



The Volunteer Soil Doctors

Introduction

The Land Development Department (LDD) has a primary mission to plan an optimal use of soil and land resources for sustainable agriculture management. This focuses on farmer as the center of balanced development and in accordance with the strategic plans of the LDD (year 2017-2036). This aims at enabling farmers to produce agricultural products in response to changes in the global market. However, Thailand's agricultural land has deteriorated from improper land use, causing a decrease in agricultural productivity and affecting income and quality of life of farmers. In addition, the land use changed from population increase has exacerbated land degradation. The Food and Agriculture Organization (FAO) of the United Nations reports that if no action is taken to reduce the level of soil and land degradation, the topsoil will be depleted in 60 years. This will negatively affect agricultural production, human well-being and impact on sustainable development (Sustainable Development Goals; SDGs). Therefore, farmers need to improve the land for efficient and sustainable agricultural use.

In the past, farmers must come and contact the LDD stations by themselves to request the services from the LDD. Most farmers are unable to travel easily and have travel expenses, and sometimes the information and services were delayed, not responding to the needs of farmers. LDD which recognized the importance that farmers should have access to services and land development information timely and thoroughly manners. Therefore, the **"Volunteer Soil Doctors"** program was established in 1995. Volunteer Soil Doctors refer to local farmers who are interested in soil and land improvement and volunteer to help the LDD in agricultural land development. They work as partnership with LDD staff in providing services and disseminating the knowledge gained to the general farmers who seek advice for land management. Appointing a volunteer soil doctor to represent the LDD at the local level will help to pass on the knowledge on land management to other farmers and interested parties at the local level. Volunteer Soil Doctors are therefore being trainers for farmers in the communities. From the success of the Volunteer Soil Doctor Program and to honor Soil Doctors who has served as a volunteer in driving the sustainable development of the land for a long time, LDD therefore designated February 10 annually as Volunteer Soil Doctor Day.



Volunteer Soil Doctors Network

Volunteer soil doctors collaborate with LDD systematically through an established network structured in accordance with the organization of the Thai territory:

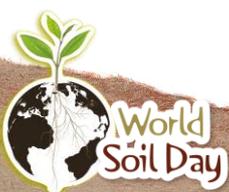
1. Village volunteer soil doctors; they represent the LDD on passing the knowledge on land management to farmers and interested parties in the communities.

2. Sub-district volunteer soil doctors; they are soil doctors who have been selected from village volunteer soil doctors. This is due to they have knowledge and potential to transfer such knowledge to other farmer. Sub-district volunteer soil doctor is being the leader of the volunteer soil doctor network in the sub-district, being the coordinator between the village volunteer soil doctor, district volunteer soil doctor in the district and land development station including other agencies within the sub-district.

3. District volunteer soil doctors; they are volunteer soil doctors who have been selected by sub-district volunteer soil doctors and they must be a coordinator between volunteer soil doctors and agencies within the district.

4. Provincial volunteer soil doctors; they are outstanding soil doctor who has been selected by district volunteer soil doctors and they must work and have vision to be a connection between volunteer soil doctors and agencies within the province. The outstanding volunteer soil doctor can be able to hold up to 4 positions (village, sub-district, district and provincial levels).

At present, there are more than 77,674 volunteer soil doctors working across the country (as of year 2022). They play an important role and being mechanism in transfer knowledge and technology in soil and land development to increase the efficiency of agricultural production in Thailand. Volunteer soil doctors at all levels also act as village volunteer soil doctors. Most of the farmers joined the volunteer soil doctor program because they are affected by the use of chemicals in agriculture, causing health problems. The soil doctor program provides knowledge that can help reduce production costs, increases income. There is another factor that motivates farmers to join the volunteer soil doctor program is to commemorate and adhere to the sufficiency economy philosophy of the royal initiative of His Majesty the Late King Bhumibol Adulyadej (Rama IX).



