

***Promoting SCP in the
agro food sector in China***



**Promoting a sustainable edible bamboo shoot value chain
in China**



switchasia
PROGRAMME

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Overview

- ✓ **Bamboo industry in China: edible bamboo shoot production**
- ✓ **Challenges in edible bamboo shoot production**
- ✓ **Objectives, strategy and expected outcomes and impacts**
- ✓ **Key stakeholders: role of bamboo shoot processing SMEs**
- ✓ **A case study: how to engage SMEs**



Known as the Kingdom of Bamboo

- More than 500 bamboo species are distributed in 16 provinces. About 200 bamboo species have edible shoots, and more than 30 taste good.
- 6.7 million ha bamboo forest. Edible shoot producing bamboo forest/plantation makes up about 1.9 million ha. (28% of total bamboo forest)
- The annual production value of the bamboo industry in China is about US\$ 18.9 billion, employing more than 18 million workers.

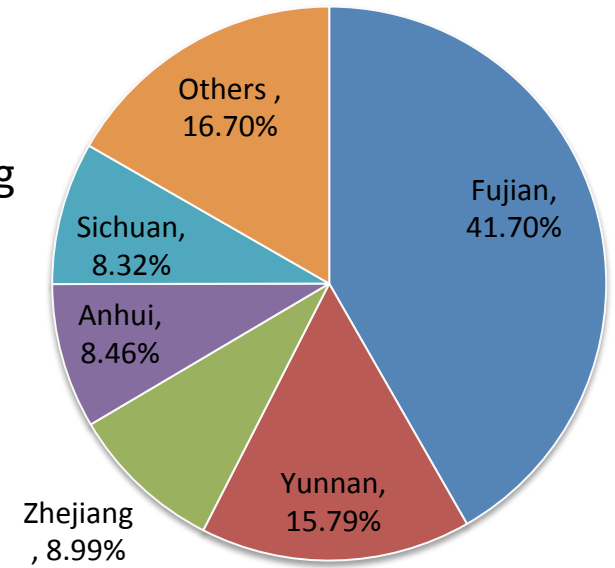


Bamboo roof in Madrid Airport



The annual production output of the bamboo shoot industry was about 166 million tons in 2011. Annual export earnings reached about 220 million USD (exceeding 60% of the world's total.)

Fujian Province ranks at the top with 692,000 tons bamboo shoot production, accounting for 41.7% of China's total. The annual production output in Yunnan, Zhejiang, Anhui, Sichuan and Chongqing also exceed 100,000 tons.



Dried bamboo shoots



Processed bamboo shoots



Flavored shoots

Challenges and problems in some SMEs in western China such as Sichuan, Guizhou and Yunnan provinces:

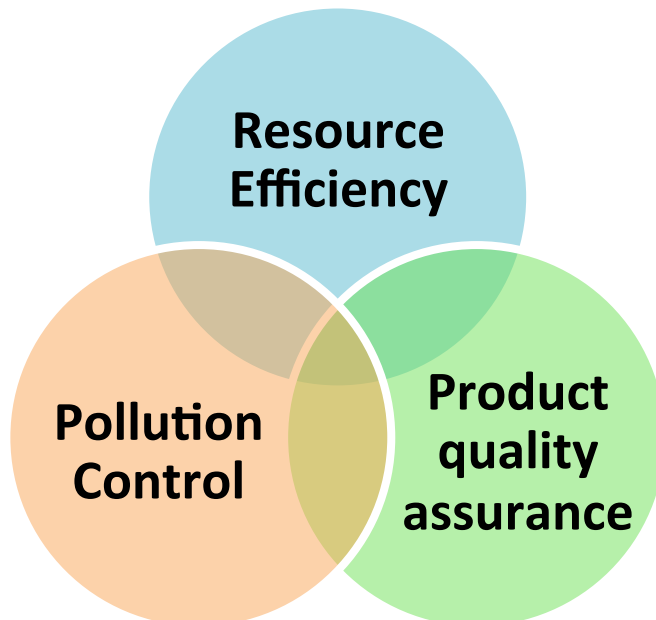
While advanced technology and policy governance have been implemented in the bamboo shoot SMEs in eastern China, such as Zhejiang province, **large gaps between some SMEs in eastern and western China** exist, such as in Sichuan with following problems:

- Low resource efficiency, large quantity of fresh water consumption (1:4) and pollution
- Overuse of preservatives, mainly salt and sodium pyrosulfite
- Increasing labour costs in production
- Lack of high value-added products to maintain SMEs' profit
- Poor processing technologies, standards and policy governance.



