

Current Developments and Policies in Organic Agriculture in ROC (Taiwan)

The country paper from ROC(Taiwan)

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1. Introduction of the profile and agriculture in Taiwan

Republic of China, commonly known as Taiwan, is an island country located about 180 km off the south-eastern coast of China. Taiwan's 35,808 square kilometers are home to more than 23.5 million inhabitants, which is one of the most densely populated countries in the world. Due to located in both subtropical and tropical region, the weather in Taiwan is hot and humid in summer, with averagely 27-30°C and 3-5 typhoons per year, but in winter, the northern experiences steady rain and cool weather, while the southern is arid and warm. According to the agricultural statistics yearbook 2017, there are around 793,027 ha agricultural land in Taiwan, consists 22% of the total area. There are 775,310 farming households, approximately 80% of the farming households own less than 1 ha agricultural land. 55% own less than 0.5 ha.

2. History and statistics of organic agriculture in Taiwan

The origins of organic farming in Taiwan date back to 1986, when the government started to assess the feasibility of organic agriculture in Taiwan. Subsequently, pilot projects, researches have been practiced and conferences have been raised. In 1999, the council of agriculture promulgated regulations of organic agricultural production and certification. But it was not until 2007, when council of agriculture promulgated “Agricultural Production and Certification Act”, was organic product firstly stipulated to be legally certificated before sold. Due to the concept of food safety and environment protection expanded, Executive Yuan set organic agriculture as main scheme of administration in 2009.

Organic agricultural land area increased gradually since 2009. From 2009 to 2011, except 587 ha organic agricultural zone have been established, 12 certification bodies (11 for agriculture and 1 for animal husbandry) were accredited by Council of Agriculture. As organic agriculture increased and in order to promote the development of sustainable agriculture, council of agriculture promulgated “Organic Agriculture Promotion Act” in May 30th 2019, which is the first bill of organic agriculture.

Until August 2019, the organic agricultural land area has reached 9158 ha. In addition, since 2017, we started to promote the eco-friendly farming. It is a farming way that similar to organic farming but without certified. Instead, eco-farmers have to be in the officially approved groups and registered to be managed. Until this August, there are 3,492 ha eco-friendly farming area, added up with the 9158 ha organic area, there are 12,650 ha, consists more than 1.5% of agricultural land (see figure 1). There are currently 3,719 organic agricultural farms and 459 households of organic agricultural processing, packaging and distribution. Rice(27%) and vegetable(29%) are the main crops(see table 1). According to the FiBL statistics 2017, The percentage of organic area in Taiwan ranks number 10 in Asia and number 77 in the world.

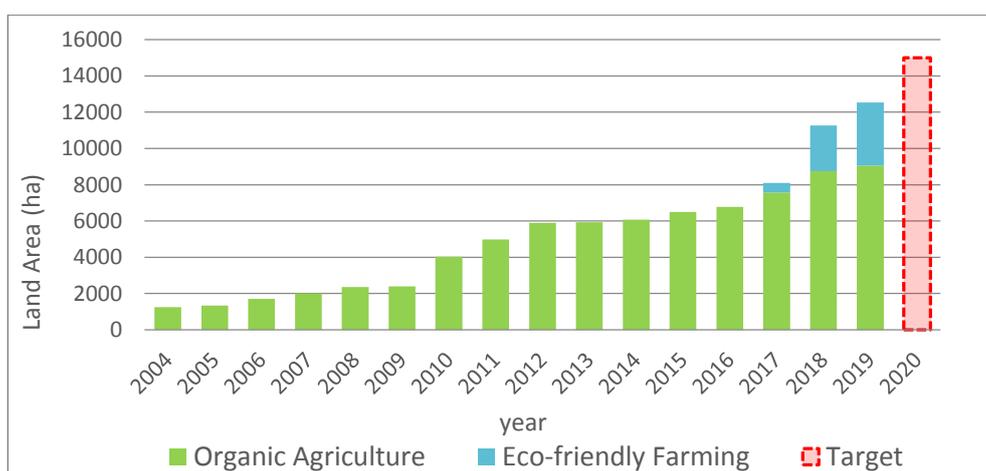


Figure 1. Organic agricultural land areas (2004-2019.8)