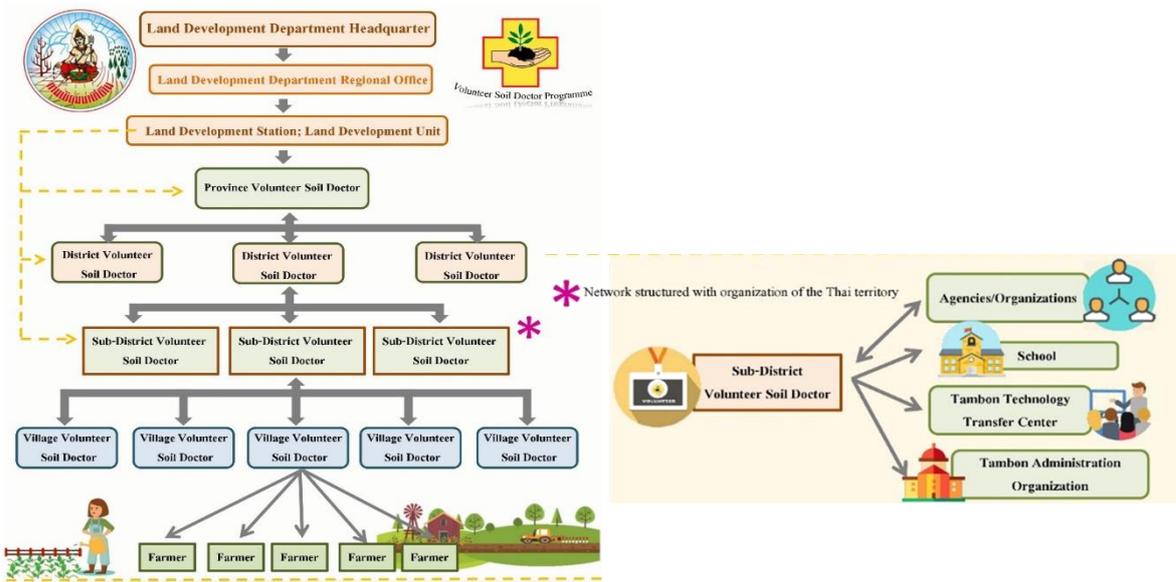


Figure 1 Volunteer soil doctor network

Soil Doctor's mission

Volunteer Soil Doctors will work as partnership with the LDD in helping other farmers in the community to achieve a better understanding of soil conservation and sustainable soil resource management and improve their agricultural land. To allow volunteer soil doctors to work effectively, volunteer soil doctors will be fully supported in terms of land development technology and innovations. In addition, volunteer soil doctors will be granted the permission to set up a Land Development Technology Transfer Center with fully supported by the Department of Land Development and other agencies in the local authorizations.

The 5 basic missions of the volunteer soil doctors are:

1. Volunteer soil doctors are entitled to carry out public relation activities in making announcements; delivering messages to farmers; inviting farmers to participate in observation, study tour, workshop etc.
2. Volunteer soil doctors established service centers for information and technology transfer through demonstration plots
3. Volunteer soil doctors will be able to provide basic recommendations and answers to possible questions they may receive from farmers.
4. Volunteer soil doctors are also entrusted to distribute to farmers agricultural material such as lime, fertilizer, seeds etc.

5. Volunteer soil doctors are assigned to help other farmers through transferring knowledge on land suitability for crop production and to assist farmers practice sustainable agriculture effectively.

In addition, volunteer soil doctors are also assigned to assist farmers in formulating agricultural plans and management as appropriate especially for soil improvement and soil and water conservation. Volunteer soil doctors also act as representatives between farmers and LDD officials, and support the government in gathering data for other purpose. When working in the role, volunteer soil doctors must pay attention to suggestions, needs, problems and questions from farmers in order to present them to the LDD. Volunteer soil doctors are sometimes invited to provide training to interested government agencies.

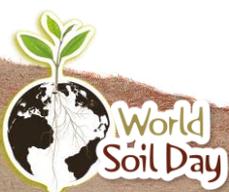
How the soil doctors are selected ?

1) Qualifications of Volunteer soil doctors at Different Levels.

