

REGIONAL ACADEMIC CONFERENCE ADDRESSING AGROECOLOGY TRANSITION IN THE MEKONG REGION



Dates: 24th & 25th January 2017 **Location:** Yezin Agriculture University, Myanmar





Maejo University "Go-Eco" Strategy

Panel 4: Agroecology at university level, examples of current curriculum/actions)

Assist. Prof. Dr. Surat Nuglor Assistant to the President of Maejo University Chiang Mai, Thailand 25th January 2017



The topics will be presented

1) General information of Maejo University 2) MJU Strategic roadmap 3) Some of MJU's Innovations and Organic Agricultural **Activities**



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I. General information of Maejo University

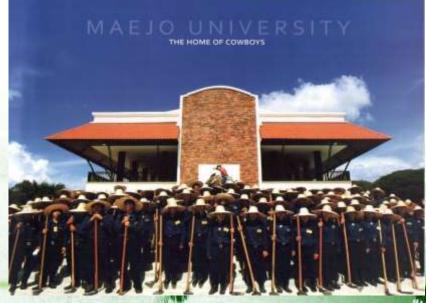
"มหาวิทยาลัยชั้นนำที่มีความเป็นเลิศทางการเกษตรในระดับนานาชาติ'

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- Establishment in 1934
 Oldest degree-granting agricultural institution in Thailand
- Former names:
 - Northern Agricultural Teachers Training School
 - * Chiang Mai Vocational College
 - Maejo Institute of Agricultural Technology
- Maejo University (1996)
 (Ministry of Education)





Location

- Upper Northern Region
- Chiang Mai Province
- Chiang Mai City, Sansai
 District
 - 15 km from the city
 - 30 minutes from ChiangMai International Airport







MJU in Chiang Mai Campus (2,268 Hectares)



Phrae Campus (377 Has.)





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Faculties and Schools (14)

- Total student population: 19,436 (BS/BA=18,335 MS/MA=901 Ph.D.=200)
- Program: 87 (BS/BA=48;
 - MS/MA=27; Ph.D.=12)
- Staff: 1,799 (Academic; 673/
 - Supporting; 1,126)

- 1) Agricultural Production
- 2) Animal Science and Technology
- 3) Fisheries Technology and Aquatic Resources
- 4) Business Administration
- 5) Administrative Studies
- 6) Architecture and Environmental Design
- 7) Economics
- 8) Information and Communication
- 9) Science
- 10) Engineering and Agro-industry
- 11) Liberal Arts
- **12) Tourism Development**
- 13) Renewable Energy
- 14) Graduate School



PHILOSOPHY

MJU's philosophy is to focus on the development of graduates who possess wisdom, persistence, perseverance and moral integrity for the prosperity of Thai people in an agriculture-based society. **VISION**

"To be an internationally recognized leading university in agricultural excellence"

MJU Core values

"MAEJO" represent five principles of MJU's faculties, staff and students.

- $\mathbf{M} = \mathbf{M}$ indfulness
- $\mathbf{A} = \mathbf{Aspiration}$
- $\mathbf{E} = Excellence$
- $\mathbf{J} =$ Justification
- $\mathbf{O} = \mathbf{Originality}$



MJU DNA Identity

As MJU's personnel and students, everyone in MJU is expected to possess the following qualifications:

1. Expertise in agriculture of the upper Northern region and highland farming areas

- 2. Local wisdom
- 3. Agricultural resources
- 4. Identity and individuality of the university
- 5. Expertise of university personnel
- 6. Diverse disciplinary knowledge
- 7. Local agricultural culture of friendliness, trust, and hospitality
- 8. Unity and close-knit alumni networks



MJU: University of Life

MJU is an agriculturally-based higher education institute, MJU aims to be a university that connects with people, communities and countries in everyday life.

