

# Sustainable Agriculture Training Center

Christian Social Service and Development  
Department

Myanmar Baptist Convention

Nyaung Tagar Village ; Hmawbi Township  
Yangon Region : Myanmar

# GOAL

**Poverty alleviation through Sustainable  
Agriculture System**



# OBJECTIVES

- 1. To disseminate skill and knowledge on farming technologies through trainings and in kind assistance.**
- 2. To research, demonstrate and apply the new appropriate farming technology.**
- 3. Food Security & Healthy Environment**
- 4. Self sustainability**

# Background History

- Good technical knowledge are needed to continue experiment and use it
- Farmers cannot catch up the whole new idea with one stop training
- CSSDD staff saving 2 % of salary for 5 years and can buy a land(30 acres) 20 miles away from head office and another 5 years could built 2 story Concrete Building
- Later on HPI, and EED=Bread for the World helping the programs implemented in SATC



# Hilly land





# Two Stories Training Building



## **Training program**

- Basic/Advance Agriculture and Livestock training (10/ 30 days)
- Appropriate Technologies' Training (2 days per each technology)
- Compost making practical training (3 days)
- Aquaponics Training
- Environmental (issue based) awareness training (2-3 days)
- Other trainings

**1. To disseminate skill and knowledge on farming technologies through trainings and in kind assistance.**

## Training Program started since 2006

3 trainings in 2006 for	– 56 farmers
3 trainings in 2007 for	– 64 farmers
5 trainings in 2008 for	– 123 farmers
7 trainings in 2009 for	– 180 farmers
3 trainings in 2010 for	– 73 farmers
3 trainings in 2011 for	– 87 farmers
3 trainings in 2012 for	- 54 farmers
3 trainings in 2013 for	- 68 farmers
7 trainings in 2014 for	- 252 farmers
2 trainings in 2015 for	- 87 trainees
3 trainings in 2016 for	- 80 trainees
3 trainings in 2017 up to now	– 92 trainees

The farmers who are trained in this training centre-1216  
with different kinds of trainings

