Opportunities and Challenges of digital agtech industry in Nepal
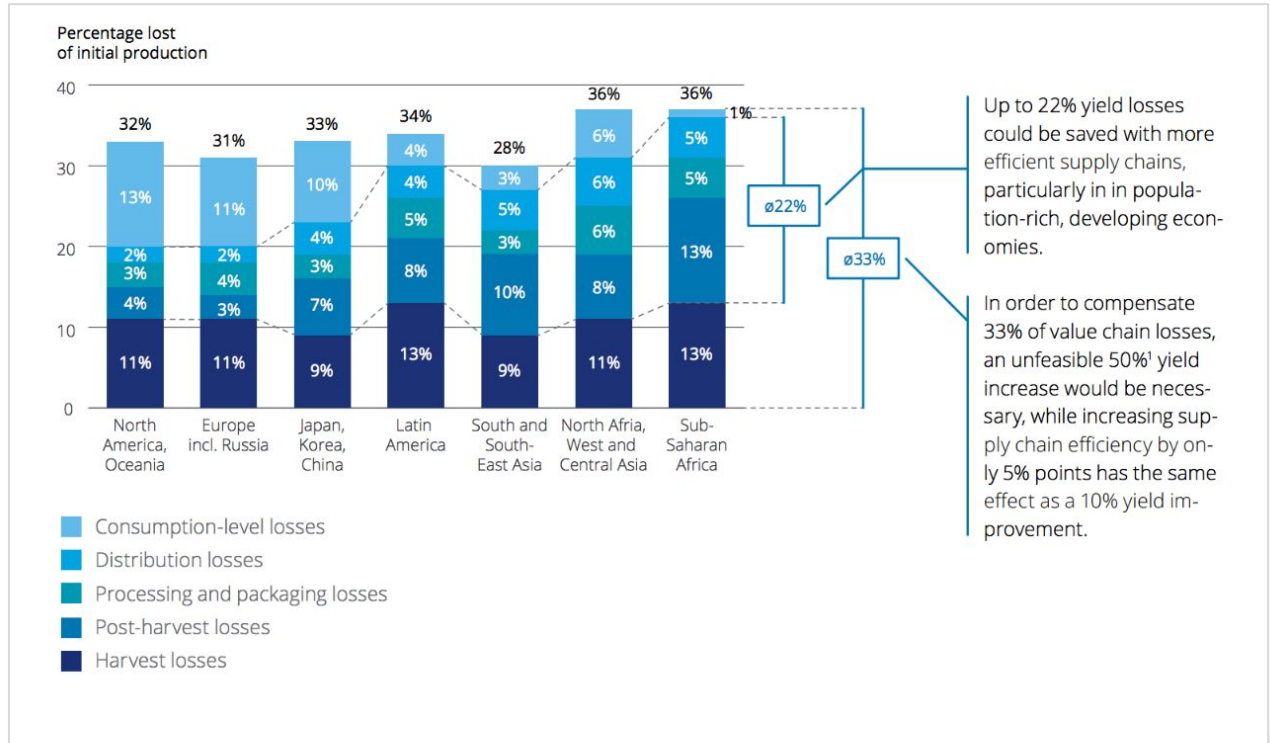
Shristi Piya

Project Lead
Rumsan Associates

1. Opportunities for digital solutions in agriculture sector

2. Our involvement in Digital agtech sector

3. Challenges for agtech solutions

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Need for Supply chain efficiency

How??

Supply chain **tracking** system using **Smart** labels **IOT** and **blockchain**

Percentage lost of initial production

	North America, Oceania	Europe incl. Russia	Japan, Korea, China	Latin America	South and South-East Asia	North Afria, West and Central Asia	Sub-Saharan Africa
Total	32%	31%	33%	34%	28%	36%	36%
Consumption-level losses	13%	11%	10%	4%	3%	6%	5%
Distribution losses	2%	2%	4%	4%	5%	6%	5%
Processing and packaging losses	3%	4%	3%	5%	3%	6%	13%
Post-harvest losses	4%	3%	7%	8%	10%	8%	
Harvest losses	11%	11%	9%	13%	9%	11%	13%

ø22%

ø33%

1%

Up to 22% yield losses could be saved with more efficient supply chains, particularly in in population-rich, developing economies.