The University of Life is MJU's target to serve the global community with the following emphases:

1. Agriculture-Based Development

- Good agricultural practice (GAP)
- Food safety and security
- Sustainable food production
- Organic agriculture
- Accredited livestock production and fisheries
- Standards for agricultural production
- Reduction in production & transaction costs



MJU: University of Life (Cont.)

2. Nature and Environmental Conservation

- Environmentally sustainable agriculture
- Sustainable forest management

3. Tradition and Culture Preservation

- Lanna's Agricultural Culture Learning Center

4. Promotion of Morality and Good Governance

- Discipline
- Morality
- Ethics

5. Technologically Educated and Up-to –Date

- Green and smart technology



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II. MJU Strategic Roadmap

"มหาวิทยาลัยชั้นนำที่มีความเป็นเลิศทางการเกษตรในระดับนานาชาติ"

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Organic University Strategies (2012-2017)

Leading university, especially in organic agriculture, food security and food safety.

In 2017 aims to become an organic university with strategies:

- Having an Organic Agriculture Database
- Development of Organic Agriculture Researchers and Experts
- Creation of Organic Agriculture Curriculums
- Organic Food and Goods on/around Campus
- Production of Graduates Knowledgeable in Organic

Agriculture

- Creation of Organic Agriculture-based Knowledge and Innovation

- Research Center for Organic Agriculture
- Networking & Leading in Organic Agriculture in ASEAN.



Green University Strategies (2018-2023)

For the next five years MJU will further develop into green tech & innovations, green society, balanced development and it become a green university as strategized below:

- Development of Renewable Energy Researchers and Specialists

- Developing & Sharing Knowledge of and Innovation in
- Renewable Energy
- Promotion of Renewable Energy
- Reduction of waste disposal

- Raising Awareness of Environmental Conservation among Staff and Students

- Reduction of Carbon Emission
- Transformation of MJU to a Green University.



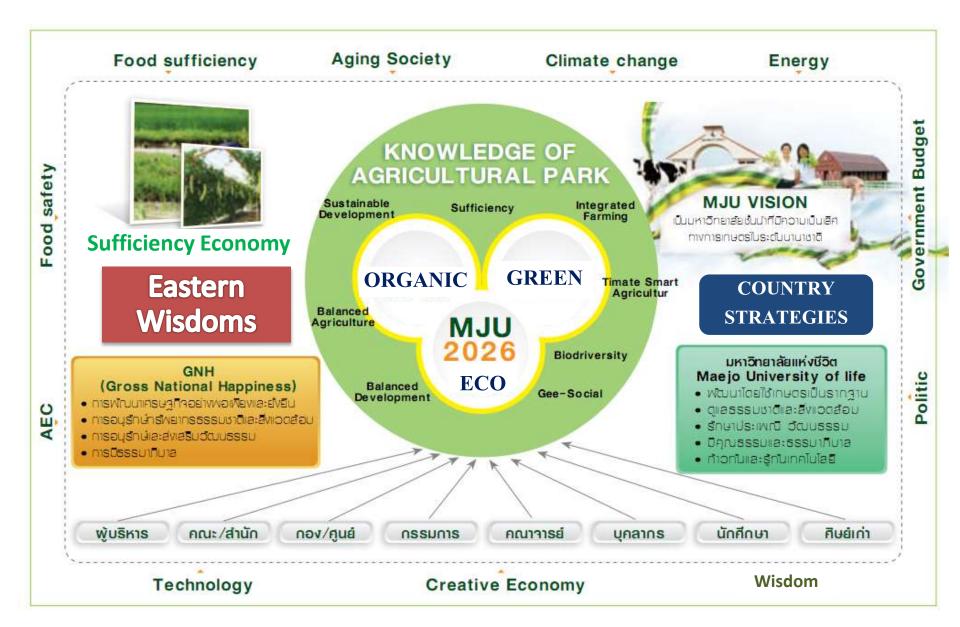
Eco-University Strategies (2024-2029)

By the year 2029, MJU will receive the status of an eco-university concentrated on zero waste & zero carbon, reduce-reuse-recycle and climate smart agriculture with the strategies as follows:

- Application of Sustainable Development in Each Link of Operation

- Introduction of Eco-Zone: Building/Spaces
- Promotion of 3Rs: Reduce/Reuse/Recycle
- Promotion of Renewable Energy
- Sharing Knowledge & Collaboration with the Community
- Fostering Social Conscience and Morality among Staff and Students
 - Discipline, Morality, and Ethics.

