

# THE NEW THEORY AGRICULTURE

INTEGRATED AND SUSTAINABLE  
AGRICULTURAL SYSTEM



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# THE NEW THEORY AGRICULTURE

In 1994, His Majesty King Bhumibol Adulyadej revealed how his ideas should apply to agriculture. His scheme was based on a self-reliant family which through progressive stages was integrated with the local and national economies. The press promptly dubbed this the 'New Theory'. While the name was perhaps misleading, as several NGOs, academics and local wise men had advocated similar schemes, it stressed how much the king's scheme flew in the face of the orthodox quest for growth through higher investment and large-scale development (Center for research on Sustainable Leadership, 2018)



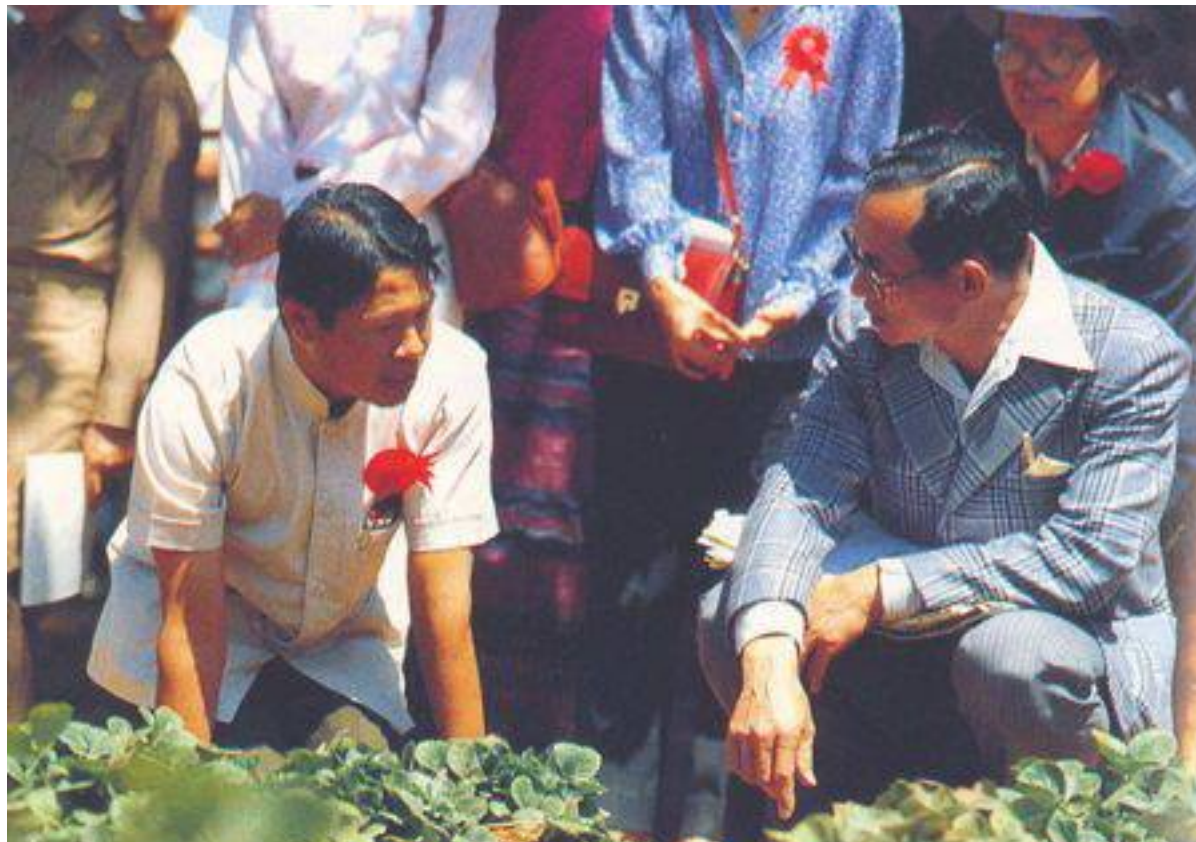


His Majesty believed that if the farmers acted with due consideration based on knowledge of past price fluctuations of agricultural commodities they would see how risky it is to concentrate all one's resources in such commodities expecting large profits. And if they adopted the principle of self-immunity, they would prepare for price changes in the market by producing enough to eat as a priority and only then think of selling any surplus.