In order to compensate 33% of value chain losses, an unfeasible 50%[1] yield increase would be necessary, while increasing supply chain efficiency by only 5% points has the same effect as a 10% yield improvement.

Source: United Nations, FAO, IWMI 2007, Monitor Deloitte Research

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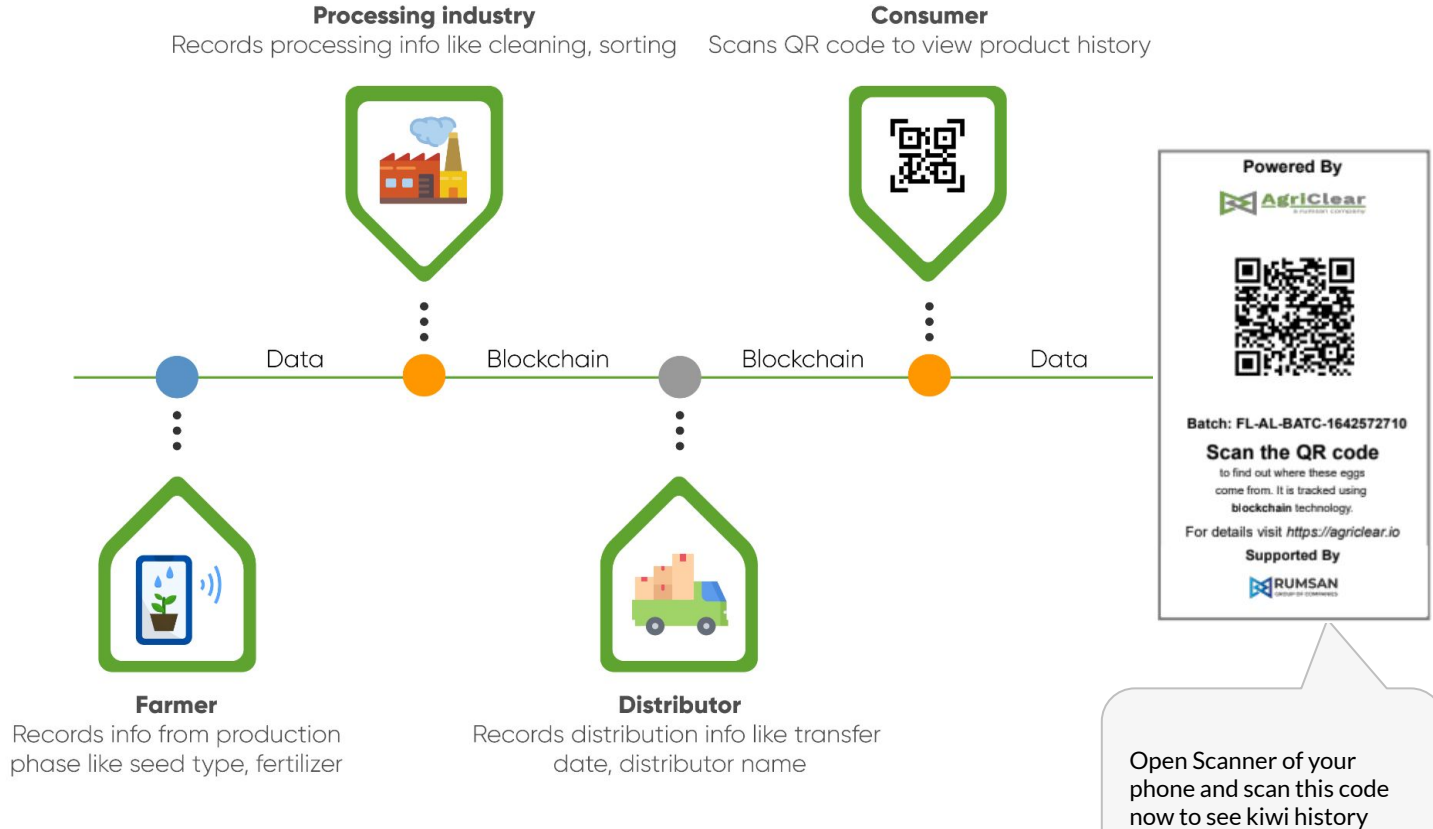a rumsan company

