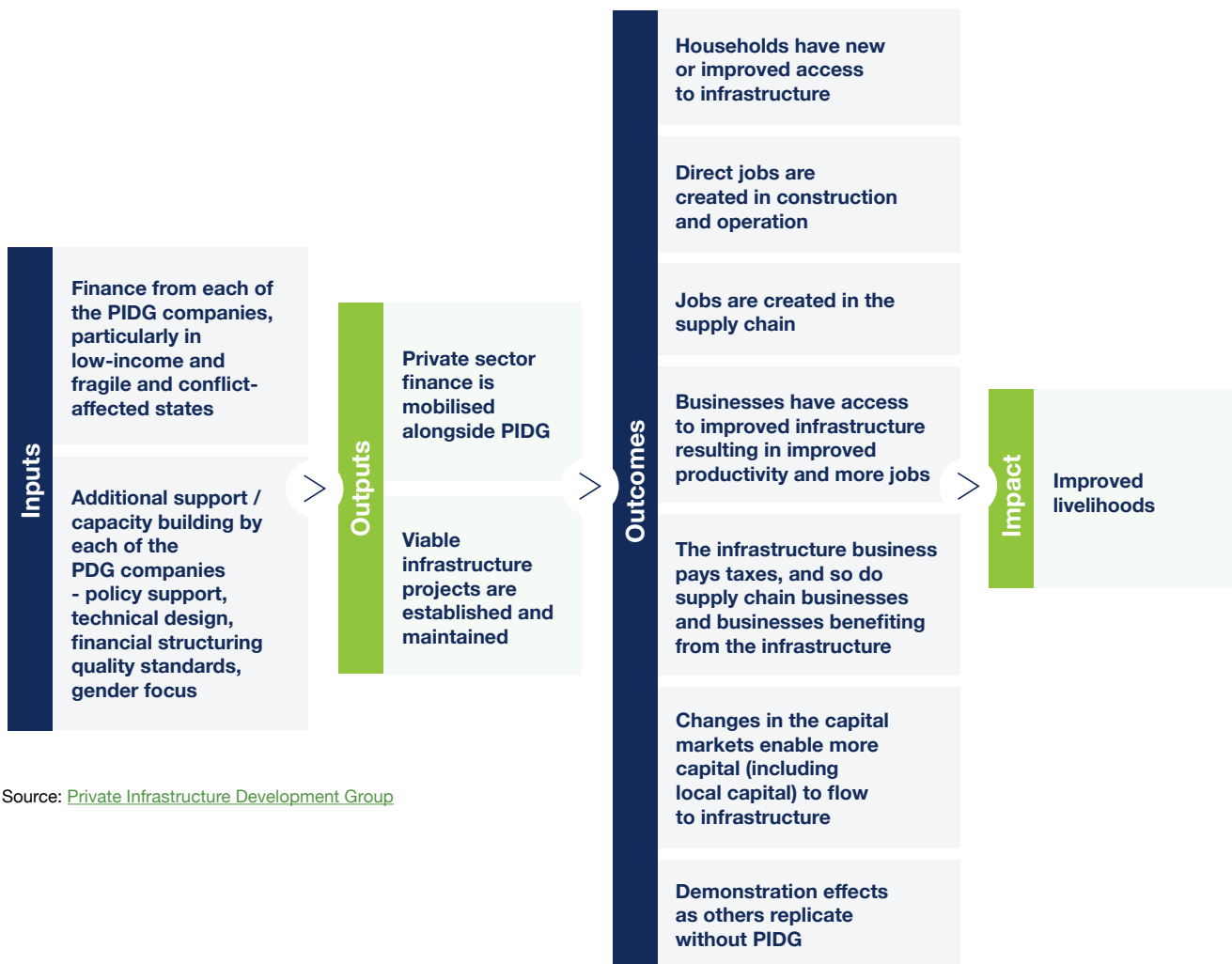
The initial stage of investment became operational. This included construction and operation of a mango cleaning, sorting and packaging facility.