The EU Switch Asia Programme Greening Bamboo Shoot Value Chain Project (2013-2017) is going to address the urgent needs of those SMEs.

Its objectives are to build their capacities in processing technology, environmental performance, product quality and marketing strategies etc., and to increase profits for SMEs and improve efficiency throughout the whole value chain.



SME Associates and Bamboo Associates in Sichuan, Zhejiang

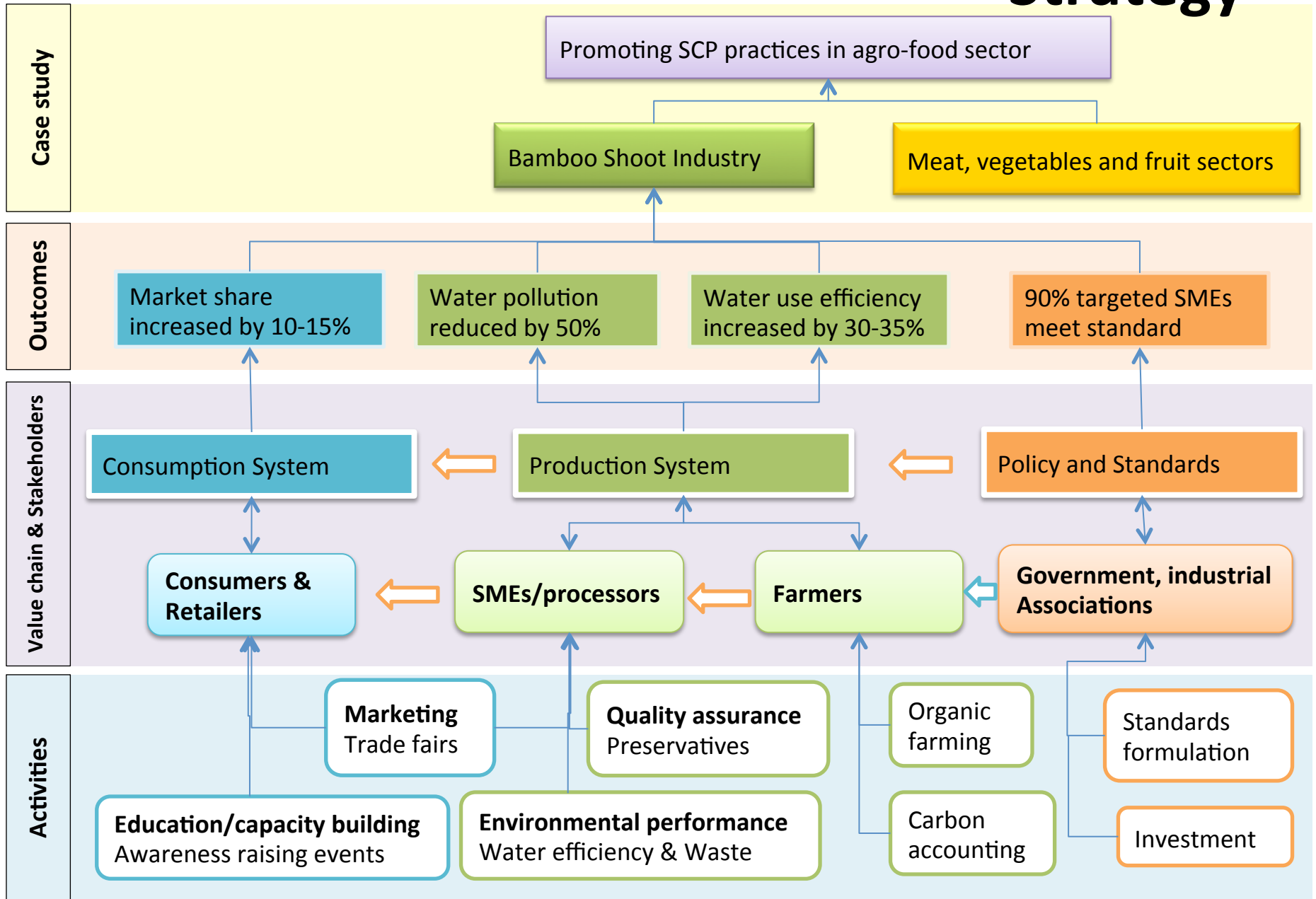
Key issues related to SCP to be addressed in the bamboo shoot production and consumption system



