VIETNAM ORGANIC AGRICULTURE
An overview on current status and some success activities

Ngo Doan Dam
Field Crops Research Institute (FCRI)
Vietnam Academy of Agricultural Sciences (VAAS)

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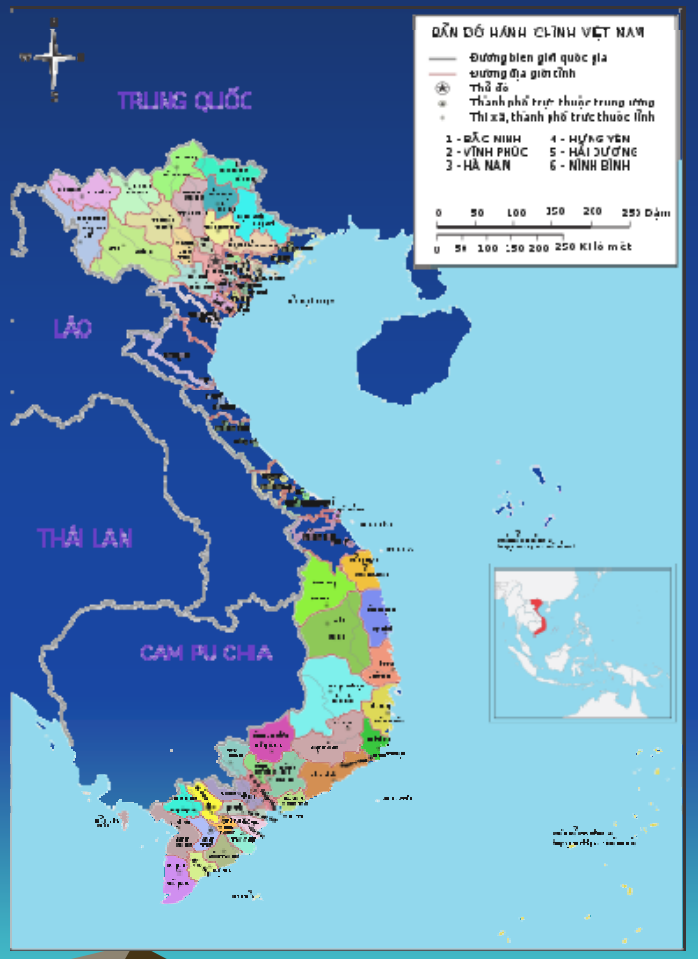
CURRENT STATUS OF ORGANIC PRODUCTION

- ✓ Modern organic agriculture is new to Vietnam. Organic Information: Few and scattered.
- ✓ Certified organic area and value (2010):
- • 21.000 ha (0.2% of the total cropped area) of which 7000 ha was for aquaculture (mainly shrimp).
- • Total export value: 12-14 million US$.
- ✓ Organic commodities: vegetables, tea, shrimp, and small amounts of specialty products, such as herbs, star anise, ginger, spices and essential oils… for export to Europe.



Organic certification and standards

- National standards are being developed.
- Foreign certifiers certify organic products for export (SKAL, ICEA/ACT, IMO, …)
- ADDA-VNFU organic project collaborates with MARD to support development of national organic standards and certification.
- Plan to set up national organic association and to issue organic "market" label. ADDA-VNFU organic project is one main partner to facilitate this plan.

Sales channels

- Quantity of organic products is very few in food supply chain to market.
- Shops, either more specialised "safe" food shops or more general food shops.
- In some main markets there are now also some "safe“ vegetables sellers.
- Hanoi Organics is operating a home delivery system for safe/ organic vegetables based on subscription and advance payments.

Research and Training Activities for organic agriculture production

- Information on organic research results and training curriculum/ program in Vietnamese or in English is very poor and scattered.
- The available research results/ activities mainly focus on new crop varieties and production technology development; producing better quality and safe crop products based on the ICM, good agricultural practices (GAP) principles.
- Organic Prod'n training has not yet paid attention by the colleges/ universities.

