



สมาคมผู้ผลิตอาหารสัตว์ไทย  
THAI FEED MILL ASSOCIATION

## Summary of Thai Feed Mill Association's policy and action on the environmental sustainability

August 2023

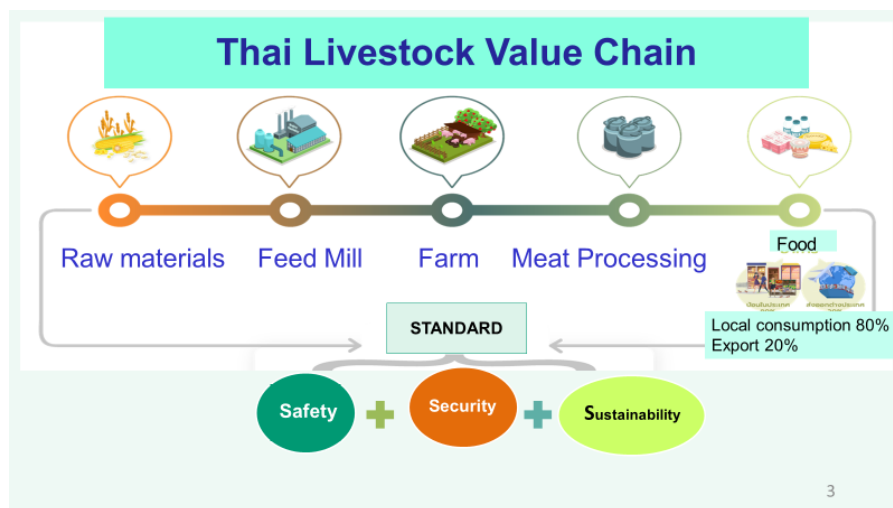
It is well known that nowadays the environmental issue is discussed intensively, in every human's activities, especially economic/trading issues, the product manufacturing which causes global warming and climate change. The rapid change of climate drives the leading countries as USA and EU, the key markets of several Thai commodities, to announce policy of production without destroying the environment. Up until year 2021, the prime minister announced to proceed the 7-years-plan, "Bio-Circular-Green Economy: BCG Model" (year 2021-2027).



TFMA has realized this issue for over 10 years and conducted relevant activities constantly, i.e., year 2012 TFMA employed University of the Thai Chamber of Commerce (UTCC) to study and prepare the 20 years feed strategy (year 2012-2032). The study summary shows 3 key issues, i.e., (1) Safety, (2) Security and (3) Sustainability, to be driven by a standard system for acquiring the qualified and nutritious feed and supporting economic, social and environmental aspects.

## Enhancing with research

Besides preparing the 20 years feed strategy (year 2012-2032), TFMA carried out study on research project in several dimensions to get fundamental data as a starting point on development and enhancement, including the efficiency improvement on production, the manufacturing standardization to sustainability in the industry.



In year 2013, TFMA established a committee: Thai Sustainable Fisheries Roundtable (TSFR) consisting 1. National Fisheries Association of Thailand, 2. The Thai Overseas Fisheries Association, 3. The Thai Fishmeal Producers Association, 4. Thai Feed Mill Association, 5. Thai Frozen Food Association, 6. Thai Shrimp Association, 7. Thai Tuna Industry Association, 8. Thai Food Processors Association, to create collaboration on the development of the manufacturing goods and products of Thai fisheries, to solve the Illegal Unreported and Unregulated fishing or IUU Fishing, beginning with Trawl Fishery Improvement Projects to level up the fishmeal production to sustainable standard, having the public sector as the Department of Fisheries to participate the project and being budget supported by Agricultural Research Development Agency (ARDA). In this regard, it is to study Thai Fisheries status of both Gulf of Thailand area and Andaman coast, for Thailand initial database and preparing the improvement and development plan (The project has been running since year 2016 to present).



# 1. Project of Standard Sustainable Maize Production : SSMP

## 2. Project of the sustainability indicators based on international guideline of maize production

**Cooperation Agency:** National Science and Technology Development Agency (NSTDA)

**Objective:** To assess the sustainability of maize production in Thailand in 4 dimensions; environment, social, economy and management in the supply chain according to the SAFA indicators.