The second stage, to construct and operate a processing facility, has not yet started (goal is 2022).

InfraCo Asia through Infunde Development was attracted to investing in the Cambodian market due to a desire to use development infrastructure to create economic impact and social benefit, which are both development goals mandated by PIDG.

**The market conditions - a ready supply of mangoes but lack of infrastructure access for farmers to directly supply to international markets - provided the core business case for the investment.**

Figure 1. Delivering Impact through PIDG’s Theory of Change



Source: [Private Infrastructure Development Group](#)

Figure 2. Financing structure of PIDG



Source: [Infraco Asia Brochure](#)

# Investment Profile

InfraCo Asia signed a Joint Investment Development Agreement (JIDA) with project partner, Seasonfresh (Cambodia) in March 2018 to jointly develop the project through the project company, Angkor Harvest. The overall project is divided into two stages of infrastructure development, construction, and operation. Stage 1 is the mango cleaning, sorting, and packaging facility, and Stage 2 is the mango processing facility. Both stages aim to reach commercial scale. The achievement of Stage 1 objectives will trigger the capital for Stage 2. Infunde is still discussing with various investors about equity investment at this stage.



## Investor

InfraCo Asia and Seasonfresh (Cambodia)



## Commodity / crop

Mango



## Any other financiers involved (banks, DFIs, etc)

Private Infrastructure Development Group (PIDG)



## Total amount of the investment (planned)

Stage 1: USD 9.8 million (2018 – 2021)

Stage 2: USD 10 million (2022 - 2025)



## Percentage invested by each investor type (agribusiness, government, financiers, etc)

Majority investment from InfraCo Asia

# Investment Objectives

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The primary investment objective of the formation of Angkor Harvest was to develop a packaging and processing facility to link Cambodian mango farmers to international markets.

The long-term objectives of the investment include the following:

- Improve farmer household livelihoods and create jobs
- Improve farmers' access to:
  - Infrastructure services
  - International markets
  - Stable product offtake
  - Technology and technical support on overall farm management
- Provide support for farmers on adopting Cambodian Good Agricultural Practices (CamGAP)
- Secure food safety standards certification in processing facility
- Improve water management by using grey water strategies

The objectives are influenced by PIDG's theory of change as well as development impact goals from InfraCo Asia.





# Investment Process

The process began with Infunde's initial assessment and screening of the Cambodian mango market. This process took six months which included due diligence on the land purchase under government domain. Dispute resolution and collaboration with the national and local governments was established.

**Initial assessment:** This included community profiling of farmers and their households – including women – to identify their interaction in the mango supply chain. An environmental impact assessment (EIA) was also conducted during the land assessment. The results were approved by the Ministry of Environment and validated through discussions with other professional networks and private sector players.

**Feasibility study:** Infunde contracted Agri-Food Cambodia International (ACI) to conduct a detailed feasibility study to confirm the viability of the business concept, including an export market assessment of fresh and processed mangoes. The results were compiled by Infunde as part of their full business case report to InfraCo Asia.

**Approval Process:** InfraCo Asia gave the final approval for the investment based on the three pillars of their core project selection criteria: (1) development impact; (2) additionality; and (3) commercial viability. This final sign-off allowed Infunde to launch Stage 1 implementation, including business registration of Angkor Harvest and infrastructure development.

## **Farmer Engagement and Monitoring:**

Angkor Harvest uses InfraCo Asia's internal monitoring and evaluation system to measure both the ongoing project viability as well as its impact related to farmer engagement and application of the Cambodia Good Agricultural Practices (CamGAP). Their farmer engagement approach includes identifying gender roles in the community that could diversify their workforce, particularly at the processing plant. By training farmers in grading practices and sustainable farming techniques, Angkor Harvest increases the quality and grade of farmers' yield, which generates a higher export value for the company and increased income for farmers.

**Challenges:** The implementation phase did encounter some challenges, including delays from remediation with an informal settler who had moved on to Angkor Harvest's land while purchase negotiations were underway. The negotiations involved the landowner and local authorities and eventually the Angkor Harvest team chose to purchase a different parcel of land for the processing facilities.

