**China Global Leaders Programme 2018** 

SUSTAINABILITY FOR CHINA'S APPLE INDUSTRY & FARMING COMMUNITY

**Executive Summary** 



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## SMALLHOLDER FARMING

Agriculture forms the backbone of many developing countries but it is often the most disadvantaged sector in society. Ensuring a country's farmers are well integrated into the food value chain, have access to finance, training and education, and maintain good health and wellbeing, are key to lifting the millions out of poverty.

China has 230 million smallholder farming households and is the world's largest producer, importer and consumer of food. Recent government policy has stated that rural revitalisation is the top priority for China's development. At the same time, the government is focused on making sure that food is produced in a manner that is safe and with as little environmental impact as possible.

## CHINA'S APPLE INDUSTRY

GIFT partnered with Austria Juice to create a business plan that would help the company source sustainably-produced apples for their apple juice concentrate (AJC) production in Xianyang.

Austria Juice is a world leading fruit juice concentrate producer and beverage solutions provider. Among its 15 production facilities across the world, Austria Juice owns an AJC processing facility in Xianyang, Shaanxi, China, with a maximum capacity of processing 80 tonnes of apples per hour and 30,000 tonnes of AJC per year.

Xianyang in Shaanxi province produces 1/9 of all apples in China and 1/6 of all apple juice concentrate in the world. It is also a major agricultural region producing large volumes of fruit, vegetables and meat.

In recent years, the price of AJC has dropped to very low levels and this has driven many farmers to turn to producing fresh market apples for a higher price. However, fresh market apples are labour intensive and the market highly competitive. For many farmers whose trees are nearing an old age of 20-30 years, it is sometimes more practical to cut them down and grow other crops.

## COMMUNITY-FOCUSED COOPERATIVE

GIFT recommended that Austria Juice work with Puhan Cooperative in this endeavour. Puhan Cooperative is a leading multi-functional farming cooperative in Yongji, Shanxi, with 20 years of experience in organising farmers and providing services to support ecological farming and community living among its 3800 members. Puhan promotes the usage of organic fertilisers produced from plant residue, enzymes from fruit and animal manure, and crop diversification to protect farmers from market volatility. It also provides education for kids, elderly care, and community services and training that create value for those living in the countryside.

Puhan's model could pave the way for a viable solution for Austria Juice and presents a good example for other communities to emulate.



### 20-YEAR COOPERATION FOR A SUSTAINABLE SUPPLY CHAIN

The proposed business model suggests a 20-year cooperation between Austria Juice and Puhan Cooperative. It aims to help Austria Juice secure a stable supply of apples that are produced with a focus on environmental protection and social impact that responds to the challenges of smallholder farming in China. Through the cooperation and by scaling Puhan's cooperative model it also helps to connect smallholder farmers to a modern value chain thus providing them with a stable income and healthy community living in Xianyang and Yongji.

The plan involves two phases of cooperation between Austria Juice and Puhan Cooperative.

#### *Phase 1: 2019-2038 Direct Purchase Contract*



<sup>1</sup> In Phase 1, Puhan Cooperative will grow industrial apple exclusively for Austria Juice, starting initially with allocating 25% of the production from 4000 mu of existing traditional orchards and gradually adding 9,000 mu of new intensive orchards to reach a total of 13,000 mu by 2024. Puhan will produce 52,000 tonnes of apples per year for Austria Juice by 2028.

As part of the direct purchase contract, Austria Juice will provide Puhan Cooperative with an early payment 9-12 months in advance to secure apple supply from the farmers. The fund will be allocated for microcredit to support the purchase of farming inputs. Austria Juice will receive a 1% annual interest from the microcredit.

In addition, a microfinance fund will also

be set up to support first three years of planting, and funding may come from both internal and external sources.

3 Industrial apples will be collected by the cooperative and sold to Austria Juice in bulk at a premium price that is based on a weighted average of industrial and fresh market prices to stablise prices and incentivise farmers.



## SCALING UP THROUGH A DISTRIBUTED MODEL

In Phase 2, it is suggested that a new joint-venture company, *Sustainapples*, be established to oversee the establishment of a Xianyang Cooperative based on the Puhan model, and pilot a distributed AJC and NFC (not from concentrate) plant in Puhan which will minimise transportation, create jobs locally, and open up new markets for Austria Juice.

Sustainapples aims to draw young people back to rural communities and help Xianyang and Yongji farmers improve their farming practices. Through the venture Austria Juice can also ensure that new sources from the Xianyang Cooperative are produced under the same sustainability standards.



# Phase 2: 2022- New Joint-Venture "Sustainapples"





Sustainapples, a JV of Austria Juice and Puhan will provide services and advisory to support the development of cooperatives in both Xianyang and Yongji to further scale up sustainable apple production. It will also manage a fund to support microfinance and community services.

A pilot plant for distributed juice processing will be set up in Puhan to produce Apple Juice Concentrate (AJC) and Not From Concentrate (NFC) juices for Austria Juice. A portion of the industrial apples will still be supplied to Austria Juice factory in Xianyang in parallel. <sup>6</sup> A traceability system will be developed jointly to capture data of each smallholder orchard throughout the production lifecycle. Data captured will include owner, location, planting size, planting date, microcredit balance, credit history, agriinputs applied, soil health, tree health, technical difficulties, interventions at each critical period, and expected harvest, etc.

Austria Juice will provide technical advise on orchard management and sustainability standards, including on-field guidance during critical periods. Regular and random inspection and verification will be made by Austria Juice throughout the growing season. Self-assessment and cross-inspection will be conducted by the Producer Mutual Aid Group.

## ACHIEVING SUSTAINABLE DEVELOPMENT GOALS (SDGs)

By integrating farmers with the modern value chain, it is expected that this cooperation will raise living standards for smallholder farms in Yongji, Xianyang and beyond. It satisfies China's commitment to developing the countryside, and fulfills many of the United Nation's Sustainable Development Goals (SDGs) such as reducing poverty, providing gainful employment, preventing land degradation and protecting the planet. Developing traceable and sustainable produce will also help Austria Juice become more competitive, thus providing safer and better quality beverages for consumers around the world.

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The UN's Sustainable Development Goals applicable to this project

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.

The Global Leaders Programme (GLP) is GIFT's flagship leadership experiential programme designed for managers from leading global organisations to think critically about the drivers of change in the 21st century and develop new business models that address the defining challenges of our time.

In this GLP, 24 participants from 13 companies and 12 countries convened in Hong Kong and China between 22 Oct and 2 Nov to undertake classroom discussions, fieldwork, and business planning sessions. The results of this business plan was presented at the Grand Ocean Spring Metro Park Hotel in Xianyang, Shaanxi on 2 Nov to a range of business stakeholders and farming communities. GIFT thanks everyone for putting in their best efforts and making this possible.

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