



The App for Homestead Sustainable Agriculture produce Procurement and E-Payment (A-HOPE)

3rd Organic Asia Congress
September 21, Philippines



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Small Farms and Organic Homesteads in Asia: Missing the Bus!



Organic Markets – Growing exponentially in Asia and commanding Price Premiums.

Small Farmers are missing out on this opportunity!

Organic Homesteads and Small Farms – Require Two Things:

A



Modern Sustainable Agricultural Practices

B

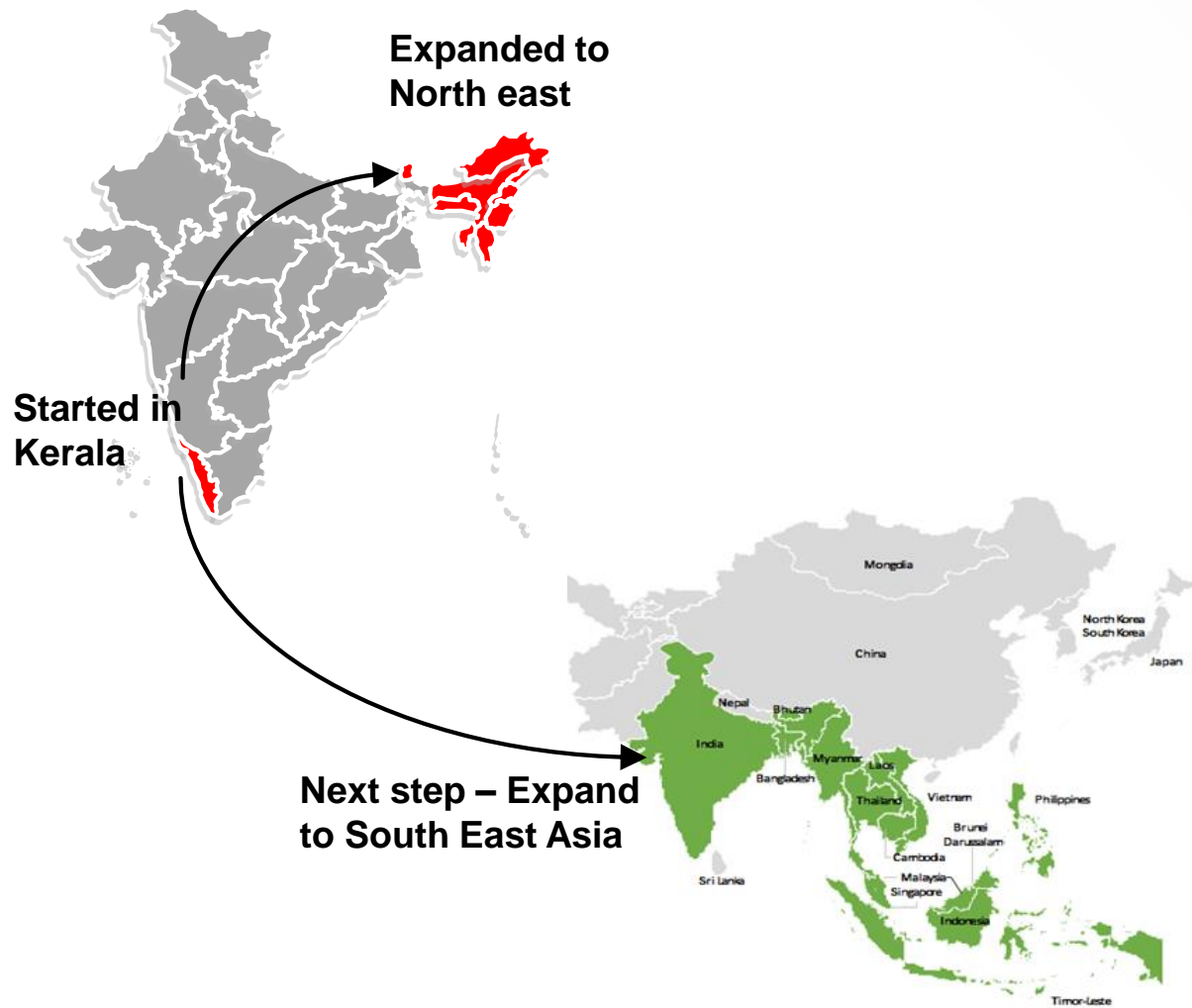


Market Access - Procurement, Traceability and Organic Certification suited for small farmers.

Focus of this presentation



What do smallholder farmers need



Agricultural context of Homesteads/ Small Farmers in Asia



Fragmented Land Holding

Increased travelling time between fields, leading to **lower labour productivity and higher transport costs.**



Need for an appropriate procurement model

Current procurement model suited for large plantations – **Need for customized model for small holding**



