



Agricultura
Secretaría de Agricultura y Desarrollo Rural

inifap
Instituto Nacional de Investigaciones
Forestales, Agrícolas y Pecuarias



Cooperation Program on Human Resources Development under the Scope of the Mexico-Japan Strategic Global Association (Nichiboku Program)

Bioenergy and Bioeconomy for Sustainable Development Training Course

**Campo Experimental Rosario Izapa
Centro de Investigación Regional
Pacífico Sur-INIFAP
Tuxtla Chico, Chiapas, México**

Course period: September 1 – September 5, 2025



2025
Año de
**La Mujer
Indígena**

Av. Progreso No. 5, Col. Barrio de Santa Catarina, CP. 04010, Coyoacán, Ciudad de México. Tel: (55) 3871 8700 www.gob.mx/inifap



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Investigadores titulares C
Campo Experimental Rosario Izapa

Introduction

Bioenergy and bioeconomy are rapidly emerging areas that play a crucial role in advancing sustainable development. Bioenergy refers to energy derived from biological materials, such as plants and organic waste, providing a renewable and eco-friendly alternative to fossil fuels. Meanwhile, Bioeconomy transforms biological resources into sustainable products and services, creating a greener and more resilient economy. The development of these areas relies on advancements in research and technology, alongside the implementation of policies that facilitate their widespread adoption. Key areas of focus include the cultivation and management of bioenergy crops, the conversion of biomass into sustainable bioproducts, and the effective control of pests and diseases affecting bioenergy crops.

1. Concept

1.1 Objective/Main Goal

The main objective of the bioenergy and bioeconomy course is to provide participants with the knowledge and practical skills necessary to understand and apply methodologies for the development of new cultivars, effective crop management, pest and disease control, in vitro propagation, and the transformation of inputs and waste into bioproducts of agricultural and industrial relevance.

1.2 Expected results.

Participants will gain a strong foundation in the methodologies utilized for generating renewable energy from biomass, as well as the production of sustainable goods that contribute to development goals.

1.3 Target public

This course is designed for Technicians, researchers, and students who are eager to expand their expertise in bioenergy and bioeconomy.





1.4 Information about the training center

INIFAP is a national research institute in agriculture, livestock, and forestry. It was founded in 1985 with the fusion of INIA (national institute of agricultural research), INIF (national institute of forestry research) and INIP (national institute of livestock research).

The Rosario Izapa Experimental Field, founded in 1945, is one of INIFAP's prominent research centers located in a humid tropical rainforest region. The center focuses on research and technology transfer in key areas, including bioenergy crops (Jatropha and castor oil), oilseeds (soybeans and oil palm), tropical fruit trees (mango, plantain, rambutan, and mangosteen), industrial crops (cacao and coffee), tropical ornamentals, and agroforestry systems. Research support includes a bioenergy laboratory, which analyzes oil quality, produces biodiesel, and transforms lignocellulosic biomass. The center also houses a biotechnology laboratory dedicated to developing protocols for the production and conservation of species such as Jatropha, coffee, and cacao plants, among other species, is also available.

2. Description

2.1 Title

Bioenergy and Bioeconomy for Sustainable Development Training Course

2.2 Course duration in Mexico

September 1 – September 5, 2025

2.3 Target country

Japan

2.4 Limit of participants: Two

2.5. Minimum number of participants: Two





2.6 Contents

PROGRAM

MONDAY, SEPTEMBER 1ST

HOUR	TOPIC	INSTRUCTOR
9:00-10:00 Hrs.	Welcome and visit the Rosario Izapa research station facilities, INIFAP.	Head of the Rosario Izapa Research Station, INIFAP
10:00-11:00 Hrs.	Current situation of the bioenergy in Mexico.	Biaani Beeu Martínez Valencia, PhD. Researcher. INIFAP
11:00-11:15 Hrs.	Break	
11:15-14:00 Hrs.	Genetic diversity and varieties crop selection.	José Luis Solís Bonilla, PhD. Researcher. INIFAP

TUESDAY, SEPTEMBER 2ND

HOUR	TOPIC	INSTRUCTOR
9:00-10:30 Hrs.	<i>Jatropha curcas</i> crop.	José Luis Solís Bonilla PhD. Researcher. INIFAP
10:30-13:00 Hrs.	Field work. <i>Jatropha</i> germoplasm collections and energetic species. <i>Jatropha curcas</i> propagation <i>Jatropha curcas</i> flowers identification <i>Jatropha</i> tree pruning	José Luis Solís Bonilla, PhD., Biaani Beeu Martínez Valencia, PhD. Researchers. INIFAP





WEDNESDAY, SEPTEMBER 3RD

HOUR	TOPIC	INSTRUCTOR
9:00-10:00 Hrs.	Quality of biomass and transformation.	Biaani Beu Martínez Valencia, PhD. Researcher. INIFAP
10:00-13:00 Hrs.	Visit to the bioenergy lab: biodiesel production and bioproducts sustainable.	Biaani Beu Martínez Valencia, PhD., José Luis Solís Bonilla, PhD Researchers. INIFAP