Project intervention engages stakeholders/ actors throughout the whole production value chain, including through four work packages listed below:

Work Package I	Revive consumption of safe and eco-friendly preserved foods
Work Package II	Develop less polluting and safe food produced by green SMEs in Zhejiang and Sichuan Provinces
Work Package III	Formulate and enforce policy for pollution control and for safe processed foods
Work Package IV	Disseminate, transfer, and duplicate successful experiences and models to other SMEs of preserved vegetables, fruits, and meat

Strategy



❑ **Technical impact:** 2 SME clusters and information platform established, sets of guidelines & demo sites will be produced and serve for future training activities.

❑ **Environmental impact:**



Water pollution by 30-35%

Soil pollution by 10-15%

Pollutant content by 35-40%



Water use efficiency by 30-35%

Waste use by 30%

❑ **Policy impact:** Two standards on eco-friendly bamboo shoot farming and SME primary processing technology and two sets of policies will be developed and implemented in the two provinces.

❑ **Social-Economic impact:** The industry is worth about 16 million USD per year, which could secure about 5,000-6,000 jobs within the rural SMEs areas.



The International Network for Bamboo and Rattan



Project sites



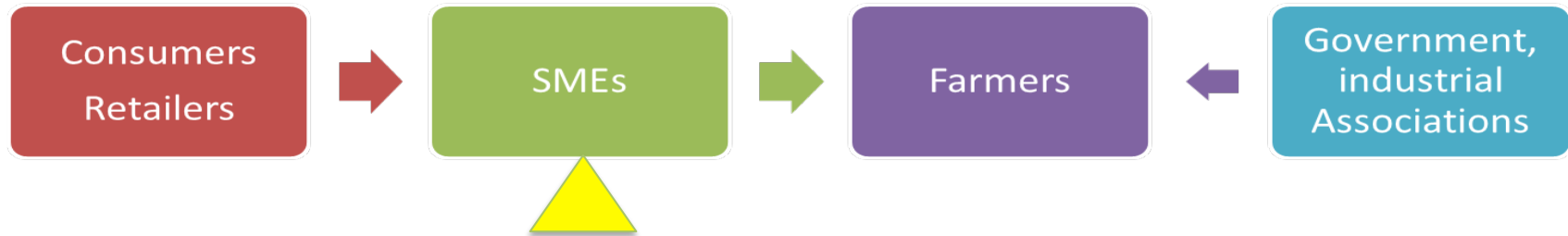
Zhejiang province

Lin'an and Anji Counties: Primary hubs for bamboo shoots in eastern China, bamboo shoots have become the first pillar industry of Lin'an 's rural economy.

Sichuan province

Changning and Zigong Counties: the biggest bamboo industry counties of Sichuan Province, and the bamboo shoot processing hub of southwest China.

Sites	No. SMEs	Annual output(tons)	production value (million USD)
Lin'an, Zhejiang	46	235,000	354 (56 export value)
Anji, Zhejiang	12	13,700	16
Changning, Sichuan	19	250,000	48



Bamboo Shoot Processing SMEs working as a link for the whole value chain

SMEs are linking farmers, consumers and other stakeholders such as local governments and business associates together, playing an important role in **local economic prosperity, share of outputs, employment and farmers' income, and corporate social responsibility (CSR)**

The industry has become a mainstay industry in project sites.

- **Livelihoods and income generation:** more than 200,000 rural farmers depend on harvesting bamboo shoots for a living in Anji or 50% of income earned from the industry. During harvest seasons, employees' income increases by about 800 USD.
- **Economic revival and job creation for local community:** the industry secures about 3,000-6,000 jobs in the SME-based areas in the project sites, especially during harvest seasons. Over 40% of employees come from disadvantaged social groups, such as women and the elderly.
- **Technical innovation and up-grading:** develop and adopt new skills and processing technologies, raise the level of processed food industry, improve processed food quality and even improve the food processing system, thus increasing resource efficiency and profits for long-term sustainable development.

Promotion of regulations and standards

In collaboration with other stakeholders, SMEs promote new processing/quality regulation and standards.

Lack of uniform product quality standard for Dried bamboo shoot products in Lin'an :

The special flavor of bamboo shoots will be compromised if the standards for dehydrated vegetables are applied. Hence, each SME has their own enterprise standard of quality to prevent problems with quality inspection and food safety control.