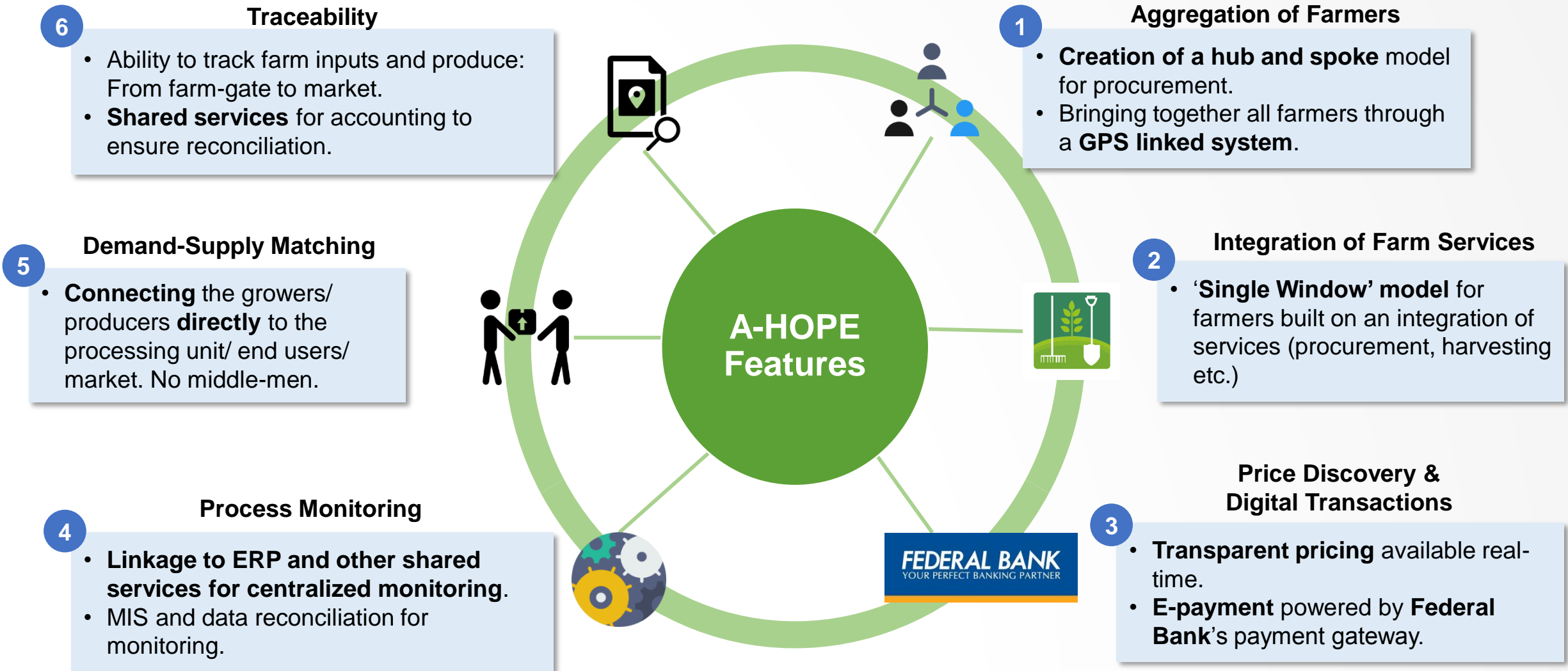
With an **average landholding size of 1 hectare**, there is a need for a dedicated, **appropriate procurement model for Homesteads/ Small Farmers in Asia** that ensures

Traceability, Quality Control, and Transparency.

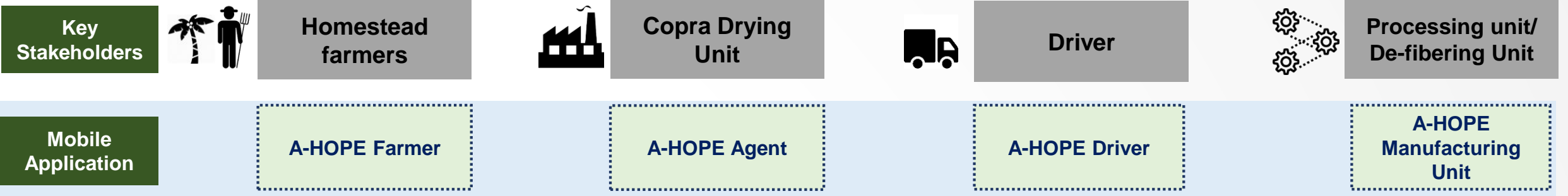
Market Access – Procurement, Traceability, Organic Certification