MJU 15 Years Roadmap (2012-2026) Conceptual Framework



Development Framework of Maejo University - 15 Year Plan (2012-2026): Maejo University Road Map 2026

An internationally recognized university of agricultural excellence

Maejo University: (Maejo: University of Life) 1) Maintain agriculture as main foundation 2) Conserve nature and environment 3) Nurture excellent culture and tradition 4) Keep pace with changes 5) Uphold good governance

Flagships	Organic University			Green University			Eco University		
	"The university emphasizes the use of organic materials,			"The university develops properly by creating balance with			"The university creates balance of joint existence between man		
	and not the synthetic inputs in the production process,			nature and becoming a Green University must emphasize			and nature with completeness and sustainability by considering		
	promote biodiversity, increase the fertility while decreasing			the preservation of nature and environment, excellent			the real happiness of men, development of minds and building up		
	pollution in the soil, water and air, utilize farm renewable			cultures (Maejo culture, agriculture culture, Lanna culture			of sensible consciousness for its students and personnel."		
	materials and attend to farm products with care."			and Thai culture) and high morality (good governance)".					
Goals	On academics * Academic program offering of organic agriculture * Production of graduates of organic agriculture * Available list of courses on organic agriculture * Every graduate has basic knowledge of organic agriculture	On research and services * Achievements on research and innovation related to organic agriculture * Possession of knowledge from upstream to downstream. * Available university personnel who are experts in organic agriculture in every aspect, from the source of the water to its end	On physical structures and administration *Existence of basic infrastructure intended as learning sites for organic agriculture, e.g. organic canteen, organic farm, organic fertilizer shed, etc., have been constructed. *Consciousness and awareness of students and staff on consumption of safety food	On academics * Academic program offering on alternative energy and environment that is accepted internationally. * Production of graduates with degrees on alternative energy and environment. * Consciousness on energy and environmental conservation	On research and services * Achievements on research and innovation on alternative energy and environmental conservation. * Maejo University serves as a model of Green Community and learning site for other communities.	On physical structures and administration *Available basic infra structures to support Green University, e.g. walkways, bicycle lanes, joint parking lots, green building designs, etc. * Decrease in greenhouse gas in each supply chain of consumption * Use of alternative energy within the university * Reduction in waste to the minimum * Ranking points as a green university attained by the Maejo University	On academics * Academic program offering and list of courses related to ecosystem and agricultural technology that is modern and allied with the environment. * Graduates of Maejo University who have good attitude of loving and being happy with the environment.	On research and services * Achievements on research and agricultural innovation that are allied with the environment and are "climate smart agriculture". * Has the ability to lead the society in issues related to the conservation of the environment and to sustainability.	On physical structures and administration *Available model basic infra- structures, e.g. Eco Building, Smart Farm * There are policies towards physical development to create happiness and contentment among students and personnel. * Available sources of knowledge for learning in each faculty for students' happiness in their university life. * There is rotation in the use of land, water and energy resources (reuse, reduce,
	1. Create a coordinating	contor for organic agriculture		1. Create a Green Liniuer	situ master plan and improv	a the basic infractructure	1. Dromoto the rotationa	I use of resources within th	recycle) with quality and sustainability.
Strategies	 Create a coordinating center for organic agriculture. Produce graduates who possess knowledge of organic agriculture. Develop short-term and long term curricula and training programs including courses on organic agriculture. Develop researchers and experts on organic agriculture. Build and transfer knowledge and innovations on organic agriculture. Create networking and become leaders of organic agriculture at the national and international levels. Establish balance between soil, water and environment in a long term basis. Build consciousness and awareness on the consumption of safety food among students, personnel and the community by constructing a food shop and commercial outlet inside the campus and the surrounding areas. Develop a system to certify the standards for organic agriculture. Improve a model site for organic agriculture in a Lanna way and Organic Smart Farm which consists of a rotation of resources from within the campus. Build up the database and website for organic agriculture. Create and develop the internal and external cooperative networking with outside organizations such as local educational institutions, province, 			 Create a Green University master plan and improve the basic infrastructure, e.g. bicycle lanes, walkways, parking lots and increase green areas. Develop researchers and experts on environment and alternative energy. Improve the university to be safer from liquors, cigarettes, drugs, entertainment areas Reduce amount of waste and non-usable materials within the university. Decrease the use of energy and promote the use of alternative energy. Reduce the number of vehicles and motorcycles but promote the use of bicycles, walking or public transportation. Improve the academic curriculum for teaching and learning of courses on environment. Develop and transfer the knowledge and innovations on environment and alternative energy Build MAEJO University as a Green Society Create consciousness towards environmental conservation among students, staff and communities. Develop the model site, "Green Campus". Reduce greenhouse gas emission in every part of the supply chain. 			 Conduct activities to create better consciousness and happy lifestyle continuously for students and personnel. Build a joint center for separating, sorting, and recycling of waste and garbage. Set up policies and activities to reduce the use of energy within the university. Promote to allow each unit implements the basic 3R to decrease the amount of waste and garbage. Develop the academic curriculum for teaching and learning including the list of courses related to balanced and sustainable existence with nature. Transfer the knowledge and create participation with the communities in environmental conservation. Build and transfer the knowledge and innovations in agriculture that are smart towards climatic changes (Climate Smart Agriculture) Design and construct eco-zones and buildings. Develop the model sites or building for ecosystem (Eco Building / Smart Farm). 		
	ministerial and privat of organic agriculture	e organizations on the nation.	onal strategic movement						