Table 1. Organic agricultural land areas of different crops (2004-2019.8)

Year \ Crop	Rice	Vegetable	Fruit	Tea	Others	Total
2004	744	232	154	76	41	1246
2005	697	343	152	72	71	1335
2006	704	379	207	71	348	1709
2007	842	438	258	125	349	2013
2008	949	518	296	140	453	2356
2009	1085	913	291	169	504	2390
2010	1317	1436	462	219	601	4034
2011	1654	1692	613	263	794	4990
2012	2007	1785	713	408	937	5896
2013	2059	1957	833	447	640	5937
2014	1898	2104	917	448	626	6071
2015	1780	2439	1206	343	723	6490
2016	1853	2530	1337	372	692	6784
2017	2705	2481	1108	356	919	7569
2018	2937	2760	1381	386	1295	8759
2019(until Aug.)	2976	2820	1483	410	1469	9158

3. Policies to organic agriculture

The new promulgated bill “Organic Agriculture Promotion Act” has been established for maintaining water and soil resources, ecological environment, biodiversity, animal welfare and consumer interests, and promoting agricultural operation that is eco-friendly and sustainable use of resources. Promotion of the eco-friendly and organic farming, management of accreditation and certification bodies, counseling of production and marketing and mutual organic equivalence are the main current policies to organic agriculture.

3.1 Promotion of the eco-friendly and organic farming

As the sum of organic agricultural and eco-friendly land area reached over 1.5% of the

agricultural land area in Taiwan, 98.5% farmers still maintain the conventional farming. Because of high cost of the farmlands, expensive certification fee and high technical threshold, appropriate subsidy and incentive could substantially help the farmers. Therefore, in order to attract conventional farmers conversing to do organic farming, around \$1,000 USD/ha ecological incentive is given to farmers who are doing the organic farming, eco-friendly farming, or conversion of organic farming. For farmers conversing to organic agriculture, there is also cultivated incentive of \$1,000-1,500 USD/ha depends on different crops.

To mitigate the cost of the organic farmers, the government in TW also subsidizes 90% of the certification fee. What's more, when the farmers rent the public land to do organic farming, they will pay only 60% of the original rental price, and get the insurance of the rental period 10 to 20 years. In addition, there are also subsidies of facility, equipment, material, certification fee, and rental are promoted.(see table 2)

Table 2. Incentives and subsidies on organic agriculture

	Incentives	Subsidies
Conventional farming	X	1. Facilities(equipment) (1) Green house and net house.(without priority) 2. Material (1) Domestic organic fertilizer (2) Biological control material
Eco-friendly farming	Ecological incentive: \$1,000 USD/year	1. Facilities(equipment) (1) Green house and net house (2) Machinery (3) Processing equipment 2. Material (1) Domestic organic fertilizer (2) Biological control material 3. Certification fee 4. Rental insurance and discount (1) 60% of the original rental fee (2) Insurance of rental period 10-20 years
Conversion to organic agriculture	1. Ecological incentive: \$1,000 USD/year 2. Cultivated incentive: \$1,000-1,500 USD/year (depend on crops)	
Organic agriculture	Ecological incentive: \$1,000 USD/year	

3.2 Policies to reduce adjacent contamination

Due to cultivated lands are small and dense in Taiwan, chemicals and pesticides from conventional farming are easily spread in organic farms. To solve the problem, except continuously integrating the organic farming areas, Council of Agriculture encourages city governments and civil groups to set up “organic agricultural promotion zones”. In these zones, public infrastructure and production-marketing facilities are prior to construct, and farmers are prior to be counsel to do organic farming or eco-friendly farming. Our target is, through the organic agricultural promotion zones, we can not only reduce the adjacent contamination, but also expand the original organic cultivated areas.

In the past, when the organic agricultural products and in-conversion agricultural products tested contain the prohibited substances, under no circumstances were penalties given. However, after the Organic Agricultural Promotion Act promulgated, if operators validating that they have taken necessary precautionary measures, and their fields are identified by the competent authority to be contaminated by adjacent farms, are exempted from penalties.