A-HOPE: Mobile-based, integrated transformation

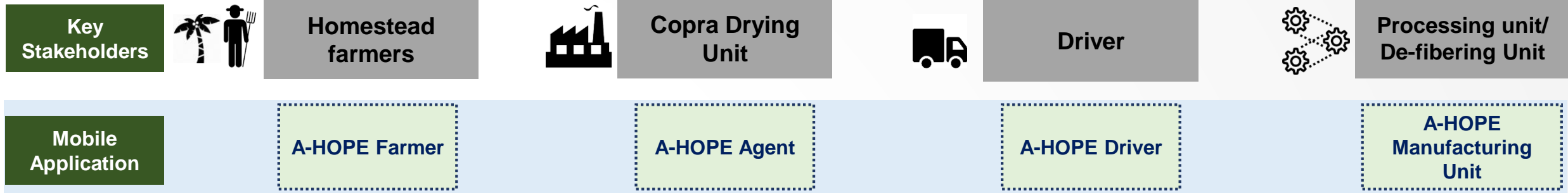


A-HOPE: Key stakeholder and How it works



Click [here](#) to see video

A-HOPE: A model of integration of Coconuts and Coir in North Kerala

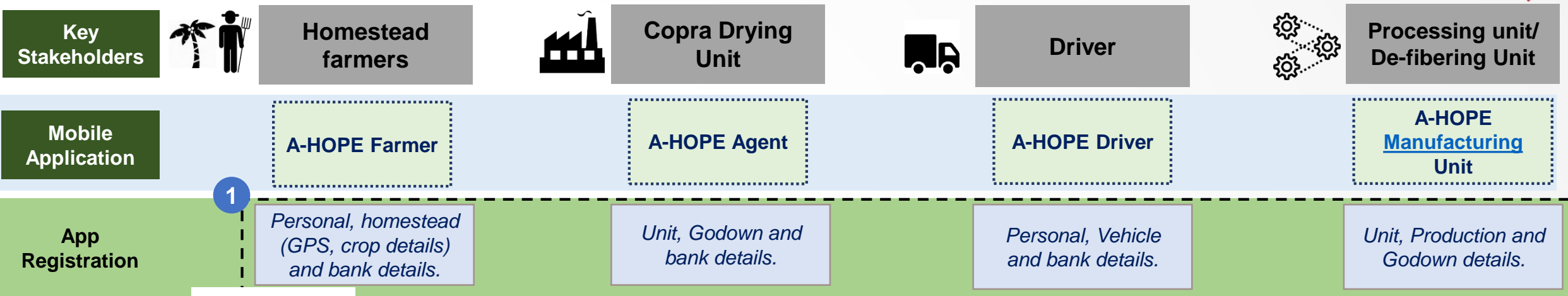


Piloted in Perambra, a town in Kozhikode district with the **Perambra Coconut Producer Company Ltd. (PCPCL)**. PCPCL, a collective of **25,000 homestead coconut farmers** also has a de-fibering unit and coconut oil manufacturing factory.

A-HOPE in Perambra

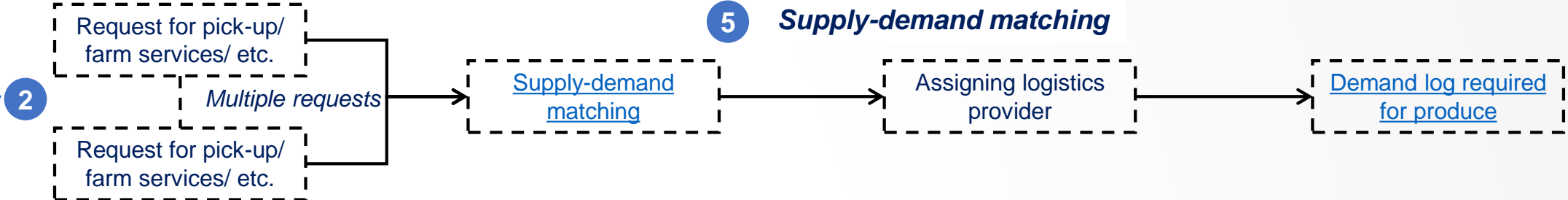
- 1 Aggregation of Farmers:** A-HOPE links all the 25,000 coconut farmers and the manufacturing units, by creating a GPS linked hub and spoke model.
- 2 Integration of Farm Services:** A-HOPE is the 'Single Window' for multiple farm services like harvesting (*shared automatic climbing*), maintenance of farm etc.
- 3 Price Transparency & Digital Transactions:** Transparent prices of the coconut (and husk) – as per the *Vadakara Market*. All payments are on a *Federal Bank payment gateway* (our banking partner for the pilot)
- 4 Process Monitoring:** Ability to capture details of farm inputs like source of input, frequency of application etc.
- 5 Demand- Supply Matching:** The *Farmers sell to the Copra Drying Units, the CDUs to the Factory*. This is managed on the app.
- 6 Traceability and Accountability:** GRNs and receipts of copra and oil mapped to their corresponding batches, from farm-gate to market.

A-HOPE: Work Flow in Perambra

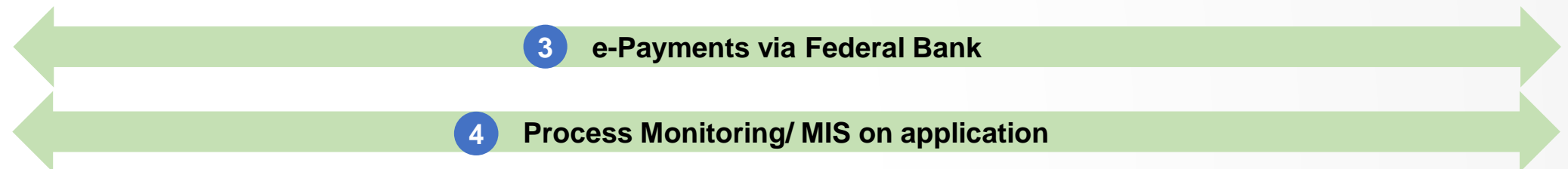
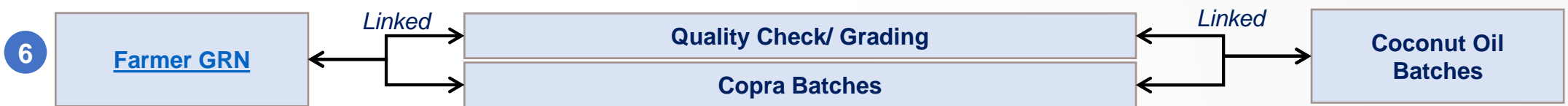


Aggregation

Integrated Farm Services



Traceability



A-HOPE: Technical details and FAQs

Q Does the Farmer need to have a smartphone?

A **No.** We recognize that all Farmers do not have smartphones. A-HOPE will have a call centre (for booking requests, queries, etc.) and SMS-based updates for Farmers without smartphones.

Q Does the app work on low-end smartphones?

A **Yes.** The app works on all android smartphones. There is no RAM or Processor requirement.

Q Does the phone require 4G network to download the app?

A **No.** The app can be downloaded on any 2G or 3G connection. Any public wi-fi can also be used.

Q Is the app available on iOS?

A No. Currently, the app is available only for android phones.

Technical Details

Development tools used:

1. Microsoft .Net (For API)
2. Angular 5 (for Web Application)
3. Visual Studio IDE
4. ReactNative

Database: Postgresql

Hosting Server: Windows Cloud server from Amazon.