ORGANIC UNIVERSITY STRATEGIES

THINK OF ORGANIC THINK OF MAEJO

<u>Create networking</u> and become leaders of organic agriculture at local and international levels

Develop a system of inspection & certification of organic standards Serve as a center for data, knowledge and <u>source of learning</u> <u>on organic</u> <u>agriculture</u>

Build consciousness towards <u>safety food consumption</u> to the university students and staff and in the neighboring communities

<u>Produce graduates with knowledge</u> of organic agriculture

<u>Create knowledge of organic agriculture innovations from</u> production to consumption

<u>Attain fertility</u> in the soil, water and environment for a long term

<u>Conceive an academic curriculum ,</u> list of courses on organic agriculture

Develop researchers and experts on organic agriculture

Make available an <u>organic canteen and a</u> <u>commercial outlet</u> inside the university and the surrounding areas

Develop an organic agriculture <u>model site</u> <u>in Lanna way of life</u>

Build a database on organic agriculture

Rotate resources within the university

MAEJO UNI	อันดับ ประเทศ ไทย	อันดับ โลก	มหาวิทยาลัย	คะแนน
	<i>, aa</i>	40	จุฬาลงกรณ์มหาวิทยาลัย	6,630
Green มหาวิทยาลั	ยสเขยว	71	มหาวิทยาลัยมหิดล	6,343
World University Ranking C University	n Metric Panking	74	มหาวิทยาลัยมหาสารคาม	6,326
1 allowed at a second	ALC: NO	76	มหาวิทยาลัยเทคโนโลยีสุรนารี	6,310
20	4	79	มหาวิทยาลัยเกษตรศาสตร์	6,293
		80	มหาวิทยาลัยเทคโนโลยีพระจอมเกล้าธนบุรี	6,285
	7	81	มหาวิทยาลัยแม่ฟ้าหลวง	6,281
	8	91	มห <mark>าวิ</mark> ทยาลัยธรรมศาสตร์	6,164
	9	94	มหาวิทยาลัยกรุงเทพ	6,116
	10	116	มหาวิทยาลัยนเรศวร	5,894
	11	147	มหาวิทยาลัยแม่ใจ้	5,518