3.3 Management of accreditation and certification bodies

Third party certification has been practiced in Taiwan for years. The Taiwan Accreditation Foundation (TAF) has been permitted by COA as accreditation body, which is responsible for accrediting certification bodies. Currently, 13 certification bodies are accredited and responsible for certification of the organic products. Once the organic products are certificated, organic mark are stamped (see figure 2). Organic mark was very similar to marks of fine agricultural products. However, for the welfare of the consumer, the organic mark has been renewed (see figure 3). Furthermore, to increase the information transparency, the information of certification bodies, operators, certification status and certification fee are integrated on an internet platform.

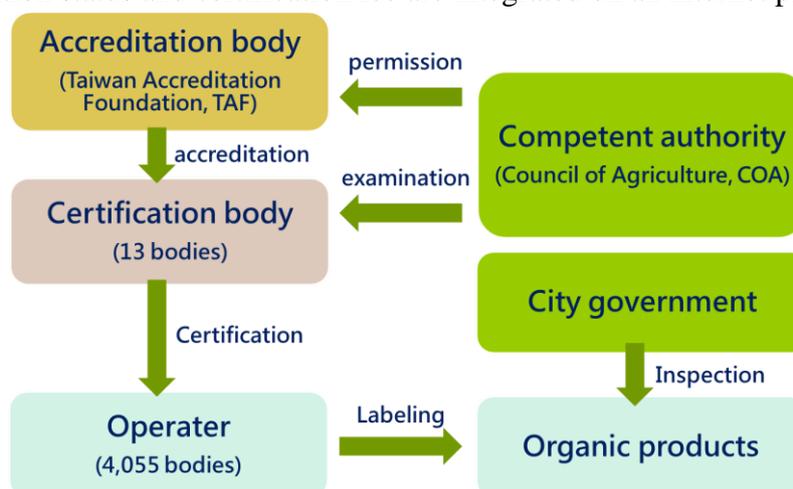


Figure 2. Process of the certification of organic products in Taiwan



Figure 3. Current organic mark

3.4 Counseling marketing and mutual organic equivalence

Counseling production and marketing is the key point to promote organic agriculture. Except raising lectures and conferences to enforce the knowledge of the organic agricultural operators, for domestic markets, we counsel internet platforms, farmers markets, and organic meals for the army and students. For international markets, we practice the mutual organic equivalence.

To promote the domestic market, the government has promoted organic school lunch and meal for the army since 2017. For example, in 2017, 11 cities, 1,264 schools, 780,000 students have eaten 119 tons organic foods per week. In 2018, 18 cities, 2,243 schools, 1,480,000 students have eaten 163 tons organic foods per week, which has increased 37% than 2017.

In 2018, Taiwan imported 12,542 tons of organic products, in which 21% were from United States. But due to the certification and mutual recognition, organic agricultural products in Taiwan have been exported as normal agricultural products. To solve the problem, according to the latest organic agricultural bill, the COA has unilaterally promulgated 22 countries of mutual organic

equivalence, our target is to reach mutual organic equivalence with these countries within 1 year.

4. Enterprise with successful approach-Huixiang Organic Farm

4.1 The Huixiang story

Mrs. Li was a supervisor in an insurance company. As a vegetarian, she started to think of food safety and sustainable agriculture. This idea triggered her to open a natural veggie restaurant in 1994, in which the meal materials are bought from eco-farming households. Few years later, Mrs. Li called 6 young people in action to lead a natural life together, bought lands to do eco-farming, and established Huixiang organic farm in 2005. With the vision of sustainable agriculture, the company operated through six-grade industry, and gradually become a company with 300 workers, 14 organic shops, 9 chain restaurants and having more than 100 organic products.

4.2 The representative of sixth industry

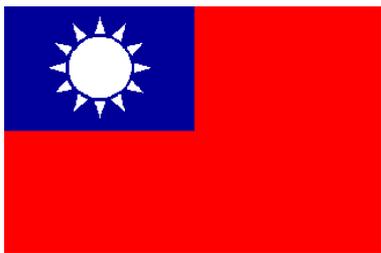
Sixth industry is a combined industry mixed the first agro industries, the secondary manufacturing industries, and the third service industries. In 2007, Huixiang called 40 young people return to their home town and established the cooperative. It was the origin of the sixth industry from the farm to the consumer. The sixth industrial chain of Huixiang became more complete in 2014, when the company constructed its miller, process factory and courier station, which combined cultivation, organic products, a restaurant, and activities of organic farm. To follow the rapid step in the era of internet, the company not only cooperate with various market channels, also established its internet platform oneearth.com.tw, create its own internet brand.