Way Forward

- We are in discussion with the Ministry of Agriculture, India for roll out in select states in India
- We are in discussion with the International Fund for Agriculture Development (IFAD) for a pilots in Asia with focus on Philippines and India.
- If you require further information on A-HOPE, Please contact us at info@mbiom.com; We will send updates to those interested on the launch of app on the Google Play store (free download).

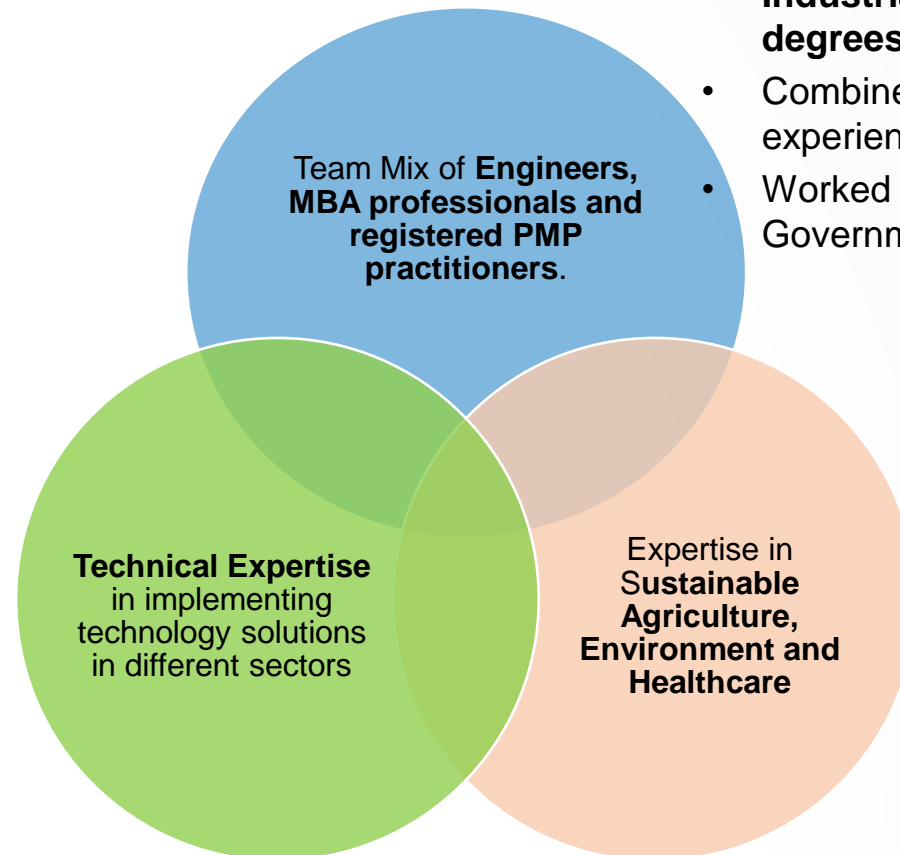
mByom: An implementation-focussed Consulting firm



mByom is an implementation-focused Consulting Firm working in the area of Sustainability: across Agriculture, Environment and Healthcare & Nutrition. The mByom team has extensive Consulting experience across India.

***The mByom team is a unique mix, well-positioned to help clients.
Our Differentiators have been illustrated below:***

- **Successfully implemented technological solutions** in hospitals, government organizations and private sector organizations.
- Hands-on experience in implementing **customized ERP modules** across all departments of an organization.
- Also **implemented Electronic Health Records** hospitals in India, USA and Italy.



- **Industrial and Electrical Engineers with MBA degrees and registered PMP practitioners**
- Combined experience of 50+ years of Consulting experience.
- Worked across a wide spectrum of clients in Government and in the Private sector.
- **Currently working with the Government of Kerala in reviving the Coir Sector in Kerala.**
- **Constantly engaged with the Kerala State Planning Board, the M. S. Swaminathan Research Foundation, etc. on these areas.**
- mByom is also working with a private Electronic Health Records company in transforming healthcare and hospital services in India.

Brief profile of Ajit Mathai

Ajit Mathai, Founding Partner, mByom



- 30 years of experience.
- Alumnus of **REC Trichy and XLRI Jamshedpur**. Golden Jubilee Distinguished Alumni Award- NIT, Trichy
- Worked 15 years in **Deloitte** and other “**Big Four**” Consulting Firms.
- **Hands-on experience of running produce collection centres and organic farms..** Interacted widely with growers and suppliers.

Ajit is the **Founding Partner at mByom Consulting and Management Services LLP**, with 25+ years of diverse experience. Ajit is involved in **organic farming** and is a founder member of BDAI (**Biodynamic Association of India**), Advisory member of the BASIL Academy (Sustainable Agriculture) and was a former Executive Committee Member of the Palni Hills Conservation Council (PHCC).

He has advised **Governments/ Public Sectors** on **institutional reforms, sector revival plans**, project management practices, technology implementation He has worked in **most states of India, Bangladesh, Sri Lanka and Nigeria**.

In the **area of sustainable agriculture**, has been driving the **1000-day sustainability program in Kerala built on the convergence of Coconuts and Coir in the homestead**. A micro-procurement model led transformation of the Coir sector is currently being program managed by him. Ajit has been engaging extensively with the Department of Agriculture, Industries Department, Kerala State Planning Board; Ministry of Finance & Coir, State Institute of Rural Development (SIRD) among other institutions in Kerala.

He has been working closely with **MS Swaminathan Research Foundation (MSSRF)** in articulating their strategic plan and has been working with the institution in driving the Carbon Neutral Program in Wayanad, Kerala.