**Method:** To compare between the cultivation in general and cultivation with GAP (Good Agriculture Practice) as a base for further development.


**Period Duration:** 2015-2017 (18 months)

**Outcome:** Cultivation with GAP provides better results in all dimensions; increasing productivity per unit, reducing production costs, using less water and chemicals. Thus creating a low-carbon society.

**Sustainability Assessment of Food and Agriculture systems (FAO, 2013)**















The diagram illustrates the SAFA framework, which assesses sustainability across 17 indicators grouped into four dimensions: Environmental (Climate Change, Land Use, Water, Biodiversity, Soil, Ecosystems), Economic (Air Quality, Chemicals, Energy, Materials), Social (Labour, Human Health, Community), and Governance (Governance, Corporate Ethics, Cultural Diversity). Each indicator is represented by a colored segment in a circular diagram, with 'SAFA' at the center.

TFMA constantly conducted, forming Thai Livestock and Aquatic Consortium (TLAC), as a collaborative organization to enhance Thai livestock production throughout the chain for serving the sustainable development issue which includes economic, social and environmental aspect. TLAC's members are the associations in the livestock chain. At present there are 14 associations, i.e., 1.Thai Feed Mill Association, 2.Thai Swine Veterinary Association, 3.Thai Poultry Veterinary Association, 4.Thai Ruminant Veterinary Association, 5.Thai Aquatic Veterinary Association, 6.The Animal Husbandry Association of Thailand under the Royal Patronage, 7.Animal Health Products Association, 8.Thai Seed Trade Association, 9.Thai Holstein Friesian Association, 10.Thai Dairy Industries Association, 11. Thai Shrimp Association, 12.Thai Broiler Processing Exporters Association, 13.Broiler Breeder Association, 14.Thai Fish Culture Farmers Association and 15. CP Axtra Public Company Limited (recently joined in May 2023 as an important agency that connects producers and consumers both domestically and internationally).




## Thai Livestock and Aquatic Consortium

### MEMBER

 <b>1. THAI FEED MILL ASSOCIATION</b>  <b>2. THE ANIMAL HUSBANDRY ASSOCIATION OF THAILAND</b> <small>UNDER THE ROYAL PATRONAGE OF H.R.H. PRINCESS MAHA CHAKRI SIRINDHORN</small>  <b>3. THAI SWINE VETERINARY ASSOCIATION</b>  <b>4. THAI POULTRY VETERINARY ASSOCIATION (T.P.V.A.)</b>  <b>5. THAI RUMINANTS VETERINARY ASSOCIATION</b>  <b>6. THAI AQUATIC VETERINARY ASSOCIATION</b>  <b>7. ANIMAL HEALTH PRODUCTS ASSOCIATION</b>	 <b>8. THAI SEED TRAD ASSOCIATION</b>  <b>9. THAI HOLSTEIN FRIESIAN ASSOCIATION</b>  <b>10. THAI DAIRY INDUSTRIES ASSOCIATION</b>  <b>11. THAI SHRIMP ASSOCIATION</b>  <b>12. THAI BROILER PROCESSING EXPORTERS ASSOCIATION</b>  <b>13. BROILER BREEDER ASSOCIATION</b>  <b>14. THAI FISH CULTURE FARMERS ASSOCIATION</b>
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### OBJECTIVE

To enhance production of Thai livestock products throughout the supply chain to meet sustainable development on economics, social and environmental aspects.



**15. CP Axtra Public Company Limited**

In February 2022, TLAC signed Memorandum of Understanding (MOU) with King Mongkut's University of Technology Thonburi (KMUTT) as academic advice to implement a project on Greenhouse gas Reduction in Thai livestock industry chain (Thai Livestock Technical Consortium for Climate Neutrality (LCCN) and set target to be Climate Neutrality by 2040 by setting up joint working group of 2 parties, divided into 4 groups of selected products: maize, fishmeal, meat cattle and milch cow.