MAJOR ORGANIC ACTIVITIES IN VIETNAM

1. **The ADDA-VNFU Project on Organic Farming**
   http://sites.google.com/site/pgsvietnam/

- ✓ Project Duration: 1st Phase: 2006-2010. Extended 2 more yrs: 2011-2012.
- ✓ Aims: Increasing awareness and knowledge on organic agriculture for participated farmers and assisting them to produce organic products (mainly vegetables).
- ✓ Project area: 9 provinces (Lao Cai, Tuyen Quang, Bac Giang, Bac Ninh, Vinh Phuc, Hai Phong, Hanoi, Hoa Binh and Ha Tinh).

MAJOR ORGANIC ACTIVITIES IN VIETNAM

1. The ADDA-VNFU Project on Organic Farming

- ✓ Major Results:155 training courses were organized, 88 farmers grps were established to produce organic products (mainly vegetables and started with rice, orange, litchi, grapefruit, tea, fresh water fish...
- ✓ The successful grps are employing the Project developed participatory guarantee system (PGS) in their organic production (25 farmer grps completed registration (>240 farmers); 5 grps stopped > 20 grps active; 20 grps inspected (18 approved of which 16 vegetables, 1 pomelo & 1 longan; 2 not). 164 farmers certified.

Most successful experience from ADDA_VNFU Project: the Vietnam PGS

It has developed successfully PGS for farmers application. The PGS covers all aspects of prodn chain (input, production, harvesting, processing, transport & storage), focusing on parties who take ownership and/or modify product to the point of sale.

Experience of Tan Duc Group in Phu Tho province for organic vegetable production

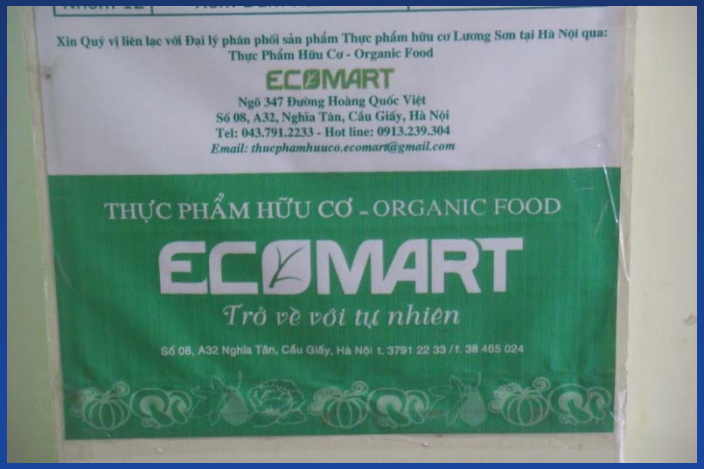
- Starting time: 1/2008
- Group establishment: in 2010
- Zone 1: 68 households
  - Group 1: 35 households
  - Group 2: 33 households
  - Field area: 34.840 m2
- Zone 2: 83 households,
  - 10 groups,
  - 6-10 households/group
  - Area: 42,000 m2
- Zone 3: 47 households
- Area: 20,500 m2

Learning how to make compost from available materials to have enough organic fertilizer for vegetable crops

Main types of vegetables

2. The ECOMART Company for Organic Tea and Vegetable www.ecomart.vn

- Main business is to produce organic tea for exporting to European and US markets.
- Production areas: Lao Cai 300 ha and Ha Giang 500 ha.
- Main prod'n features: to use only the indigenous perennial tea variety *Shan Tuyet* and produced in the registered farms and trained farmers. Farms are applied with only organic compost, no in-organic fertilizer and insecticide application. All the fresh products are bought, processed and quality checked by the Company.
- The strategy for quality assurance is to meet the quality standards set by each market, through strict internal quality assurance and inspection and obtaining certificate from the client - required certifying body.



2. The ECOMART Company for Organic Tea and Vegetable

- Economic benefit from organic tea: exported at 5.5-6.0 US$/kg to the EU and US markets while the normal tea is sold at 2.2-2.5 US$/kg to Egyptian countries. However, share in domestic market is insignificant.
- Organic vegetables: Just started with 20 kinds for some 2000 clients inside Hanoi. Employing PGS for quality assurance.