- No gender limit, age not less than 18 years old, or have reached the age of majority
- Willing to work as a volunteer soil doctor
- Living in that agricultural area
- Willing to work in land development and ready to use technology and products of the LDD
- Having good health
- Previously trained on land development from the LDD
- Willing to coordinate with other volunteer soil doctor and being connection of volunteer soil doctors in the sub-district
- Obtain the consent of the spouse

Note: For those who are appointing to be the volunteer soil doctor, it is not necessary to have all the qualifications in above-mentioned, but to be at the discretion of the person assigned to select (Head of the Land Development Unit is the person who screens and considers the applicant's qualifications and proposes to the Director of the Land Development Station consider appointing)

2) Selection and appointment of volunteer soil doctors at various levels to be in accordance with the rules and procedures prescribed by the LDD



Training

The training under volunteer soil doctor programs includes two types of training: (1) Training from the LDD officials to volunteer soil doctors. (2) Training from volunteer soil doctors to other farmers.

The LDD staff will arrange training in a learning-by-doing manner which consists of studying the work in the agricultural area of successful volunteer soil doctors. Volunteer soil doctors will firstly provide the basic knowledge in order to increase efficiency in transferring the knowledge to others. The training is conducted through manuals, leaflets, posters and other suitable presentations. Practical activities usually take place after the theory sessions have been completed. The training topics will depend on the current situation and the needs of farmers.

The training of volunteer soil doctor to other farmers is conducted through learning-by-doing manner and focusing on farmer participation, leading to discussion and brainstorming from farmers in the village, sub-district and district levels, respectively. Volunteer soil doctors will pass on their knowledge on land management by referring to educational documents, posters, or knowledge gained from the LDD and may include a presentation that volunteer soil doctors have prepared themselves. The success factor of the training is the practices or visits to the existing demonstration plots in the volunteer soil doctor's farms.

From before till 2019, the Volunteer Soil Doctors will be able to develop their potential and work efficiency annually through the Volunteer Soil Doctor Network Development Project. This includes trainings to increase knowledge, ability to transfer technology on land development from the LDD to enable volunteer soil doctors to understand and be able to apply the knowledge and technology that has been transferred to manage the land properly. This also allows volunteer soil doctors disseminating knowledge to other farmers and the general public who are interested in further use. In addition, Volunteer soil doctors will participate in study tours from learning centers or areas that have been successful in various fields of agriculture. The topics assigned for volunteer soil doctors' trains depend largely on the problems of the areas and related to a policy of the LDD. The training will be divided according to the 4 level of the volunteer soil doctors as mentioned above. This provides volunteer soil doctors the opportunity to develop, increase their skills, knowledge, and abilities as well as having the opportunity to meet, talk and exchange experiences with other volunteer soil doctors at the same level. This results in the strong connection of volunteer soil doctors at each level. The outcomes obtained from the development of volunteer soil doctors through training are volunteer soil doctor at each level will be developed knowledge, skills and



the ability according to their level, making it possible to apply the knowledge for land improvement to meet the real needs of farmers.

In 2020, the LDD changed the training format from the original 4 levels of trainings to conducting training in an integrated format by giving volunteer soil doctors at all levels the opportunity to receive training and events together, including:

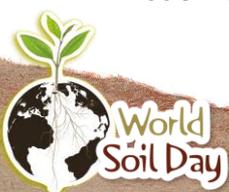
1) Participation in the World Soil Day event on December 5, which the LDD hosts the event every year. There will be activities for volunteer soil doctors to participate, including exhibitions to honor His Majesty the Late King (Rama 9) of Thailand work in land development, exhibition to disseminate knowledge and technology on land development and other related agricultural fields, seminars to discuss and exchange of knowledge and experiences in agriculture, agricultural fair to sell products and agricultural products from agencies, organizations and the general publics.

2) The Volunteer Soil Doctor 4.0 Symposium is a training format with the concept that the Volunteer Soil Doctor has a platform for showing their potential, exchange knowledge, sharing the achievements, opportunity to build network among them at all levels. The sharing information that is exchanged will be summarized and compiled as the success lesson and published on the Volunteer Soil Doctor website at <http://lddmordin.ddd.go.th/index.html>

3) Building a volunteer soil doctor knowledge platform to gather knowledge and technology in land development and other agricultural fields, which can be accessed from the volunteer soil doctor website <http://lddmordin.ddd.go.th/lddmordin02.0.html>

4) The volunteer soil doctor training using knowledge and information from knowledge platform (<http://lddmordin.ddd.go.th/lddmordin02.0.html>), this training develops volunteer soil doctors to gain the strength, knowledge on Academic Farming Capabilities, and gathering knowledge on land development systematically on the Volunteer Soil Doctor website. This knowledge can be searched easily, fast, and easy to understand.