## Academic Cooperation



Thai Livestock and Aquatic Consortium Cooperate Signed a Memorandum of Understanding (MOU) with King Mongkut's University of Technology Thonburi (KMUTT) to implement a project on greenhouse gas reduction in the Thai livestock industry chain (Thai Livestock Technical Consortium for Climate Neutrality (LCCN) on February 9, 2022



**TARGET : Climate Neutrality by 2040**

**Operating guidelines:**

- Study and measure greenhouse gas emissions
- Determine Product Life Cycle, Carbon Footprint Assessment
- Develop technology to reduce GHG emissions

**Set up a joint working group of 2 parties, divided into 4 groups, according to jointly selected products:**

**1. Working Group on Maize**



**2. Working Group on Cattle**



**3. Working Group on Cow Milk**



**4. Working Group on Fishmeal**



KMUTT began measuring greenhouse gas emission, firstly in maize production in the August, 2022. The present process is collecting the cultivating data of the post-farming season to assess the figure of carbon emission in maize production, and find out a solution to reduce the carbon emission in the process.



## Proactive activities to keep up with current situation

Besides the research, which is an important start, TFMA conducts many proactive actions, as on June 17, 2015 TFMA signed Memorandum of Understanding (MOU) to solve the issue of smog from open field burning of agricultural residues with Ministry of Natural Resources and Environment, the Thai Maize and Produce Traders Association and Charoen Pokphand Group. During period of August - October, 2015, participated the area visit to educate farmers about the Good Agricultural Practices (GAP) of maize cultivation, and the registration of maize farmers, to solve the problem of smog in 9 provinces (Chiang Mai, Chiang Rai, Mae Hong Son, Tak, Lamphun, Lampang, Phrae, Prayao, Nan)

Later, by the end of year 2016, TFMA supported farmers in Nan province to change career from cultivating maize to planting perennials, which is the collaboration of TFMA and Nan Community College. There are 6 master trainers from Amphoe Wiang Sa, Nan Province, with an area of 16 hectares, to be the model for the farmers in the area who aimed to change their career and survive along with forest saving under the Wearing Hats, Putting on Shoes on Bald Mountain Project in Nan Province which was 5 years project that ended since the past ending year 2022.




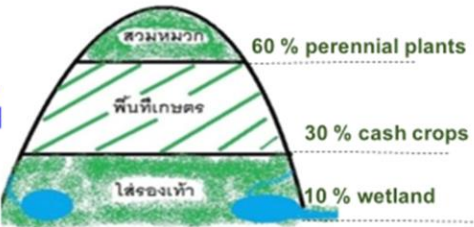
### 4. Project in Nan Province

**Cooperation Agency:** King Mongkut's University of Technology Thonburi and Community college in Nan

**Objective:** To restore watershed forest and ecosystem, to promote the crop cultivation and develop integrated agricultural systems in order to improve the better quality of life in study area.

**Project duration:** 5 years (2016-2020)

**Supported by:** TFMA 1 million baht (area 16 hectare)



During the projects, TFMA informed its members to support the purchasing policy in order to in line with sustainable business model: 1. Not support smuggling, 2. Purchase products from legal area. 3. Not purchase products from stubble burning area. TFMA also announced its policy for developing competition competency by leveling up the environment protection, supporting human rights measures and transparency management with good governance, on July 6th, 2021.

## Collaboration with other sectors

Besides forming committee of Thai Sustainable Fisheries Roundtable (TSFR) in year 2013 and Thai Livestock and Aquatic Consortium in year 2021, TFMA also coordinates the cooperation with public sectors, such as Department of Internal Trade, Department of Livestock Development, Department of Agriculture, to participate in several dimensions to achieve the goal. Furthermore, TFMA also approached related business organizations, i.e., Crops Grower & Merchandise Association, the Thai Tapioca Trade Association, Thai Rice Mills Association, to join the development on the standard of animal feed raw material production, firstly by achieving the GAP standard.



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