TRUST

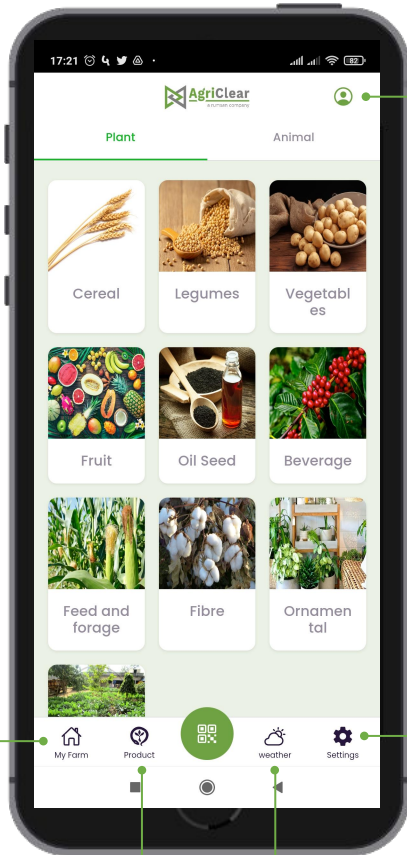**Consumer Engagement**

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AgriClear

WE HELP AGRO-ENTERPRISES BUILD
TRUST WITH THEIR CONSUMERS

Transparency builds trust

Tracker's App

My profile

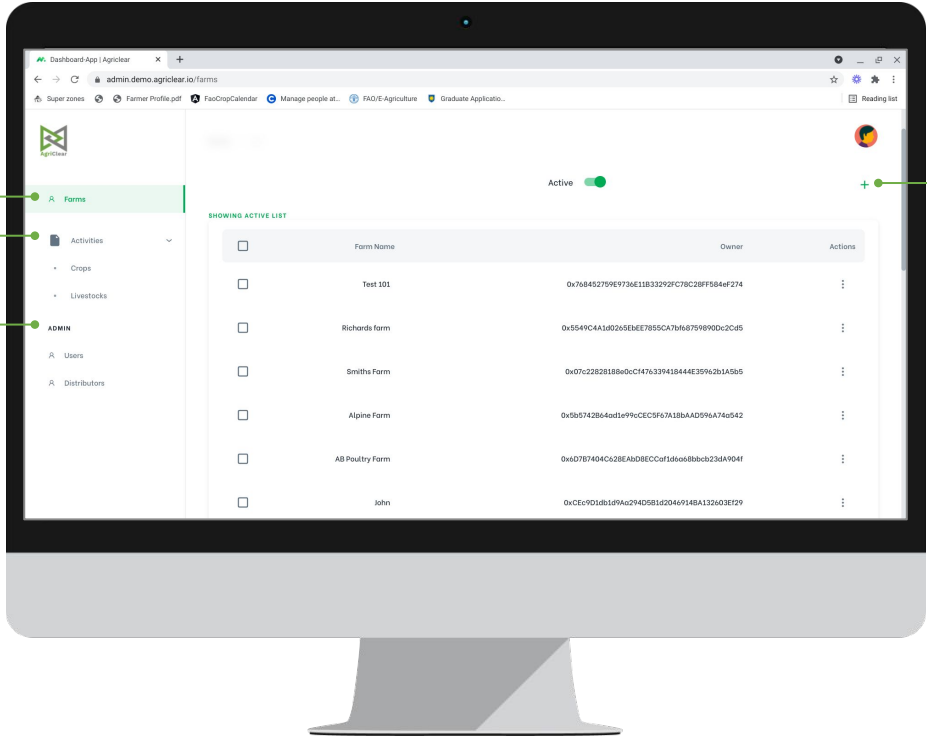Settings

Weather Details

Agro products produced in the farm

Product List, Knowledgebase

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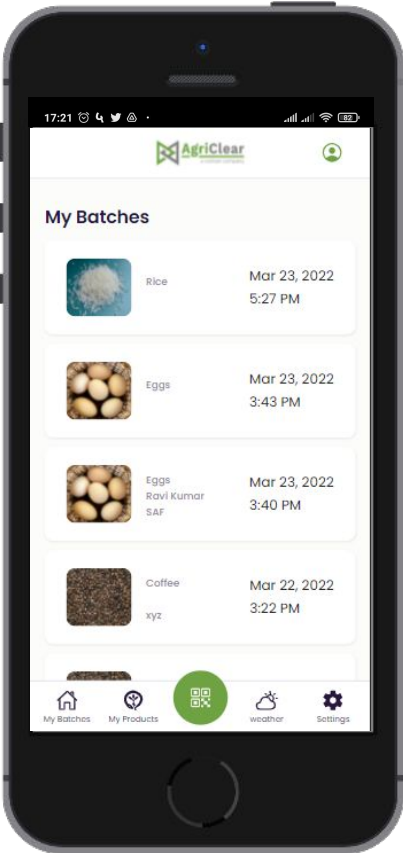# Enterprise App

Multiple Farm Details

Add Farms

Dynamic Activity Listing

Manage Users and Distributors

AgriClear Lite

OUR CLIENTS

Some of the agro-enterprises and organizations we have and are working with.

CASE STUDY

The Problem

Huge quantities of Junar are falsely sold as Junar of Sindhuli. This deprives the genuine farmers of Sindhuli of their rightful benefits. Also, the storage time of the fruits increases when they cannot be sold in time which further adds wastage contributing to an additional loss for the farmers.
Lack of data for authenticity and farmers not getting a fair price because of not having a competitive advantage over imports are the major issues addressed by the pilot project.

The Intervention

The first pilot project of Agriclear tracked 6.6 tonnes of Junar in total from 6 different farms at Sindhuli. We tracked information only after fruits were harvested from the farm. A total of 6 farmers were trained and facilitated to record harvesting information in the system. The fruits were then aggregated and sorted at the cooperative and transported to a warehouse of Green Growth. Green Growth packaged the fruits with the QR