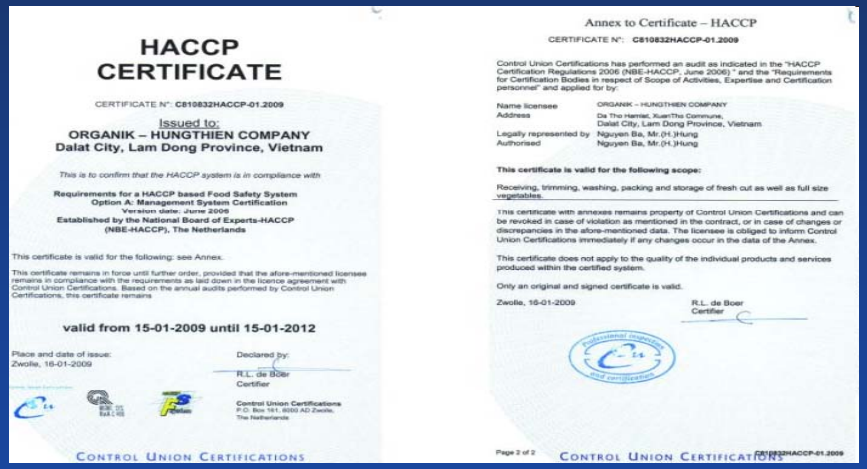
3. Organik Dalat for organic vegetables http://www.organikvn.com

- Started full production in 2006. Total land 20 ha of which 6 is for organic vegetable production (105 kinds).
- Clients: 5-star hotels, Pacific Airline Food Processing, 1000 foreign families working in Vietnam.
- Has modern production and packaging facilities, including greenhouse, facilities for waste treatment, use of clean water to irrigate the crops; using organic compost for production.
- Harmful chemicals and pesticides are not used to control insects and diseases. Careful records are kept of each crop's history in order to guarantee their customers that what they buy is not contaminated.

3. Organik Dalat for organic vegetables

- Employing very well the IPM principles in their vegetable production, such as rotation, use of compost fertilizer and clean water for irrigation, use of flowers to rebel insects approaching to damage the crops.
- Has obtained HACCP Certificate for their organic vegetables since 2009.

3. Organik Dalat for organic vegetables



HACCP CERTIFICATE

CERTIFICATE N°: C810832HACCP-01.2009

Issued to:
ORGANIK – HUNGTHIEN COMPANY
Dalat City, Lam Dong Province, Vietnam

This is to confirm that the HACCP system is in compliance with

Requirements for a HACCP based Food Safety System
Option A: Management System Certification
Version date: June 2009
Established by the National Board of Experts-HACCP
(NBE-HACCP), The Netherlands

This certificate is valid for the following: see Annex.

This certificate remains in force until further order, provided that the afore-mentioned licensee remains in compliance with the requirements as laid down in the licence agreement with Control Union Certifications. Based on the annual audits performed by Control Union Certifications, this certificate remains

valid from 15-01-2009 until 15-01-2012

Place and date of issue:
Zwolle, 16-01-2009

Declared by:
R.L. de Boer
Certifier

Control Union Certifications
P.O. Box 161, 8000 AD Zwolle,
The Netherlands

CONTROL UNION CERTIFICATIONS

Annex to Certificate – HACCP

CERTIFICATE N°: C810832HACCP-01.2009

Control Union Certifications has performed an audit as indicated in the "HACCP Certification Regulations 2006 (NBE-HACCP, June 2006) " and the "Requirements for Certification Bodies in respect of Scope of Activities, Expertise and Certification personnel" and applied for by:

Name licensee: ORGANIK – HUNGTHIEN COMPANY
Address: Da Tho Hamlet, XuanTho Commune, Dalat City, Lam Dong Province, Vietnam
Legally represented by: Nguyen Ba, Mr.(H.)Hung
Authorised: Nguyen Ba, Mr.(H.)Hung

This certificate is valid for the following scope:

Receiving, trimming, washing, packing and storage of fresh cut as well as full size vegetables.

This certificate with annexes remains property of Control Union Certifications and can be revoked in case of violation as mentioned in the contract, or in case of changes or discrepancies in the afore-mentioned data. The licensee is obliged to inform Control Union Certifications immediately if any changes occur in the data of the Annex.

This certificate does not apply to the quality of the individual products and services produced within the certified system.

Only an original and signed certificate is valid.