5. Conclusion

As the awareness of food safety and environment protection raised, organic agriculture has become an issue. In 2019, the Organic Agricultural Promotion Act has opened a new era for this industry, which emphasizes on counseling the producers, improving the certification process, and enhancing the marketing. Can the new policy attract farmers to change the farming customs and reach the target of 15,000ha organic agricultural and eco-farming land areas in 2020? Can the mutual equivalence policy open the export market of organic products in Taiwan? It is worth to observe the subsequently development in organic agroindustry in Taiwan under the new policies.



The Current Developments and Policies in organic agriculture in ROC (Taiwan)



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Outline

- ❖ **Agriculture in Taiwan**
 - Geography and climate
 - General agriculture
- ❖ **Organic agriculture**
 - History of OA in Taiwan
 - Current statistics
 - Policies to OA
- ❖ **Case study-Huixiang organic farm**

Agriculture in Taiwan

Taiwan's Profile

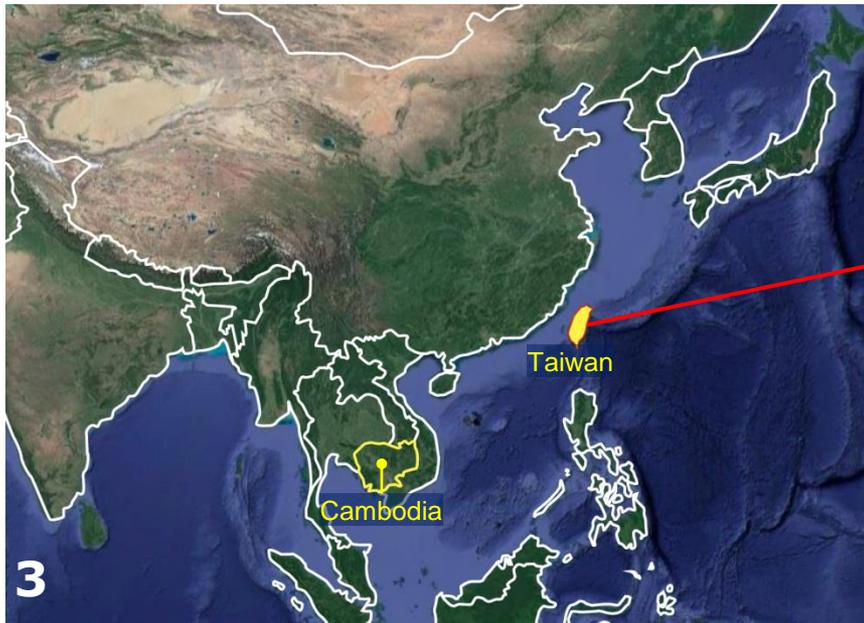
Area: 3.6 million ha

Population: 23.5 million