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III. Some of MJU's Innovations and Organic Agricultural Activities



Aromatic Glutinous Rice

(Back-Crossing from Non-Glutinous to Glutinous, High Yielding, Dwarf, Non-photoperiod Sensitive and High Resistance to Disease and Pests)



Asst. Prof. Dr. Varaporn Sangtong



The Cultivation of Dwarf Longan Trees (Higher Quality, Reduce Cost and Easy to Harvest)



Asst. Prof. Pawin Manochai



Thai Aroma Vegetable Soybean (*Edamame*) Lines (Bigger, Sweeter and High-Yielding)



Asst. Prof. Dr. Ruangchai Juwattanasamran



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Bi-color Sweet Corn Hybrid (High-Yielding, Bigger, Sweeter and High Resistance)



Assoc. Prof. Prawit Puddhanon



Organic Chrysanthemum

(Agri-Tour, High Quality and Good Price)



Mr. Thanawat Rodkhao



Organic Herbal Technology

(For Medicinal purpose, High Quality and Good Price)









Dr. Supak Punya



Hydroponics Agriculture

(20% Water usage, High Growth/Quality and Good Price)



Assoc. Prof. Dr. Arnat Tancho



Japanese Melon /Seedless Watermelon (Use Less Water, Hydroponic, High Quality and Good Price)



Dr. Preeda Nathewet



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Organic Seed Production

(High Organic Seed Quality)



Asst. Prof. Chantana Witcharat

Maejo Organic Seed Production Center











Agroforestry System



Asst. Prof. Dr. Thanakorn Lattirasuvan



Native Orchids Back to the Forest Project

(Projects initiated by former HM the Queen)



Faculty of Agriculture Production, Maejo University



Commercial Mushroom

(Lingzhi Mushroom, For Medicinal Purpose, Best Price)



Mr. Preecha Ratanang



Giant Siamese Catfish

(Mekong Giant Catfish + Pangacius = High Growth Rate and Better Taste)



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(Ô)



Lanchester's Freshwater Shrimp

(High Growth Rate, Easy, Good Price)



Dr. Buncha Thongmee



Black bone/Paduhangdam Chicken

(Elixir, High Productivity, Best Price)











Asst. Prof. Dr. Prapakorn Tarachai

มหาวทยาลยชนนาทมความเป็นเลิศทางการเกษตรในระดับนานาชาติ'



Temporary Immersion Bioreactor (TIB)

(New Method of Plant Tissue Culture, Virus-Free and High Productivity)



Assoc. Prof. Dr. Nopmanee Topoonuanont

"มหาวิทยาลัยชั้นนำที่มีความเป็นเลิศทางการเกษตรในระดับนานาชาติ"



Earthworm Composting of Organic Garbage & Liquid Organic Fertilizer Production

(Largest Factory, Fast Composting and High Quality)



Assoc. Prof. Dr. Arnat Tancho

ยชั้นนำที่มีความเป็นเลิศทางการเกษตรในระดับนานาชาติ'

Maejo Earthworm R&D Center









Composting of Agricultural Waste "MJU Engineer#1 Method" (High Quality and Fast Production Compost without Turning)



Asst. Prof. Teerapong Sawangpanyagura

"มหาวิทยาลัยชั้นนำที่มีความเป็นเลิศทางการเกษตรในระดับนานาชาติ"