Zwolle, 16-01-2009

R.L. de Boer
Certifier

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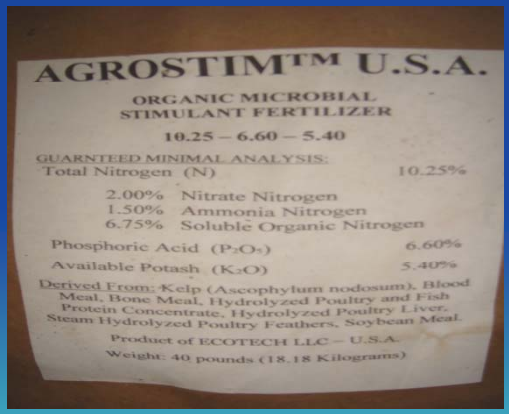
CONTROL UNION CERTIFICATIONS C810832HACCP-01.2009

4. The Vien Phu Green Farm for Organic Rice http://vienphugreenfarm.com

- Though Vietnam is one of the leading rice exporters, the organic rice res. and prod'n is still the infant stage.
- Vien Phu Farm is 320 ha in Ca Mau Province. Commercial organic rice prod'n was started on 70-80 ha in 2011 and expanded to some 200 ha in 2012, using their own rice production protocol, seed, bio-organic rice cultivation protocol and processing line.
- Paddy field is fully fertilized by Agrostim bio-organic fertilizer (accredited by Organic Material Review Institute - USA) without using any chemical fertilizers as well as chemical pesticides, insecticides, herbicides.

4. The Vien Phu Green Farm for Organic Rice

- Paddy farming method combined is supervised and accredited by international certification organization as per EU and USDA Organic Standards.
- Available organic rice products: fragrant white rice, black rice, purple rice, red rice and mixed color rice.
- Has complied with the EU and USDA organic standards for their products but still face a lot of difficulties in expanding production scale due to their lack of agro-technical staff, market demand and quality assurance compliance…

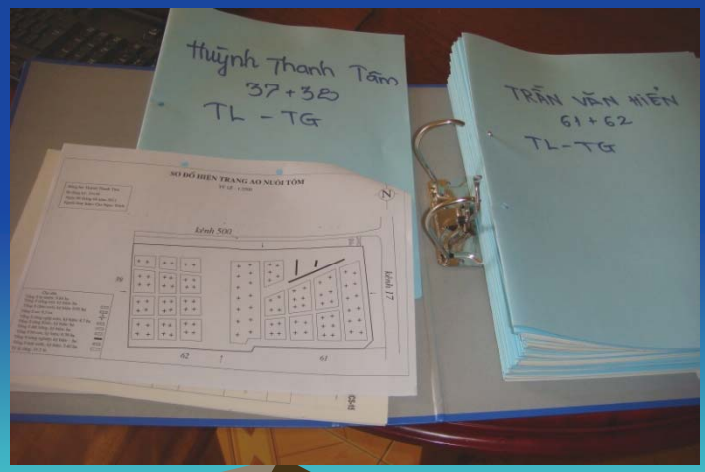


5. The ecological shrimp model in Ca Mau province

- Organic Shrimp Culture was first introduced into Ca Mau province in 1999 and the first farms were certified in 2001 by Naturland.
- The idea for organic shrimp culture came after a Switzerland -supported forest project which promotes to maintain and expand the natural forest in the saline flooded area of the province.

5. The ecological shrimp model

- The first organic shrimp project was implemented during 2003-2006, covering activities from training of farmers, selecting of production farms which must have at least 50% of the water surface covered by saline tolerant mangrove forest.
- Current prod'n scale: 10,500 ha out of 23.151 ha of Ngoc Hien Forest farms. of which 6450 ha with 1238 farmers have been certified as organic shrimp compliance.
- This project helps to increase farmers income at the selling price 20% higher than the normal shrimp while they can still have income from forest activities. Farmers can harvest up to 450 kg of shrimp/ha a year at a selling price of 10-15 US$/kg.



5. The ecological shrimp model

- The model has a good production and quality assurance in organic shrimp culture; including certifying the registered production farm, employ the standard production procedure, internal control system (ICS), quality certified by IMO, Naturland and BIOSUISSE.
- The organic shrimp of this Company is currently exported to Switzerland.

6. National Workshop for Organic Research Development

- Time: A full day on 28 Feb. 2012.
- Host: Vietnam Academy of Agricultural Science (VAAS)
- Participants: 60 (doubled as planned), including policy makers, scientists, education/ training centers, businesses and organizations who are considered as the pioneers in the organic agriculture movement in Vietnam.