Agricultural land area (2017): 793,027 ha

Farming households (2017): 775,310

80% < 1 ha ; 55% < 0.5 ha



Agriculture in Taiwan

Climate in Taiwan

Tropical & subtropical

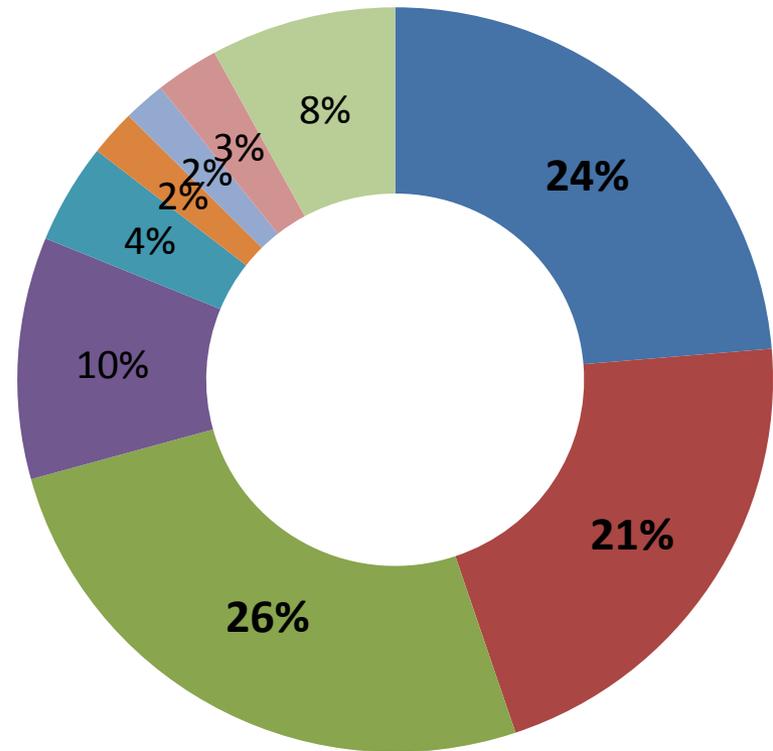
Summer 27~30°C/winter 15~22°C

Rainfall: concentrate in summer

Typhoon: 3-5/year



Agricultural land use(2018)



- Rice
- Fruits
- Special Crops
- Forage Crops
- Mushroom/shiitake
- Vegetables
- Coarse Grain
- Flowers
- Green Manure Crops

Organic agriculture in Taiwan?



Organic Agriculture in Taiwan

Assess the feasibility
of organic agriculture

1986



1988

pilot project



Conferences discussed
regulation

1995



1993

seminar of
sustainable agriculture



OA certification were
executed by civil groups

2002



1999

COA promulgated regulations
of organic agricultural
production and certification



regulations of OA
product management

2003



OA was set as main
scheme of administration

2009



2007

**Agricultural Production
and Certification Act**



**Organic Agriculture
Promotion Act**

2019



Start promulgating
eco-friendly farming

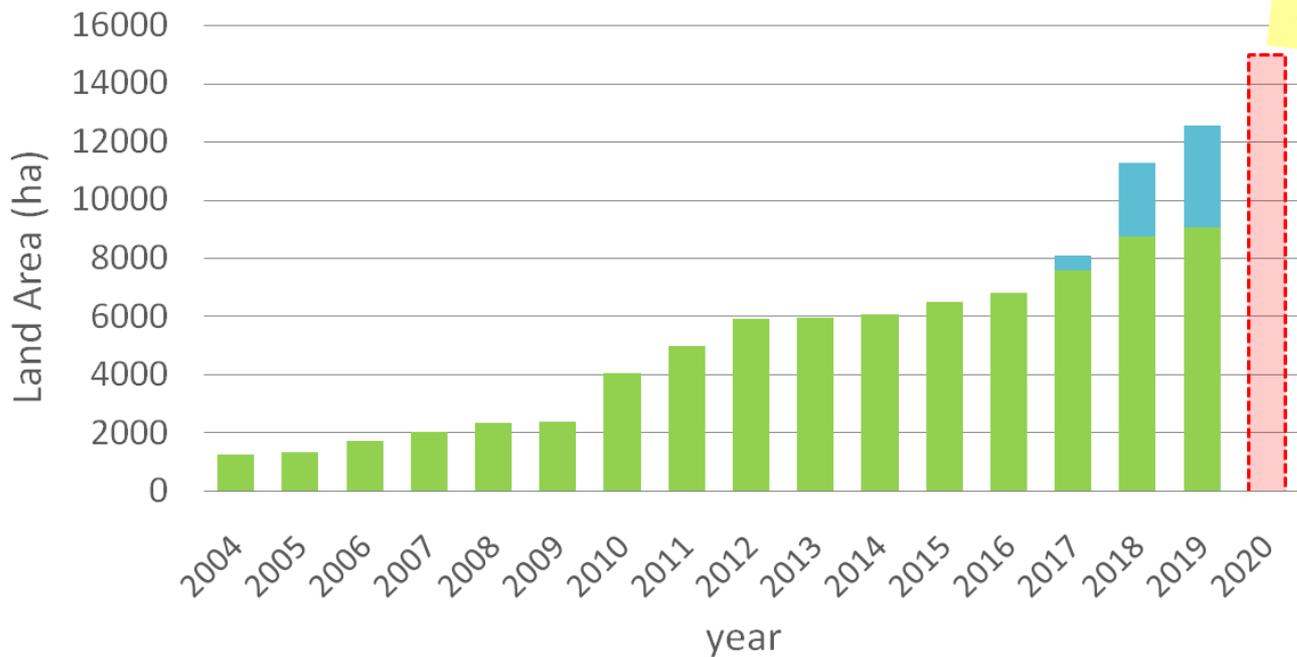
2017



To be
continued...