Recently, dried bamboo shoot processing SMEs have been working on promoting an industrial uniform standard, and an Industry Union Standard for Dried Bamboo Shoots is forthcoming in Lin'an County. This is an important starting point for the shoots industrial transformation and upgrading.

Lin'an City Xing Wang Food Co, Ltd, Zhejiang Province

Basic Information	
Products	hand-stripping bamboo shoots, instant bamboo shoots, shredded bamboo shoots etc.
Outputs	hand-stripping bamboo shoots 110 tons and other instant products 50 tons
Output Value	800,000 USD
No. of employees	about 30 people, 60-70 during busy season
Use of Preservative	salt 7.5 tons
Water Consumption	deep well water, no statistics

Lin'an City Xing Wang Food Co, Ltd, Zhejiang Province

Challenges and Problems:

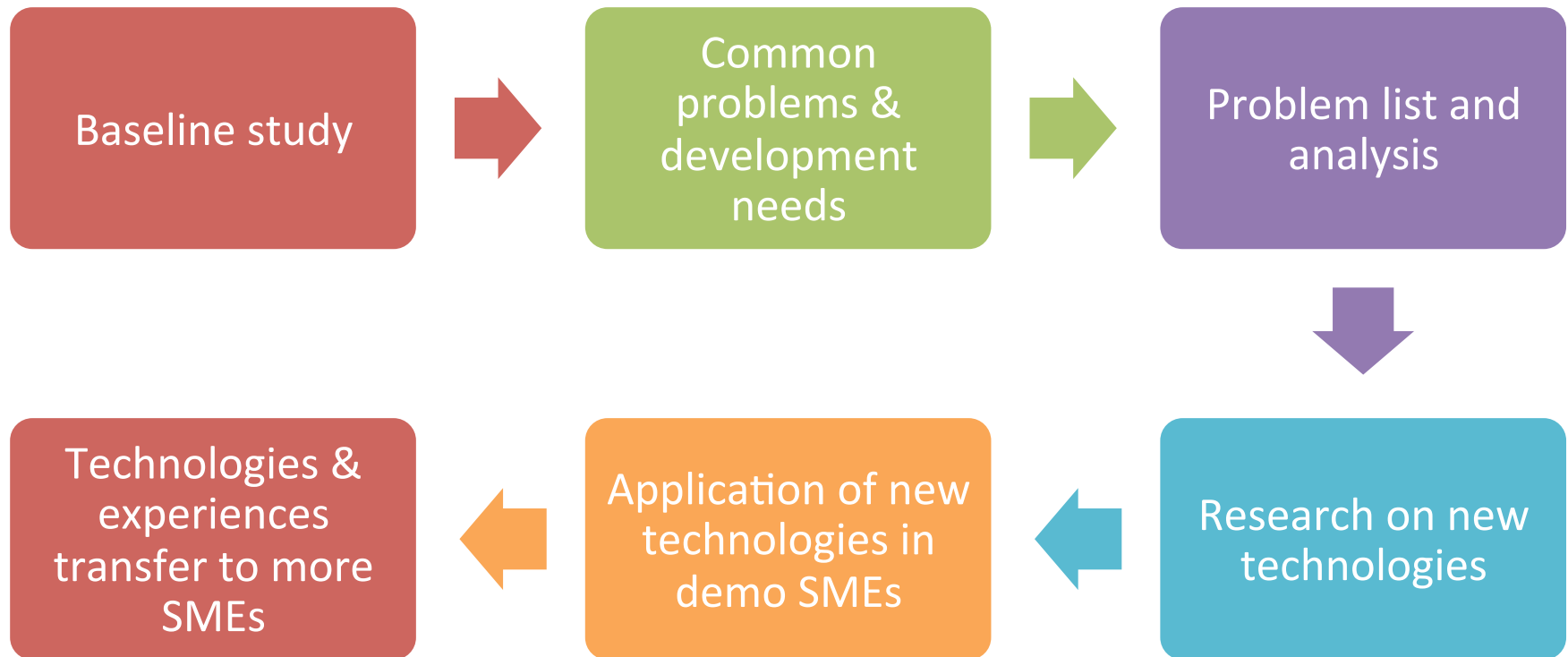
- Technical problems: a few hand-stripping bamboo shoots have gone bad during hot weather; a few sterilization cans(tinplate) have swelled during hot weather etc.
- Economical problems: difficult for SMEs to borrow money from banks.