In 2021, the training focuses on volunteer soil doctors who have high abilities and potential in order to upgrade the Land Development Technology Transfer Center to become a training center for volunteer soil doctors. The Volunteer Soil Doctor Training Center must be appointed from the land development station responsible for that area. The land development technology transfer center must be ready in various fields. For example, having a trainer at the training center which is a volunteer soil doctor who is having knowledge and expertise in specific fields, able to support the training of volunteer soil doctors appropriately, having agricultural information, demonstration plots covering content in fields of expertise, etc. The volunteer soil doctors who will be trained will be selected from all levels both locally and outside the area. This is due to develop and encourage volunteer soil doctors to practice and learn specific aspects of knowledge such as learning courses on water system designing, fertilizer system in the orchard



plantation, soil preparation course with organic materials, Biological technology, microorganisms extraction and expansion from natural sources and agricultural machinery usage, etc. Such training courses will help to develop the ability of volunteer soil doctors to apply the knowledge gained for further development. In addition, the Land Development Department in collaboration with Kasetsart University Foundation and Kasetsart University Radio Station have prepared a pilot project for the on-air volunteer soil doctors school as an alternative to training volunteer soil doctors and those interested in the situation with the COVID-19 outbreak.

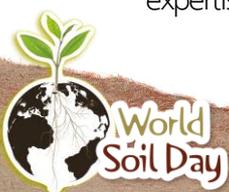
What are the benefit and honor of being a Volunteer Soil Doctor?

After undergoing training and being selected as a volunteer soil doctor, they will be registered as a volunteer soil doctor of the LDD and received a certificate of competence. In addition to basic training, advanced training will be provided to volunteer soil doctors to address specific problems that affect their communities and agricultural land as appropriate. The LDD will organize training courses to enhance the potential of volunteer soil doctors from time to time. In addition, the LDD provides support in terms of substances and budget to facilitate the role and activities of the soil doctor as follows:

1. Free raw materials as agricultural inputs are provided.
2. Compensation for collecting soil and land information.
3. There is no cost for coordinating in the connection between soil doctor network and the LDD.
4. Payment in case of being assigned as a speaker
5. Right to produce soil amendments for soil improvement and soil and water conservation, such as vetiver production and plantation.

The volunteer soil doctors day

The LDD has established volunteer soil doctors for more than two decades with more than 77,000 volunteer soil doctors, and they play an important role in connecting farmers and government agency and supporting the LDD staff in transferring land development technology to farmers. The volunteer soil doctors are present in almost every village across the country. They have a career in agriculture that generates food security in the household and community by using their knowledge and expertise from working with the LDD. This is a success in raising farmers to be the leaders in soil resource



management. Currently, there are many volunteer soil doctors modified themselves from manufacturers to entrepreneur who produces agricultural products according to market demand. Therefore, the LDD creates a guideline to increase the potential of volunteer soil doctors to become professional in production and entrepreneurs regarding the government policy and to accommodate the agricultural sector situation that must be adjusted according to the economic and social conditions.

In order to conduct knowledge transfers that allow volunteer soil doctors to change themselves and be an important component in the sustainable use of agricultural land, including declaring the value of goodness and disseminating the work of the volunteer soil doctor to be widely known, the LDD has established the ‘**Volunteer Soil Doctors Day**’ and celebrated on the 10th of February every year. This day is delivered as significant day between of the LDD staff and the volunteer soil doctors. In 2022, LDD has started organizing the Volunteer Soil Doctor’s Day for the first time with the theme of ‘**10th February, Volunteer Soil Doctors Bring Food Safety**’.



Research and Development on Volunteer Soil Doctor and Farmers Network Administrative Group
Research and Development for Land Management Division Land Development Department