In a more tangible sense, His Majesty developed the New Theory as a system of integrated and sustainable agriculture, embracing his thoughts and efforts in water resource development and conservation, soil rehabilitation and conservation, sustainable agriculture and self-reliant community development. The aim is to optimize farmland. (The Chaipattana Foundation, 2020)

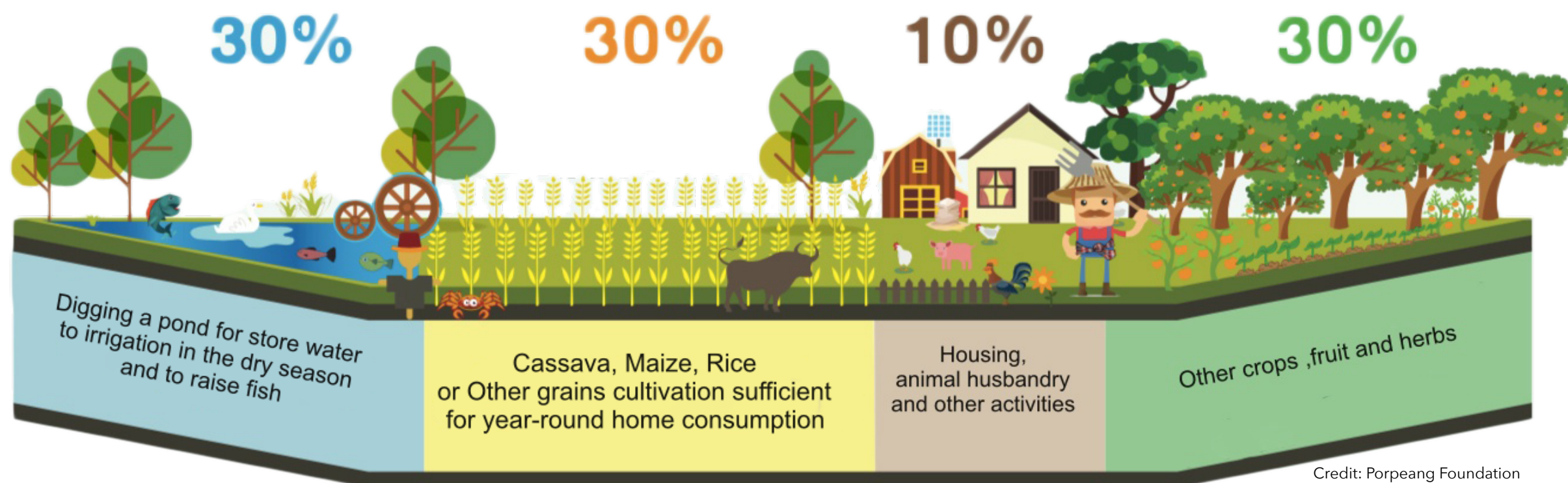




From his frequent visits to the people in the rural areas throughout the country, His Majesty found that the majority of farmers were still in poverty. He therefore worked with agricultural experts and implemented his own farming experiments to develop guidelines for proper management of land and water resources. These guideline have three stages :



## First Stage : Sufficiency at the household level, or the state of self-reliance



The first stage of the scheme was a farm on a 15 rai (about 6 acres). Divide into 4 parts

In order for the farmers and their families to make a living, they should have at least 4 - 6 acres of land. To achieve stable and sufficient food supplies, farmers should divide their land into 4 parts.





**The first part : about 30 percent** of the land is for digging of 4 meters deep to store water for agriculture uses. The pond or reservoir can also used to raise fish as an important source of protein and including growing aquatic plants to serve as food for family.





Credit : Pinterest

**The second part : about 30 percent** is set aside for main food such as cassava, maize rice or wheat cultivation during the rainy season for the family's daily consumption throughout the year to cut down on expenses and allow the farmers to be self-reliant.





Credit : Pinterest

**The third part : about 30 percent** for growing fruit, perennial trees, vegetables, field crops and herbs for daily consumption. If there is any surplus, it will be sold.





Credit : Pinterest

**The last part : about 10 percent** for housing, animal husbandry, roads and other structures.





Soil fertilisation, weed control and pest control used natural methods. The production system maximised synergies between livestock and crops in order to make the household self-reliant as well as provide some surplus for exchange on the local market. The king stressed that this was a basic model which could be easily modified to suit holding of larger or smaller sizes, and to different

regions where soil, water and cropping conditions varied. On this farm, a family could provide everything for themselves and avoid debt, excessive risk and exploitation by others. The king admitted that this model “was not easy to implement, because the one who uses it must have perseverance and endurance”. (Center for research on Sustainable Leadership, 2018)



## Second Stage : Being sufficient enough to rely on oneself, based on being economical and reducing the expenses.



Credit : Pidthong Foundation

Fruit processing group Ban Sai Kaow Community Enterprises, Pattani, Thailand

The second stage of the New Theory Agriculture aimed to create self-reliance at the community level by increasing the production and availability of local goods and services through mobilising the surplus resources of households within a community. This might be done through cooperative forms of production, community saving groups, community health centres and community



Credit : Phidthong Foundation

Vegetable farmers group, Ban Khok Lam Community Enterprises, Udon Thani, Thailand

forms of social safety nets. The idea was to increase the local provision of goods and services by introducing some division of labour to achieve economies of scale and scope, while still relying principally on the community's own capacity and resources. Exchange with the outside should increase, but local exchange was always preferable because it saved on transport and other transaction costs.