# Livestock Extension Workers Training (LEW II, 2009)





# LEW III, 2009



# LEW IV, 2009





# LEW V, 2009



# LEW VI, 2010





# Learning by doing

## FAITH Gardening and Bio-Rice Husk Charcoal



# Learning by doing

## SALT Farming, contour marking







Demostration plot for SALT farming



# Appropriate Technologies

## Hydram & Micro Hydro power Training





# Water tank for Hydram



# Hydram training





# Renewable Energy Study tour group at Indegofera plantation site





# Capacity Building for Sustainable Agriculture Training I, 2017





# Capacity Building for Sustainable Agriculture Training II, 2017





# Capacity Building for Sustainable Agriculture Training III, 2017



# Capacity Building for Sustainable Agriculture Practice Training (Time table)

August 22<sup>nd</sup> to September 20<sup>th</sup> , 2017

<b><u>22<sup>nd</sup> August</u></b> Opening Ceremony, Program orientation sharing CSSDD Pretest	<b><u>30<sup>th</sup> August</u></b> Agriculture ecology and Adaptation (Saya Fred)	<b><u>7<sup>th</sup> September</u></b> Crop Science (Pro. Mg Mg Htwe)	<b><u>16<sup>th</sup> September</u></b> Climate Change Adaptation (Abraham)
<b><u>23<sup>th</sup> August</u></b> Livestock Breeding (Dr. Maw Kyu)	<b><u>31<sup>st</sup> August</u></b> Sustainable Agriculture Plant Nutrition (Saya Fred)	<b><u>8<sup>th</sup> September</u></b> Plant Propagation & nursery ( Saw Eh Kwe Htoo )	<b><u>18<sup>th</sup> September</u></b> Water Treatment and Filtration, Land ownership
<b><u>24<sup>th</sup> August</u></b> Livestock Breeding (Dr. Maw Kyu)	<b><u>1<sup>st</sup> September</u></b> Aquaponics (Saw Hei Moo)	<b><u>9<sup>th</sup> September</u></b> Biochar & vinegar production & usage ( Saw Eh Kwe Htoo )	<b><u>19<sup>th</sup> September</u></b> Small scale business management Recap & Post Test
<b><u>25<sup>th</sup> August</u></b> Livestock Breeding (Dr. Maw Kyu)	<b><u>2<sup>nd</sup> September</u></b> Fertilizers Integration (Saw Hei Moo)	<b><u>11<sup>th</sup> September</u></b> Improved On-Farm Practices and sustainable agriculture and permaculture design (Saw Hei Moo)	<b><u>20<sup>th</sup> September</u></b> Action planning, Evaluation, closing CSSDD
<b><u>26<sup>th</sup> August</u></b>	<b><u>4<sup>th</sup> September</u></b> Integrated Soil	<b><u>12<sup>th</sup> September</u></b> Improved On-Farm Practices and sustainable	

Resource Pool for trainings

## **Agriculture**

Prof U Mg Mg Htwe and team

Dr. Fred Thein Pe

Saw Hei Moo

Saw Eh Kwe Htoo

## **Livestock**

Dr. Saw Maw Kyu

Dr. Saw Pleh Saw

Dr. Lydia Soe

## **Appropriate Technology**

U Kyi Mg Aye

Saw Ler Ner

Saw Hei Moo

U Than Khine

## **Environmental**

Saw Abraham Htun

Saw Hei Moo



Date	Practical Topic	Materials need	Time
Aug 22	Vegetables seedlings for FAITH garden	1 drum of Super Bokashi, 1 drum of Rice husk Chacoal, 1 drum of top soil, 5 kind seeds, 10 seed trays	3 hours
Aug 23	prevent soil erosion	4 sets of A frame, 100 Marking sticks, 500 pine apple crowns	3 hrs
	Animals- injections	Prevented medicines, syringes, animals...	3 hrs
Aug 24	Making Rice Husk Charcoal	20 sacks of Rice Husk, 4 sets of stoves, 3 big bamboo, candle, match, some piece of fire wood	3 hrs
Aug 25	Compost Floor	10 sacks saw dust, 10 sacks rice husk, 10 sacks top soil, 1 Kg Salt	3 hrs
Aug 26	Chicken House, ground preparation	Measurement, marking posts; Continue with carpenter's work	3 hrs
Aug 28	Liquid Fertilizers	K <sub>2</sub> SO <sub>4</sub> , Mn <sub>2</sub> SO <sub>4</sub> , B <sub>2</sub> SO <sub>4</sub> , Zn SO <sub>4</sub> , (NH <sub>3</sub> )PO <sub>4</sub> , CaOH, ½ pond each, Mg SO <sub>4</sub> 2 ponds, 7 plastic drums, others	3 hrs
Aug 29	Rich Compost	10 sacks dead leaves, 10 sacks green leaves, 2 sacks animals' manure, 1 viss of chicken/fish inside, tools	3 hrs
Aug 30	Green Manuring	Sun Hemp, plowing machine, grass cutter	3 hrs
Aug 31	Bucket	4 Paint drums, Pine and sockets, 4 growing	3 hrs