COVID-19 created additional challenges, including outbreaks that slowed facility construction and increased costs of shipping containers for export. Yet the slowed process allowed for deeper engagement between the farming communities and the company.

# Investment Results

Angkor Harvest aims to increase its mango exports to complete Stage 1 by 2021 and launch Stage 2 by 2022.

The investment has yet to achieve financial return, in part due to high operation costs such as shipping due to COVID-19. Some long-term development impacts are yet to be met including farmer adoption of CamGAP and food safety certification.

Objective	Results to date
<b>Develop infrastructure</b>	Processing facility built with capacity of 280,000 tons/per year of fresh mangoes for export
<b>Establish linkages to international markets</b>	Exports to Singapore began in Q1 2021. Mangoes sold at Chip Mong and Super-Duper Supermarkets
<b>Engage 3,650 smallholder farmers</b>	Stage 1 has directly impacted 3,450 mango farmers, and Stage 2 will increase the number to 3,650
<b>Build capacity for farmers to adopt CamGAP</b>	85 farmer leaders trained in CamGAP as of 2020-2021
<b>Create 40 long term jobs</b>	10 people hired and retained for long-term jobs as of 2020
<b>Create 200 short term jobs during construction</b>	250 people hired and retained for short-term jobs as of 2020-2021
<b>Improve water management by using grey water strategies</b>	New factory uses recycled water

# Alignment to ASEAN RAI

The ASEAN Guidelines on Promoting Responsible Investment in Food, Agriculture and Forestry (ASEAN RAI) is a regionally-adopted, voluntary framework to guide investment decision making for both private and public sector actors.

ASEAN Member States have agreed to use these Guidelines to create or update legally-binding policies – which means agribusinesses and investors who demonstrate alignment to the ASEAN RAI are better prepared for these policy changes.

The 10 principles of the ASEAN RAI describe the impacts those agricultural investments may have at the community, local, or national level.

Figure 3 (right) outlines the ASEAN RAI principles. When a company like InfraCo Asia makes a pre-investment commitment to follow responsible environmental, social and governance practices, they are more likely to be aligned to the ASEAN RAI.

This investment retroactively applies the ASEAN RAI to InfraCo Asia’s investment practices and outcomes, which are aligned to (some aspects of) **9 out of 10 Guidelines**. If ASEAN RAI had existed before investment into InfraCo Asia’s project - Angkor Harvest, it would have helped them: evaluate food security among smallholder farmers and the community through impacts on livelihood (Guidelines 1 and 2), integrate community engagement activities encouraging participation of marginalized groups (Guideline 3), and integrate additional, targeted climate-smart agriculture practices (Guideline 7).

The next page outlines the alignment between the company’s practices and the ASEAN RAI principles.

**Figure 3. 10 Principles of the ASEAN RAI**



## Alignment of InfraCo Asia's Investment to ASEAN RAI



### Guideline 1

**Food security and nutrition (local and national)**

With the assumed increase in farmer income by producing higher quality mangoes, the team has observed better food security and nutrition within the farming communities. Women workers in the processing facility turn lower grade mangoes into purees to sell to for local consumption.



### Guideline 2

**Sustainable, inclusive economic development and poverty eradication, including: improved producer livelihoods, fair contracts, employment and wages, worker health and safety**

Angkor Harvest trains farmers on CamGAP and how to increase the quality of their yield, then sets up contracts at a fair and guaranteed price for the higher-grade mangoes. Farmers can earn a 10-cents more per kilo on high grade mangoes, thereby improving their livelihoods.



### Guideline 3

**Equality, engagement and empowerment of women, indigenous communities, youth, marginalized communities**

Angkor Harvest intentionally supports women's inclusion in decision-making and aims to provide meaningful employment for women. The company examined the role of women in the family and value chain during community consultations, during which they identified grading mangoes at the main facility was an attractive employment opportunity. During harvest season, the facility employs 150 women (60% of the total 250 short-term employees).