Organic Agriculture in Taiwan

Organic Agricultural Land Areas (2004-2019)



FiBL Statistics 2017
 10th of Asia
 77th of the world

Land Use of Organics	
Crops	Areas(%/ha)
rice	26.7%
vegetable	29.0%
fruit	13.6%
tea	4.4%
others	25.3%
total	12,650

1.5% of agricultural land

■ Organic Agriculture
 ■ Eco-friendly Farming
 Target

- ↓
- ✓ Certification standard
 - ✓ Certified
 - ✓ Organic mark

- ↓
- ✓ Similar to organic
 - ✓ Officially approved group
 - ✓ Registered

❖ Organic Agriculture Promotion Act

- Promulgated on May 30th, 2019
- The **1st organic agricultural bill**
- Important policies
 - **Counsel** organic agriculture & prevent adjacent contamination
 - Third-party **certification**
 - Promote the **markets**
- Reach **15,000ha** in 2020

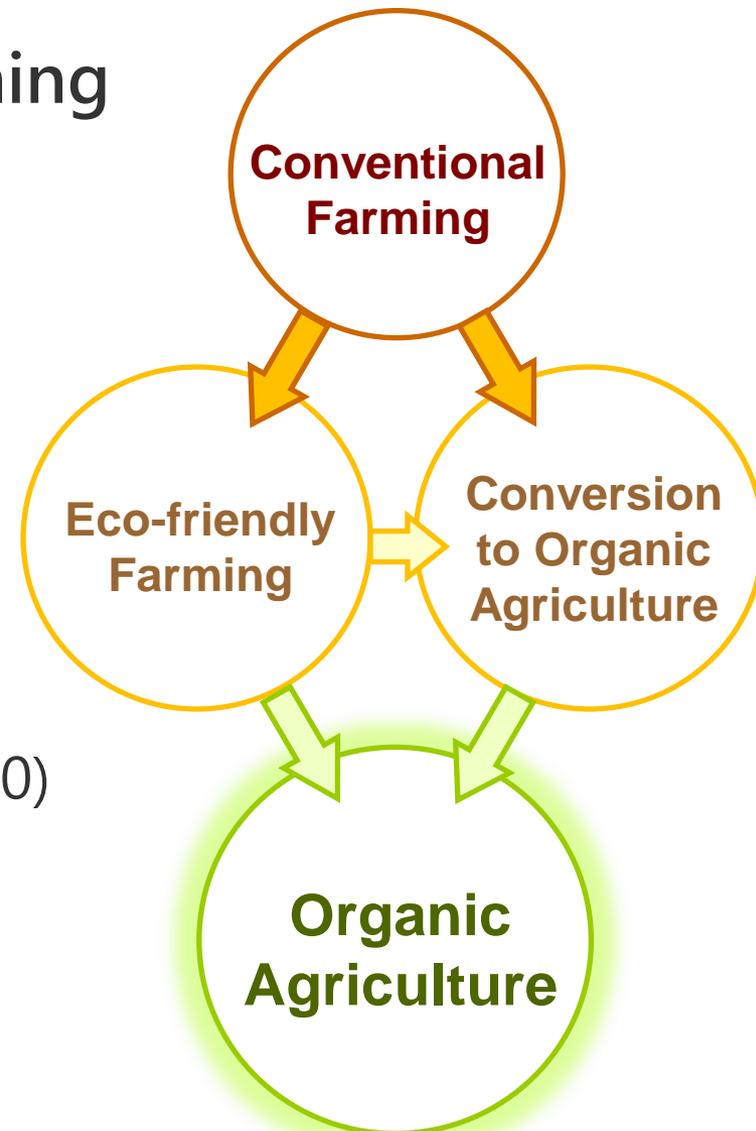


Counsel eco-friendly farming and OA

❖ Push farmers to do organic farming

---Incentives and subsidies

- Farming cost, certification fee, technical threshold
- Eco-friendly farming
 - 3 yrs ecological incentive (\$1,000)
- Conversion to OA
 - 3 yrs ecological incentive (\$1,000)
 - 3 yrs subsidy for crop (\$1,000-\$1,500)
- Organic Agriculture
 - Ecological incentive (\$1,000)