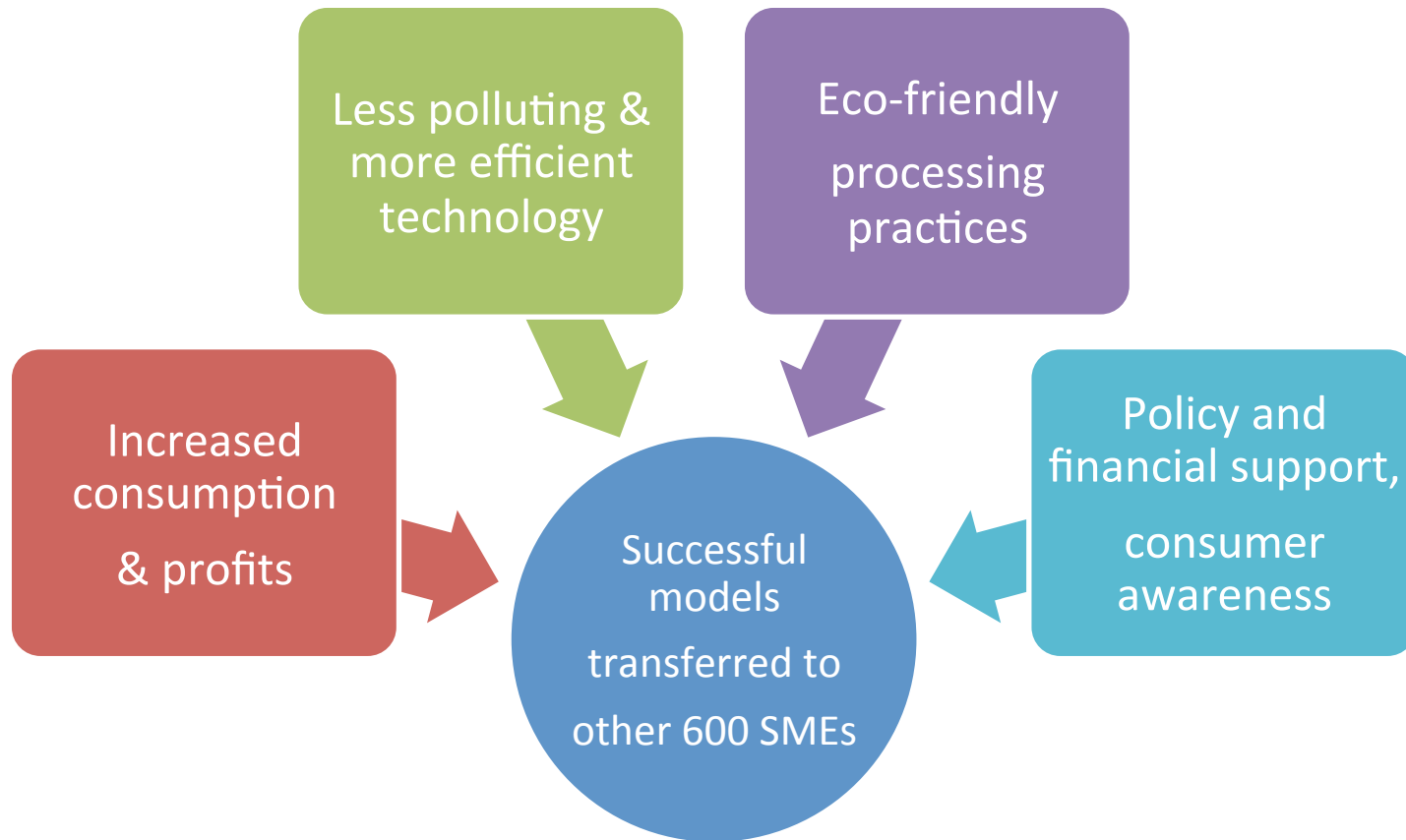
Development Needs:

- Need and desire for cooperation with research institutes and universities etc. to upgrade processing technologies to tackle technical problems.
- Need for policy and financial support for SMEs.
- Need for raising consumers' awareness for eco-friendly food.

Lin'an City Xing Wang Food Co, Ltd, Zhejiang Province

Our Method to work with SMEs :







The International Network for Bamboo and Rattan



Thanks for your attention!

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