6. National Workshop for Organic Research Development

- 15 papers presented, covering topics on the prod'n technologies, marketing, advantages and difficulties for the development of organic agriculture in Vietnam.
- The workshop proceeding in Vietnamese was published and distributed to all the participants.
- The workshop results were also informed through public media.
- A national net-working among the organic members has been formed for information exchange and sharing of experiences.

7. Vietnam Organic Association was founded and its First Congress was held

- On 31st October 2011, the Gov. Of Vietnam decided to establish Vietnam Organic Association (VOA).
- The VOA is specified as a social vocational organization with participation of individuals, organization, enterprises, scientific units, cooperatives, groups who have concerns and hearted enthusiasm to organic agriculture, who directly produce, process, do business, providing services, export and use organic products in many provinces and cities.

7. Vietnam Organic Association was founded and its First Congress was held

- The FCRI project team took part in the progress of preparation and organization of the First VOA Congress.
- On May 22nd 2012, Vietnam Farmer Union (VNFU) led and organized the First VOA Congress in Hanoi with which the VOA was officially launched.
- 158 representatives attended, including scientists, organizations, business, consumers and farmers concerning about organic production.
- The Congress elected the VOA's Executive Committee of 19 members chaired by Vice President of Vietnam Farmer Union.
- President of VAAS and representatives of several VAAS member institutes have joined and taken part in the Congress activities.

7. Vietnam Organic Association was founded and its First Congress was held

- VOA is aimed at mobilizing people with passion and interest to participate for promoting the sustainable development of Vietnam organic agriculture, creating high-quality products, hygiene and food safety, contributing to protect human health, maintaining voice, ecological environmental protection, reduce the harmful effects of global climate change, meet the requirements of international economic integration.

8. Technology transfer to farmers using demonstration farms

- In the 2012, the Project has helped farmers groups in Luong Son District of Hoa Binh province in producing organic vegetables.
- Farmers are trained how to make compost, to use clean organic seed, to control pest and disease by bio-pesticides.
- With these activities, the farmers groups can self-run their business, producing qualified organic vegetable for a number of high demanding customers.

9. Some locally developed organic technologies

9.1. Using Trichoderma to produce compost from rice straw

- Purpose of use: Stimulating the decomposition of fresh rice straw to produce compost.
- Trichoderma can attact Rhizoctonia solani, Fusarium solani, Phytophtora, Sclerotium rolfsii…
- Trichoderma also promotes activities of some enzymes such as cellulase, chitinase, protease, pectinase, amlylase which help the decomposition of cellulose, chitin, lignin, pectin in the plant residues to make nutrition for the followed crops.

9. Some locally developed organic technologies

9.1. Using Trichoderma to produce compost from rice straw

- Using Method: For each tone of fresh rice straw, 0.3 - 0.5 kg of Trichoderma product and 100 ml of Amino Humate or Amino Chelate are diluted in 70 liters of water.

- Spraying the mix on fresh rice straw and cover with plastics. Maintain proper moister. The compost is best for use in 15-20 days.

9. Some locally developed organic technologies

9.2. *Using growing Substrate GT5 to produce young vegetables.*

- The growing organic substrate GT05 is produced by the Soil and Fertiliser Research Institute (SFRI).
- It contains 44% OM; 1.2% N; 0.8% P2O5; 0.7% K2O; and some other macro- and micro-nutrients.
- The product is licensed by the Ministry of Agriculture and Rural Development for commercial application.

9. Some locally developed organic technologies

9.2. *Using growing Substrate GT5 to produce young vegetables for salad.*

- Some 12 kg of GT5 substrate is put into 1m2 tray to make a layer of 3-5 cm for growing 5 beaches of young vegetable. After each harvesting beach, the substrate is re-used for the next seed sowing.
- Using this technique for raising spinach, growers can harvest 1.34 kg of vegetables per m2 in 1 week and 6.7 kg of vegetable 5 harvests.
- The substrate can also be used to produce cut vegetable in home garden with the productivity of 2.16 kg/m2 in 1 week and 10.83 kg/m2 in 4-5 weeks.