Counsel eco-friendly farming and OA

❖ Mitigate the cost of organic farming

- Subsidy of certification fee
 - 90% off
- Rental discount
 - Rental fee-40% off
 - Insurance of rental period (10 yrs)
- Subsidies of facilities(equipment)
 - Greenhouse and net house
 - Agricultural machinery & equipment
 - Process facilities
- Subsidies of material
 - Domestic organic fertilizer
 - Biological control material



Counsel eco-friendly farming and OA

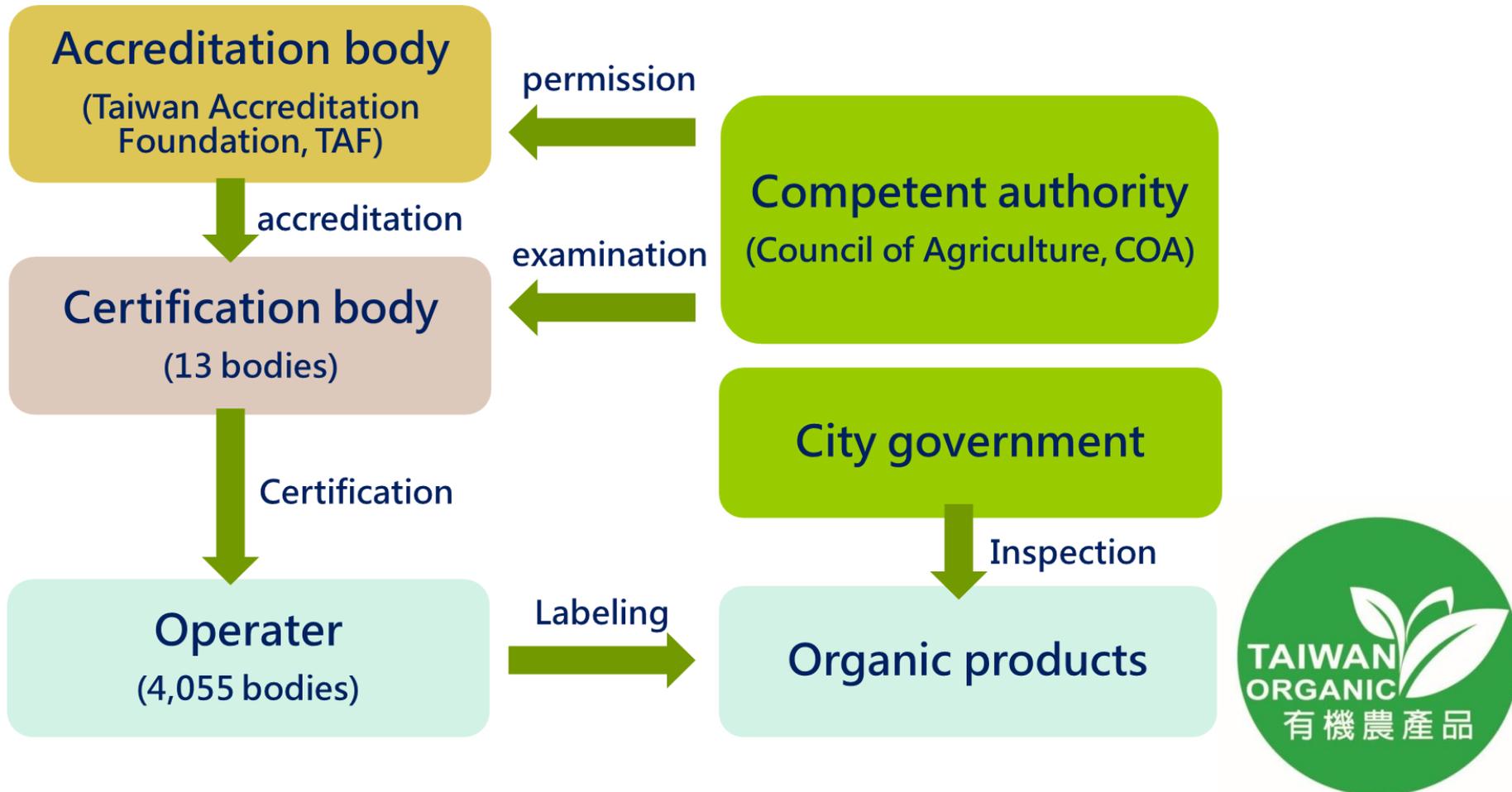
❖ Organic agricultural promotion zones

- Public infrastructure & production-marketing facilities
- Conventional farmers are counseled to do organics
- Organic agricultural promotion zones
 - Prevent adjacent contamination
 - Expand the original organic cultivated area



Third-party certification

❖ Process of certification



Promote the markets

❖ Enhance marketing and expand channels

- Internet platforms, farmers markets, organic meals for army and students.
- Organic school lunch
 - 2017---1,264 schools
 - 2018---2,243 schools

WHAT ARE WE GOING TO EAT FOR THE LUNCH TODAY?

行政院農業委員會
COUNCIL OF AGRICULTURE, EXECUTIVE YUAN

AS 台灣優良農產品 98888888

TAIWAN ORGANIC 有機農產品

WHAT?

WHAT IS OUR LUNCH?

I AM HUNGRY!!

safe food

non-chemicals

traceable

TAP 產制優良農產品

I PRODUCE ORGANIC PRODUCTS, NO WORRY!

NO DOUBT THE SAFE AND HEALTHY FOOD!

5070000115

The infographic illustrates a school lunch menu with various food items and their certifications. A girl asks 'WHAT ARE WE GOING TO EAT FOR THE LUNCH TODAY?'. The menu includes a fork and spoon, organic chicken and vegetables, a banana (non-chemicals), safe food (meat and vegetables), and rice with an egg (traceable). A farmer says 'I PRODUCE ORGANIC PRODUCTS, NO WORRY!' and a boy says 'NO DOUBT THE SAFE AND HEALTHY FOOD!'. Logos for AS (Taiwan Excellent Agricultural Products) and TAIWAN ORGANIC (Organic Products) are shown. A QR code with the number 5070000115 is also present.