Ajit has developed farms and estates for organic certification. He has redesigned cultivation and harvesting processes; processing/ value addition; packaging and marketing of various organic products. **He has the experience of running fresh produce collection centres both for plains grown produce and hill items and had established a wide network of growers and suppliers.** He has worked in **farm sourcing, collection, distribution and retailing of- coffee, fresh fruits and vegetables.**

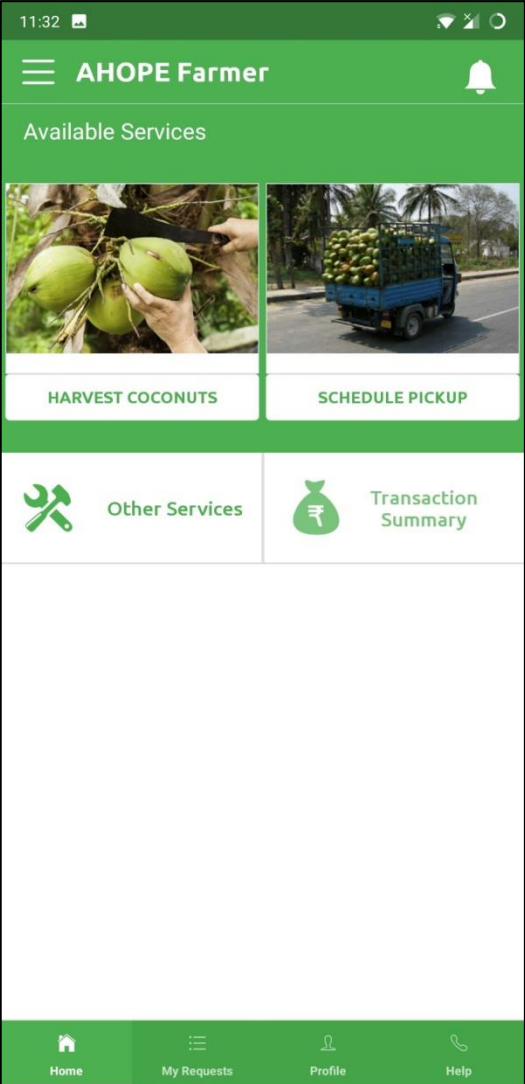




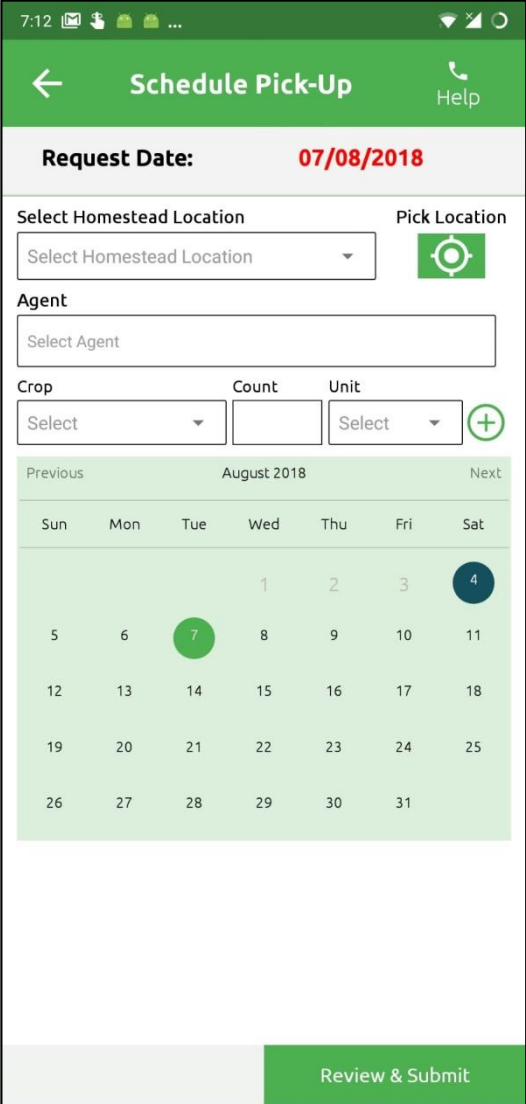
***AHOPE – APP SCREENSHOT
SAMPLES***

A-HOPE – App Screenshot Samples Farmer Application

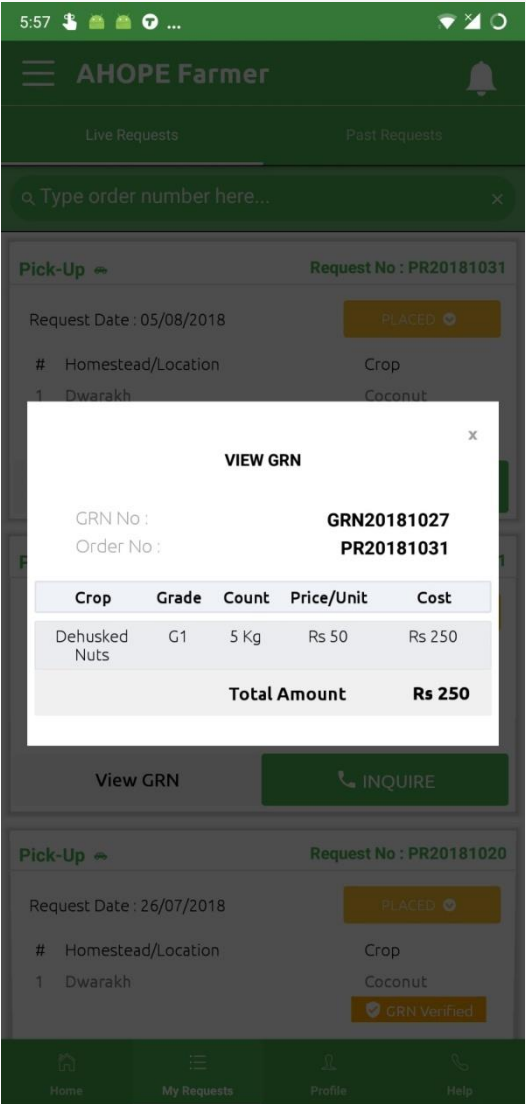
(a) Home Screen – showing pickup and other farm services