Maejo Aerated Compost Fertilizer Demo Center







Greenhouse Solar Dryer

(Energy Saving, Quick Drying and Clean)



Asst. Prof. Dr. Natthawud Dussadee

"มหาวิทยาลัยชั้นนำที่มีความเป็นเลิศทางการเกษตรในระดับนานาชาติ'



Solar Energy for Rice Milling

(Energy saving, Good product quality and Complete System)

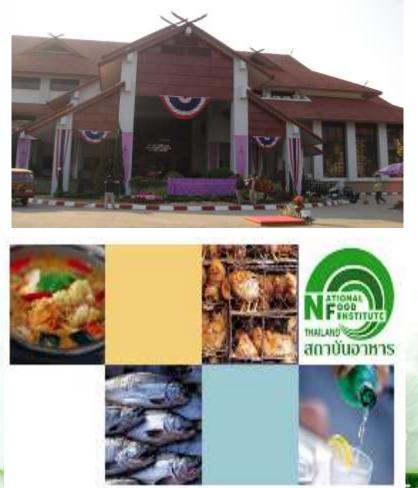


Asst. Prof. Dr. Natthawud Dussadee

"มหาวิทยาลัยชั้นนำที่มีความเป็นเลิศทางการเกษตรในระดับนานาชาติ'



Institute of Certification for Agricultural Products and Standards (ICABs)





กรมวิชาการเกษตร กระทรวงเกษตรและสหกรณ์

ใบรับรองฉบับนี้ให้ไว้เพื่อแสดงว่า

สาราพีชผัก มหาวิทยาลัยแม่ใจ้ 63 หมู่ 4 ด้าบลหนองหาร ขำเภอสันทราย จังหวัดเชียงใหม่

ได้การรับรองมาตรฐานการผลิตพีขอินทรีย์ พ.ศ. 2543 กรมวิชาการเกษตร

รพัสรับรอง TAS : 2798 ขอบข่ายการรับรอง : แหล่งผลิดพืชอินทรีย์ มักสลัด ถั่วแขก มะเขือเทศ พริก ตั้งใช้ บวบเหลี่ยม บวบงู บวบหอม ผักกาดหัว กวางตุ้ง คะน้า ถั่วมีกยาว มะระ มะเขือ แตงกวา แตงไทย แคนตาลูป หญ้าหวาน รวมพื้นที่ 5 ไร่

วันที่รับรอง 26 สิงหาคม 2554

วันที่หมดขาย 25 สิงหาคม 2555

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(บาขอุทัย บพศุณวงศ์)

มู้ข้านวยการดำนักวิจัยและพัฒนาการเกษตรเขตที่ 1 ปฏิบัติราชการแทนอธิบดีกรมวิชาการเกษตร

สำนักวิจัยและพัฒนาการงาทศรเทศที่1 ค.แม่เทียะ ค.เมือง จ.เรียงไหม่ 50000 - โทร 053-114121 E-mail: cardigdouin.th

มายาลขอนน เกมความเบนเลคกางการเกษตรเนระคบนานาอาติ



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Institute of Product Quality and Standardization (IQS)













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Agricultural Standardization



Institute of Product Quality and Standardization (IQS) Assoc. Prof. Danuwat Peng-on

ศทางการเกษตรในระดับนานาชาติ'



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Maejo University Farm





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Lanna Agricultural Learning Center



Organic Training Course





<mark>มหาวิทยาลัยแม่โจ้</mark> MAEJO UNIVERSITY







<mark>มหาวิทยาลัยแม่โจ้</mark> MAEJO UNIVERSITY



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Organic Market





มหาวิทยาลัยแม่โจ้ MaeJo University www.mju.ac.th

Organic books



Organic Network



Northern Bio Control Research Center









Organic Perishable Vegetable Packing House





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Thank you For Your Attention

"มหาวิทยาลัยชั้นนำที่มีความเป็นเลิศทางการเกษตรในระดับนานาชาติ"