### Guideline 4

**Respect for tenure of land, fisheries and forests**

Angkor Harvest conducts due diligence on land tenure processes, which included dispute resolution and collaboration with the Royal Government of Cambodia. When they faced dispute on the original land parcel for facility construction, the company chose to purchase an alternative site.



### Guideline 5

**Conservation of natural resources, especially forests**

Angkor Harvest trains farmers on water management and conservation practices. They also created mini water reservoir/pond to maintain water to be used during dry season. The company is investing in drip irrigation with farmers to manage water use, and at the company level, the new factory has a recycled water and waste management policy, where grey water is cleaned and used for food production. A full environmental impact assessment prior to purchasing land was also conducted.



### Guideline 6

**Sustainable and appropriate use of technologies**

Angkor Harvest's lead agronomists support farmers to identify and use technologies that monitor and reduce the cost of inputs and farm management. For example, the company plans to invest in modern drip irrigation with support from solar energy.



### Guideline 7

**Resilience to climate change, natural disasters and other shocks**

Angkor Harvest has set long-term goals to combat climate change, including increasing resilience, mitigation and adaptation to extreme weather, natural disasters, and other shocks. By helping farmers apply CamGAP, the company demonstrates its commitment to climate change resiliency.

## Alignment of InfraCo Asia's Investment to ASEAN RAI



### Guideline 8

**Respect for the rule of law and incorporation of inclusive and transparent Governance structures, processes and grievance mechanisms**

Angkor Harvest has incorporated inclusive and transparent governance structures, processes and grievance mechanisms, as part of the mandate set by PIDG and InfraCo Asia. In addition, their approach when mapping local communities reflects the company's dedication to transparent processes. The company works with farmer households to identify dynamics, roles and responsibilities, and through this engagement and knowledge generation, the company intentionally increased women's participation in their mango value chain.



### Guideline 9

**Assess and address environmental and social impacts and monitor performance**

Angkor Harvest treats its environmental and social impact assessments and management plans as dynamic tools to regularly monitor environmental and social performance across their operations together with local government stakeholders. Compliance to local regulations and regional networks and frameworks allows Angkor Harvest to remain competitive amongst other private actors in the sector.



# Public policy recommendations

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During the early stages of the investment, there was lack of public infrastructure such as good roads and cold storage facilities. Angkor Harvest noted that policy actions supporting such infrastructure investments would be a good step forward for sustainable agriculture development. Local and national governments and associated line agencies should facilitate this ease of doing business.

The company pointed out that additional government support to promote CamGAP (e.g. training for farmers) would help to improve productivity and yield, therefore promoting positive economic and environmental impact, including the proper use of inputs and water resources. With public policies that promote CamGAP to help raise the quality of mangoes for export, there would be greater acceptance and demand from international buyers.



# Ensuring long-term sustainability

To ensure long-term sustainability, Angkor Harvest trains farmers to directly improve production practices. Farmers in the Angkor Harvest supply chain will continue to receive above market price for their higher quality production as a result of following CamGAP.

To demonstrate the consistent quality of their mangoes for export, Angkor Harvest hopes to achieve food safety management system certifications including [Hazard Analysis Critical Control Point \(HACCP\)](#), [EU Hygienic Food Practices and Standards](#), and [ISO 22000:2005](#).



# Learnings for the future

Angkor Harvest plans to expand to more international markets (original objective) by moving into Stage 2 of their investment (i.e. construction of a processing facility) while continually engaging with the farming community to achieve impact targets. The company shared this advice for future agribusiness investments: “Map your ecosystem and check for existing and future supports, to ensure smooth set ups, including for engagement with national authorities.”



“

With support from Grow Asia through the ASEAN RAI, Angkor Harvest will become a role model in sustainable business practices in the agricultural processing sector in Cambodia and open up opportunities for the company in global market supply chains.

”

– **Sovathara Heng, Investment Manager (Cambodia), Infunde Development**

## References

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[Cambodia Mango Processing Facility – Project Overview](#)

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