THURSDAY, SEPTEMBER 4TH

HOUR	TOPIC	INSTRUCTOR
9:00-11:00 Hrs.	Pest and Disease in Bioenergy Crops	Guillermo López Guillen, PhD. Researcher. INIFAP
11:00-13:00 Hrs.	Field Work: Disease and Pest Control in Bioenergy Crops	Guillermo López Guillén, PhD. José Luis Solís Bonilla, PhD. Biaani Beu Martínez Valencia, PhD Researchers. INIFAP





FRIDAY, SEPTEMBER 5TH

HOUR	TOPIC	INSTRUCTOR
9:00-11:00 Hrs.	Bioenergetic crops asexual propagation.	Leobardo Iracheta Donjuan, PhD. Researcher. INIFAP
11:00-13:00 Hrs.	Biotechnology lab: bioenergetic crops propagation.	Leobardo Iracheta Donjuan, PhD. Researcher. INIFAP

3. Eligibility and procedures

3.1 Nominee qualifications

Applying organizations are expected to select nominees who meet the following qualifications:

- (a) Current Duties: This program is designed for individuals with experience in bioenergy and bioeconomy production, actively engaged in research or production activities related to bioenergy
- (b) Educational Background: Applicants must hold a degree in Biology, Agronomy, Biotechnology, or a related field.
- (c) Language Proficiency: Applicants should demonstrate a competent command of spoken and written English.
- (d) Technical Requirements (Technology Proficiency): Basic computer skills, including the ability to send and receive emails with attachments and to use a web browser, are required.
- (e) Health: Applicants must be in good health to participate in the program in Mexico. To minimize the risk of complications associated with respiratory tract infections, candidates are required to declare, in the Medical History (Questionnaire on medical status restriction of the application form), any history of the following conditions: Hypertension / Diabetes / Cardiovascular illness / Heart failure / Chronic respiratory illness.
- (f) Gender Equality and Women's Empowerment: Women are highly encouraged to apply. AMEXCID is committed to promoting gender equality and women's empowerment by providing equal opportunities for all applicants, regardless of sexual orientation or gender identity.





4. Required Documents for Application

4.1 Application Form and Annexes

4.2 Photocopy of Passport: Submit the photocopy of your passport along with the application form. If you do not yet possess a passport, you are required to submit the photocopy as soon as it becomes available.

4.3 An official English examination score. (e.g., TOEFL, TOEIC, IELTS)

5. Procedures for Application and Selection

5.1 Submission of the Application Documents

Closing date for applications: Please confirm the local deadline with the MOFA office. (All required material must arrive at AMEXCID in Mexico)

5.2 Selection

Primary screening is conducted at the AMEXCID office after receiving official documents from your government. Final selection will be made by the Mexican institutions in consultation with experts in Mexico.

5.3 Notice of Acceptance

AMEXCID will notify the Embassy of Japan in Mexico the results, no later than August 15th, 2025.

6. Conditions for Participation

The participants of Cooperation Program for the Training of Human Resources, are required:

6.1. To strictly observe the course schedule.

6.2. Not to change the air ticket (and flight class and flight schedule arranged by AMEXCID) and lodging by themselves.

6.3. To understand that leaving Mexico during the course period (to return to home country, etc.) is not allowed.

6.4. Not to bring or invite any family members.

6.5. To carry out such instructions and abide by such conditions as may be stipulated by both the nominating Government and the Mexican Government in respect of the course,

6.6 To observe the rules and regulations of the program implementing partners to provide the program or establishments.





6.7 Not engage in political activities, or any form of employment for profit.

6.8 To discontinue the program, should the participants violate the Mexican laws or AMEXCID's regulations, commit illegal or immoral conduct, get critical illness or severe injury, and be considered unable to continue the course.

6.9 To return the total amount or a part of the expenditure for the Cooperation Program for the Training of Human Resources, depending on the severity of such violation, the participants should violate the laws and ordinances.

6.10 Not to drive a car or motorbike, regardless of an international driving license.

6.11 To observe the rules and regulations at the place of the participants' accommodation.

6.12 To refund allowances or other benefits paid by AMEXCID in the event of a change in schedule.

7. Administrative arrangements

7.1 Organizer

Mexican Agency for International Development Cooperation (AMEXCID)

Receiving institution: Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias (INIFAP)

7.2 Travel to Mexico

7.2.1 Air Ticket

AMEXCID will arrange an economy-class round-trip ticket for an international airport designated by AMEXCID.

7.2.2 Travel Insurance

Coverage is from time of arrival up to departure in Mexico. Thus, traveling time to outside Mexico (including damaged baggage during the arrival flight to Mexico) will not be covered.

7.3 Accommodation in Mexico

Mexican institutions will arrange the accommodation(s) or hotel(s) for the participants in Mexico.

7.4 Expenses

The following expenses in Mexico will be provided by AMEXCID:

1. Daily living expenses, shipping, and medical insurance.
2. Medical care for participants who become ill after arriving in Mexico (the costs related to pre-existing illness, pregnancy, or dental treatment are not included)

The following expenses in Mexico will be provided by Mexican institutions:





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3. Expenses for program implementation, including materials.

8. Important remarks and considerations

Participants must wear comfortable clothing and footwear, suitable for working in laboratories and fields. Refrain from wearing open shoes or clothing that limits your mobility or could be a safety hazard.

In Tuxtla Chico, Chiapas, the climate is warm humid, in the month of August and September the average temperature varies between 21° and 31° C and the rains are abundant starting at 2 p.m.



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