(b) Schedule Pick-up screen

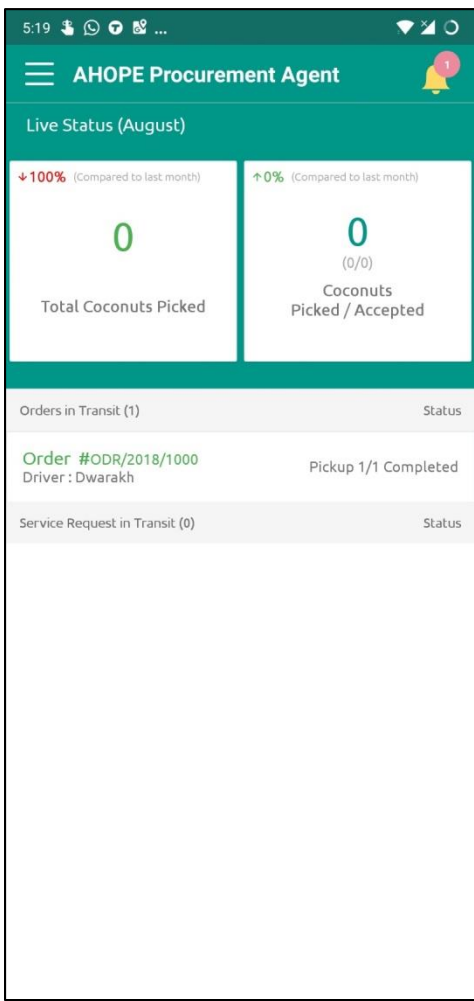


(c) Goods Receipt Note - GRN

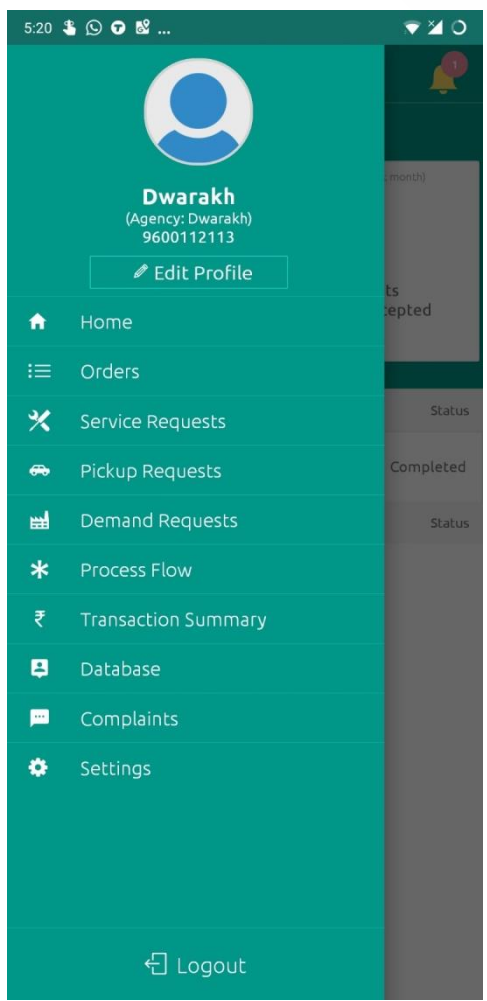


A-HOPE – App Screenshot Samples Procurement Agent Application

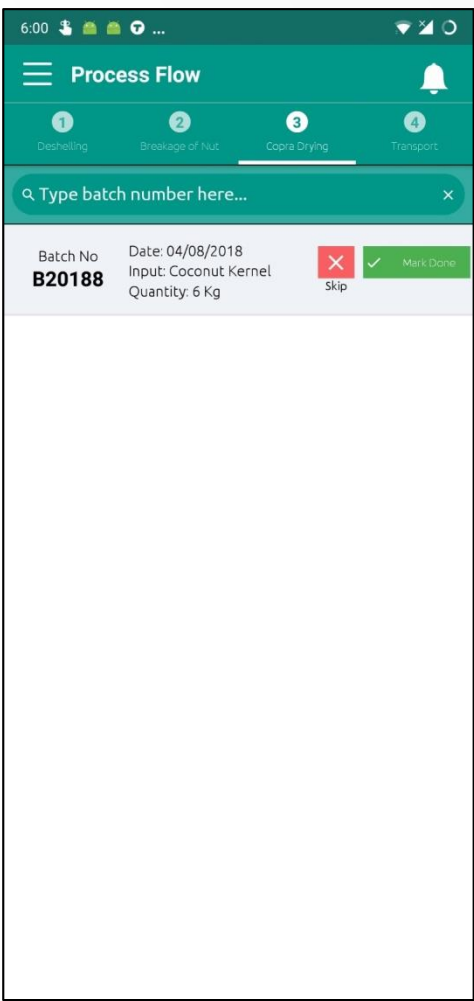
(a) Home Screen- 1



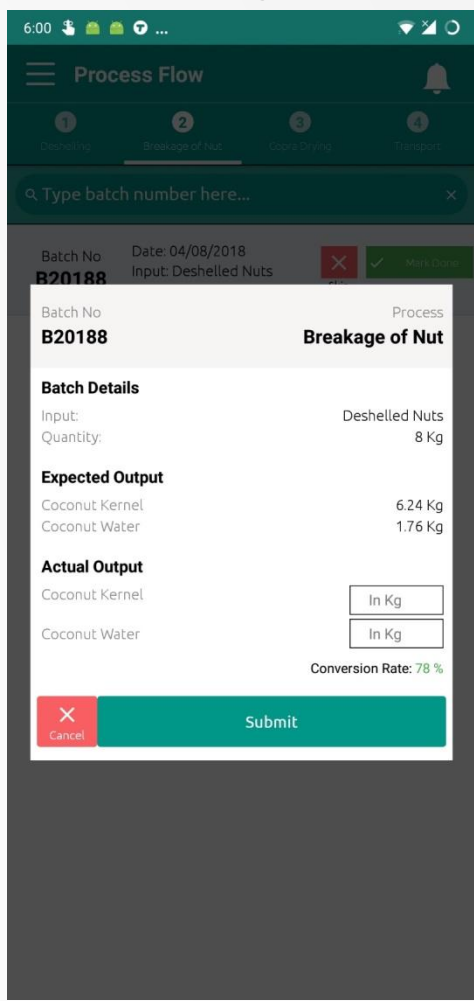
(a) Home Screen- 2



(c) Processing Screen- 1 showing matched coconut batches

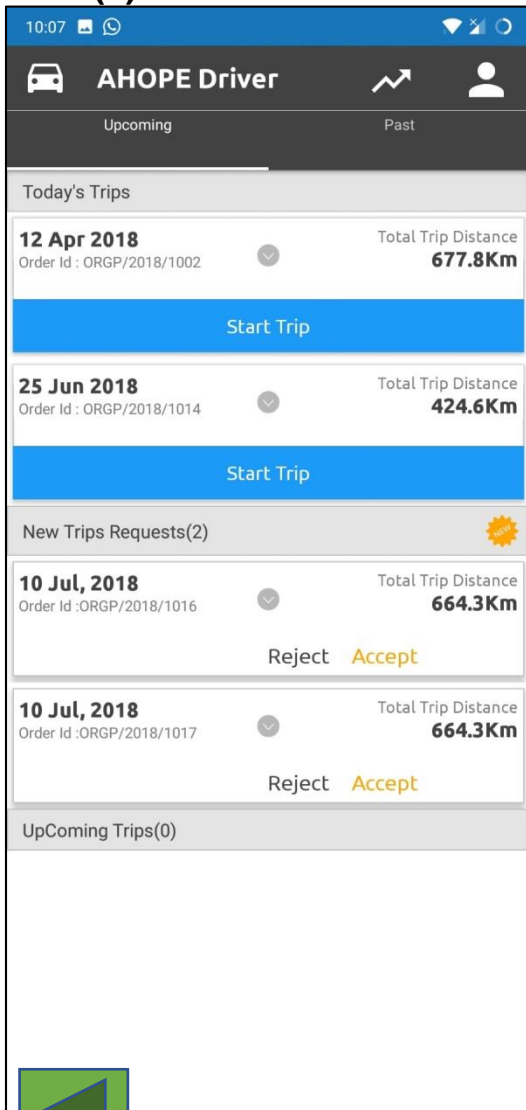


(d) Processing Screen- 2

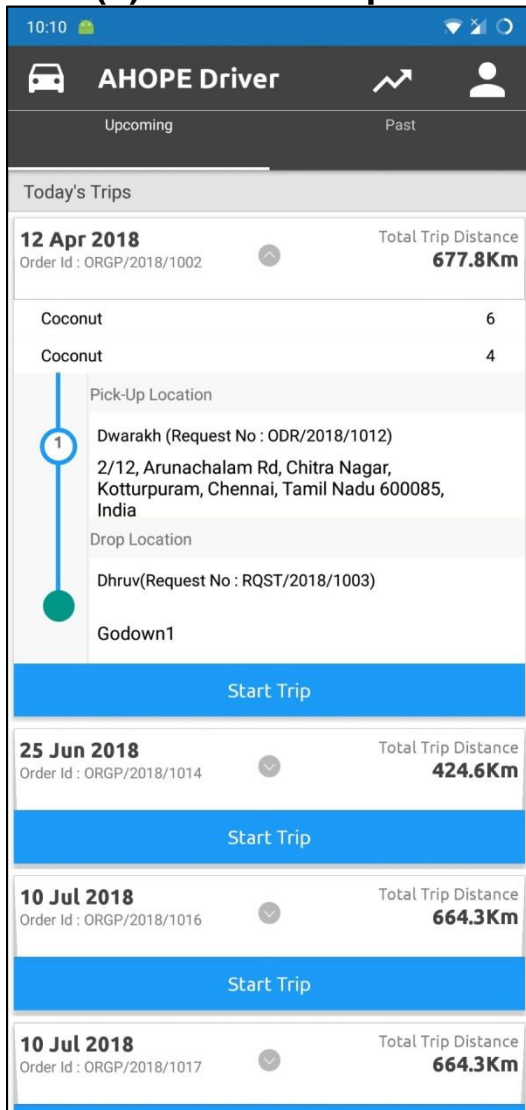


A-HOPE – App Screenshot Samples Driver/ Logistics Provider Application

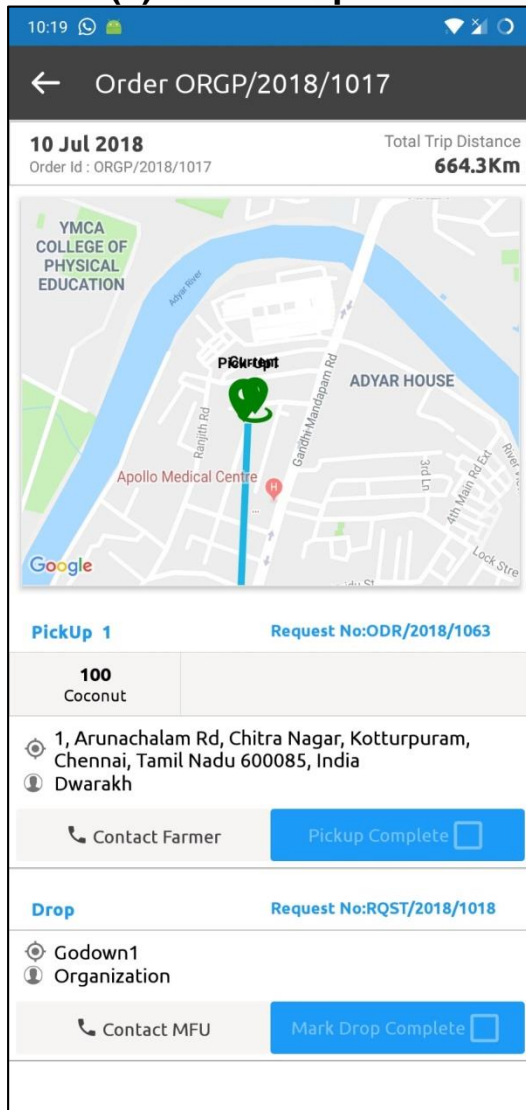
(a) Home Screen- 1



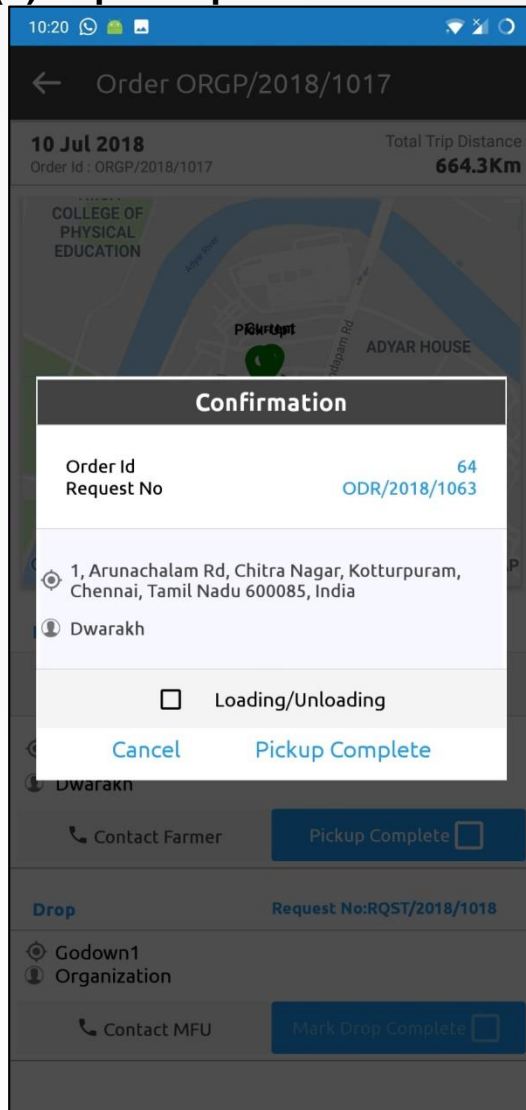