9. Some locally developed organic technologies

9.3. ***Research results on developing bio-pesticides to control pest and diseases in crops prod'n.***

- The PPRI has conducted research and developed successfully some bio-pro44ducts: such as MT1, BE, BC SH1, BIOFUN, *Metarhizium anisopliae,* BOURBO 8.3BR and TICTACK 13.2BR to help the production of organic and safe agricultural products. These include:
- The bio-product *MT1* for application into the base of black pepper plants to control nematodes.
- Bio-products *BE* (using *Bacillus vallismortis*) and *BC* (using *Bacillus subtilis)* to control bacterial wilt (*Ralstonia solanacearum)* and yellow wilting (*Fusarium solani)* on tomato and potato.

9. Some locally developed organic technologies

9.3. *Research results on developing bio-pesticides to control pest and diseases in crops productions.*

- *SH1* to control nemathods *Meloidogyne* sp. and some soil-borne diseases caused by *Fusarium, Phytopthora* and *Pythium* on cofee and black peper crops.
- *M.a* (using *Metarhizium anisopliae*) to control rice plant hopper.
- The Institute also produces 3 bio-products SOD, SOY and SOP from Neem plant (*Azadirachta indica var. siamensis*) to control insects in storing rice grains.
- BOURBO 8.3BR and TICTACK 13.2BR to control golden snails in rice production.

9. Some locally developed organic technologies

9.4. *Research on producing organic rice using bio-pesticides and bio-fertilizers*

The FCRI has recently conducted studies on producing organic rice under the Red River Delta conditions. The results indicate that:

- Organic rice can be produced with the application of bio-fertilizers in combination with pig-manure. Rice yield is reduced by 6.4 - 9.0% as compared to the conventional method; however, the rice quality is significantly improved with lower nitrate content and other chemical residues.

9. Some locally developed organic technologies

9.4. *Research on producing organic rice using bio-pesticides and bio-fertilizers*

- The application of bio-pesticides such as Catex 1.8 EC, SUSUPES 1.9 EC, DITACIN 8L, ELCARIN... instead of chemical pesticides in organic rice production can reduce pest and disease damages and improving rice quality (no Fipronil chemical residues are present in rice grain).
- The application of bio-products can also improve soil pH, increase organic matter and plant nutrition.
- One ha of organic rice crop should be applied with a rate of 1 ton of BIOGRO fertiliser + 8 -10 ton of decomposed farm manure; foliage spraying of bio-fertiliser for rice seedling and rice crop at every 15-day intervals can improve rice yield and rice quality.

CONCLUSIONS

1. The organic farming has not yet played an important role in Vietnam agriculture sector.

- As of 2010, the certified organic area was only some 21.000 ha (0.2% of the total cropped area). The total export value was some 12-14 million US$.
- The major organic commodities include vegetables, tea, shrimp though efforts have been expanded to other products such as rice, oranges, litchi, longan, cinnamon, ginger, *bassa* fish…

CONCLUSIONS

2. There is still a lack of specific Government policies to support the development of organic agriculture. There is still little attention on organic farming from research, training and the extension service.

3. However, there have been some good models for organic production in Vietnam:

- The ADDA-VNUF project on organic vegetable for domestic markets;
- ECOMART for organic tea production to export to European countries and US;

CONCLUSIONS

- Organic shrimp in combination with forestation in Ca Mau for exporting to Switzerland;
- ORGANIK Dalat for vegetable production to meet the demand of high demanding markets and customers.
- Initial efforts are also being pursued to produce organic rice in VIENPHU Green Farm for exporting to US market.
- Lately, National Workshop for Organic Agriculture Promotion was held by VAAS; Vietnam Organic Ass'n was founded and its 1st Congress was organized. Organic tech. transfer to farmers has been going on by the FCRI and other institutions.

CONCLUSIONS

4. Quality assurance for organic produces is complied differently from one company to another. The PGS is a good tool to help farmers to produce good organic vegetables for domestic markets.
- The productions of all the export-oriented products follow the quality certification systems of the imported countries.

PROPOSE

- The Korean Gov. to consider for an extension of the ANSOFT in the 2nd phase (ideally 3 years).
- If approved, the 2nd phase of ANSOFT should focus on: reinforcing national and regional organic networking; sharing experiences and good technical practices, and enhance technology transfer activities to farmers

Thank you