Soil and Plant species preparation



Quaternary canal

After the first stage has been realized, the farmers are encouraged to form groups or cooperatives to carry out farming and agricultural activities in the following areas :

## **(1) Production**

Farmers must cooperate in the production of crops, starting from preparing the soil, obtaining plant species, fertilisers, water supply etc. for cultivation





Community rice drying yard at Phitsanulok, Thailand

## (2) Marketing

When the cassava, maize, rice or the other grain are harvested, there must be preparations in many areas to gain the highest profits from them : preparing a common drying space (for cassava, maize, rice and other grain), silos, rice mills, as well as cooperating in selling the produce to obtain good prices and cut down on expenses.



Community rice mil at Trat, Thailand





Credit : pinterest

### **(3) Living conditions**

At the same time farmers must maintain a certain degree of proper living with sufficient basic requisites such as salt, sugar, clothing etc.





Mobile Medical Unit, Thailand



Help fund for flood victims, Thailand

## (4) Welfare

In each community there should be necessary welfare and services, such as a health centre in time of sickness, fund providing catastrophic disaster, or loans to be used to carry out activities in the community.





Career Promotion Program for student in Border Patrol school, Thailand.



Student in Border Patrol School, Prachuap Khiri Khan, Thailand.

## **(5) Education**

The community should play an activity role in promoting education, for example, setting up an education fund for children in the community.





Coconut farmers, Sai Buri, Pattani, Thailand

## (6) Society and religion

The community should be the centre for social and mental development, with religion as the binding factor.

All the aforementioned activities must receive cooperation from all parties concerned whether government or private sector, as well as members of the community.



Narathiwat Farmers Community Stage, Narathiwat, Thailand



## Third Stage : Loan and Credit outreach



At the third stage, the community could then engage with the economy beyond the village to sell its excess products, to gain the technology for such projects as founding its own rice mill, to tap the services of banks and other economic institutions, and to negotiate with corporations for mutual advantage. Although the king presented this theory as just these three stage, progress

towards an ever broader and more complex economy was implied. In another birthday speech, he explained : “... *Progress is not just about planting enough rice to eat. There must be enough to create schools, even works of art, so that Thailand prospers in every way, with no hunger or poverty, [enough] food for body and soul, and many other things...*”





## PRINCIPLES AND METHODS

1. The New Theory Agriculture system based on Sufficiency Economy by which farmers can subsist at an economical level first, provided that the community must unite and cooperate in helping one another along the line of mutual-help tradition to cut down







2. Since rice is the staple food consumed by every household (in Africa are cassava, maize, black eyed-bean), it is estimated that each family must grow rice on approximately 8,000 square meters of land to have enough rice for year-round consumption without having to buy it at an expensive price, thus enabling them to be self-reliant.







3. There must be a sufficient reserve of water to be used for cultivation in the dry season or during the dry spell. Therefore, it is necessary to set aside a part of the land to dig a pond on the principle that there may be enough water for cultivation the whole year round.





However, the size of the pond depends on the topography and the environment as follow :

- If the land is to be used for cultivation that relies on rainwater, then the pond should be deep to prevent water from evaporating too much, so there will be enough water for the whole year.
- If the land is in an irrigated area, then the pond can be deep or shallow, and narrow or wide as may be suitable, since there is a continual supply of water.



Nevertheless, the ratio is only a rough formula or principle that can be changed or improved depending on the conditions of the terrain, the amount of rainfall, and the environment. For example rains constantly or in areas where water sources are available to refill the pond, the size of the pond can be reduced to make room for other uses.

There are several factors involved in carrying out the New Theory Agriculture depending on the topography and the environment of each locality. Therefore, farmers should be advised by officials. The

most significant thing is the cost of investment is rather high, especially for digging the pond. Farmers must receive help from the government, foundation, and the private sector.

While the pond is being dug, the topsoil which is fertile should be piled side to be used for growing plants later on by spreading it over the lower level soil which is less fertile, or it can be otherwise utilized to build the edge of the pond or beds to grow fruit trees.





## BENEFITS OF THE NEW THEORY AGRICULTURE

- 1.The people can live moderately at an economical level, without having to starve, and can be self-reliant according to the 'Sufficiency Economy' philosophy.
- 2.In the dry season when water is scarce, the water stored in the pond can be used vegetables that can thrive on a small amount of water without having to rely on the irrigation system.
- 3.In years when it rains in season with rainwater available all year round, the New Theory Agriculture can earn income for the farmers who do not have to worry about expenses.
- 4.In case of floods, farmers can recuperate and help themselves to a certain degree without needing much assistance from the government, a save on the budget in a way.



# References

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