Promote the markets

❖ Open the international market of organic product

- International market
 - Imported 12,542 tons (2018) mainly from USA(21%)
 - Exported as normal agricultural products
- Mutual organic equivalence
 - 22 countries are unilaterally promulgated
 - Reach mutual organic equivalence in 1 year (30th, May, 2020)



Enterprise with successful approach

Company name: Huixiang Organic Farm
(oneearth.com.tw)

- 1994 ● Natural veggie restaurant
- 2005 ● Contract organic farming
Established Huixiang Organic Farm



Enterprise with successful approach

- 2007 • Establish organic cooperative (Started the sixth industry)
- 2014 • First organic shop and miller
- 2017 • Internet platform



Enterprise with successful approach

Sixth industry



Enterprise with successful approach

❖ Status of the company

- 300 workers
- 14 organic shops
- 9 chain restaurants
- 100+ organic products

❖ Vision of the company

- Organic village
- Organic processing district
- Organic school

Organic map
of Huixiang



Conclusion

❖ Challenge of OA in Taiwan

- High cost
- Adjacent pollution
- Technical threshold
- Marketing

❖ Organic Agriculture Promotion Act

- Counsel conventional farmers to change
- Integrate the organic farms
- Third party certification
- Enhance the domestic market, open the international market

❖ Reach 15,000ha in 2020

A vibrant, stylized illustration of a farm scene. The background is a light blue sky. The foreground is a green field with a white path. In the middle ground, there's a pond with yellow ducks. To the left, a blue truck is carrying stacks of yellow produce. In the foreground, two people wearing hats are standing and talking. The overall scene is bright and cheerful.

**THANK YOU
FOR YOUR ATTENTION**

References

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- ❖ **Agriculture and Food Agency**
(<https://www.afa.gov.tw/cht/index.php>)
- ❖ **Huixiang organic farm**
(oneearth.com.tw)