(b) Details of trip



(c) Route Map



(d) Trip Complete Conformation



A-HOPE – App Screenshot Samples Manufacturing Unit – Web Portal

Demand Log of Unit

Manufacturing Unit

🔍 Search

In Transit

Placed Orders

Order No: 985694564956749	Delivery Date: 19 Dec, 2018	Coconut	Grade 1 100
Service Unit: XYZ Kudumbshree		Coconut	Grade 2 200
Driver Details: Murugan T		Husk	Grade 1 300
Order Date: 16 Dec, 2018		Husk	Grade 2 100
		Nuts	Grade 1 500
		Nuts	Grade 2 200

Grade Crop
View GRN
Payment
Rate KSU/Driver

Order No: 985694564956749	Delivery Date: 19 Dec, 2018	Coconut	Grade 1 100
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Driver Details: Murugan T		Husk	Grade 1 300
Order Date: 16 Dec, 2018		Husk	Grade 2 100
		Nuts	Grade 1 500
		Nuts	Grade 2 200

Grade Crop
View GRN
Payment
Rate KSU/Driver

Manufacturing Unit

🔍 Search

In Progress

Placed Orders

Order No: 24356754	Delivery Date: 15th Dec, 2019	Coconut	Grade 1 100
Service Unit: XYZ Kudumbshree		Coconut	Grade 2 200
Driver Details: Murugan T		Husk	Grade 1 300
		Husk	Grade 2 100
		Nuts	Grade 1 500
		Nuts	Grade 2 200

Crop Grading

Crop	Grade	Count	Price/Unit
Coconut	Grade 1	45	Rs 8
Husk	Grade 2	Crop Count	In Rs
Coconut	Grade 1	Crop Count	In Rs
Coconut	Grade 1	Crop Count	In Rs

Send GRN



Thank You

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