code labels generated by the Agriclear System that had all the information and was then delivered to the consumers who ordered these tracked Sweet oranges from Sindhuli. The information like pluck date, farmer involved in the production, distributor name, packaged date, food mile etc generated in all these steps was recorded in the Agriclear system.

Results

The project helped Junar farmers to increase their sales up to 40% compared to last year. Sales of Green Growth increased by four-folds. The number of end-consumers who bought these tracked Junars increased by 10% from last year.

Features of AgriClear, transparency, and traceability helped farmers to further popularize "Sindhuli ko Junar" with at least 30 media mentions and many posts and shares on social networking sites. With the help of Green Growth and AgriClear, the farmers of Chisapani Junar producer Cooperative could directly connect to consumers. 500+ scans were recorded during the period of 4 months of the pilot.

AgriClear made the supply chain of Junar traceable and transparent. It assured the quality and authenticity of Junar including all the information from the farm to the finger. The use of QR labels and the Blockchain technology in the supply chain of Junar also helped in gaining massive support of end-consumers.

Agro enterprises,
Pay per Trace

Agro IT Consulting
Services

Business Model

Challenges for agtech solutions

1. Infrastructure availability

2. Digital literacy

3. Digitization NOT a **mainstream** in agro-sector- Nice to Haves

4. Digitization transition and change management

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