**2. To research, demonstrate and  
apply the new appropriate  
farming technology.**

# Fish Bean plants, for pesticide





# Replanting firewood forest with Indegofera





Indigofera can clean thatch weed









# Biomass for compost, green manure, fodder, and fire wood









# Pomelo plantation in Indegofera forest





# Rice field





# SRI after 3 days of transplanting



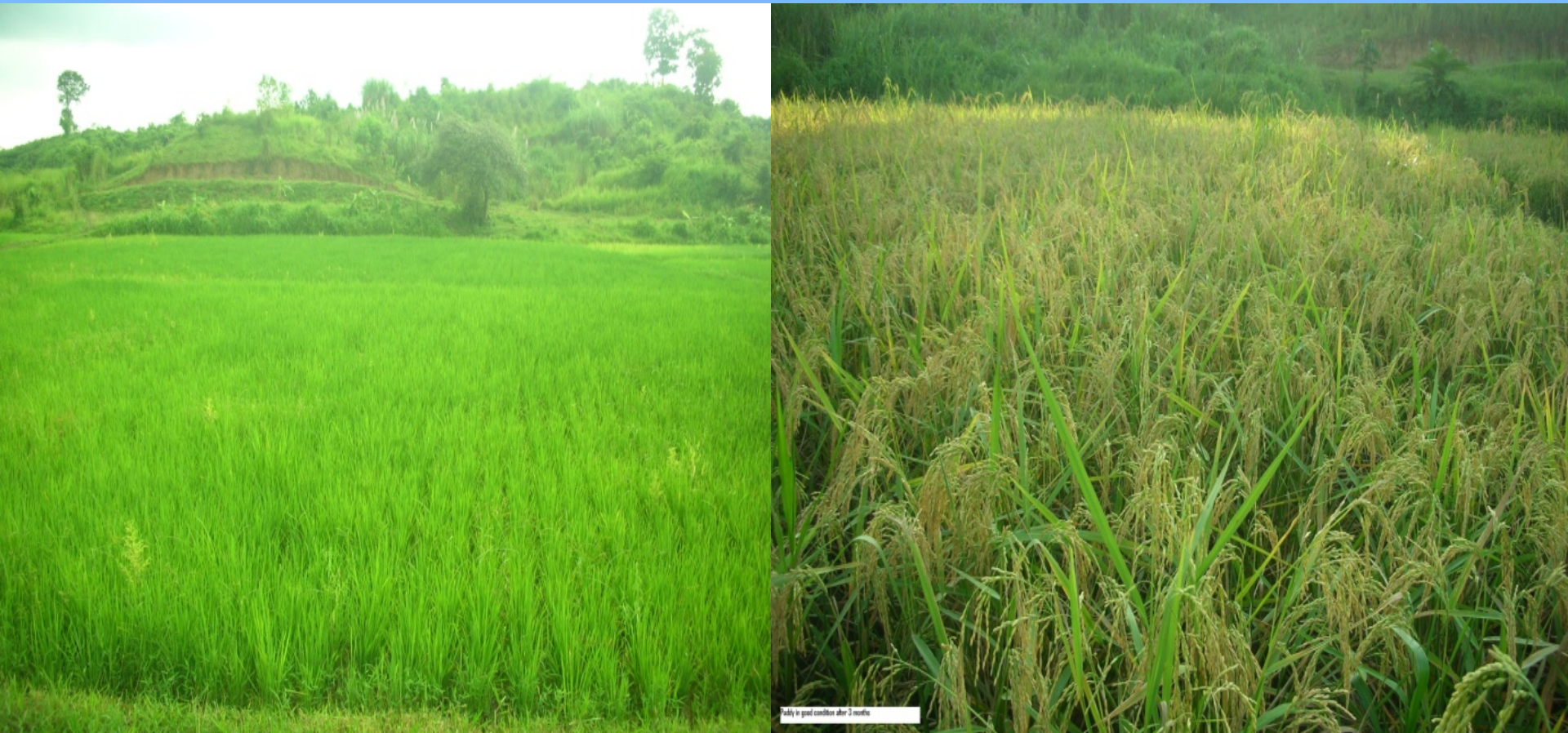


# After one month of transplanting





# Yield Increase to 30 %



# Pig rearing on Compost floor





# pig rearing on Compost Flooring



This compost floor method is started to apply and used in more than 100 small scale family manage pig rearing work both in rural and urban area



# Pig pen, Bio-gas and electricity site





# Bio and Organic Fertilizers Production



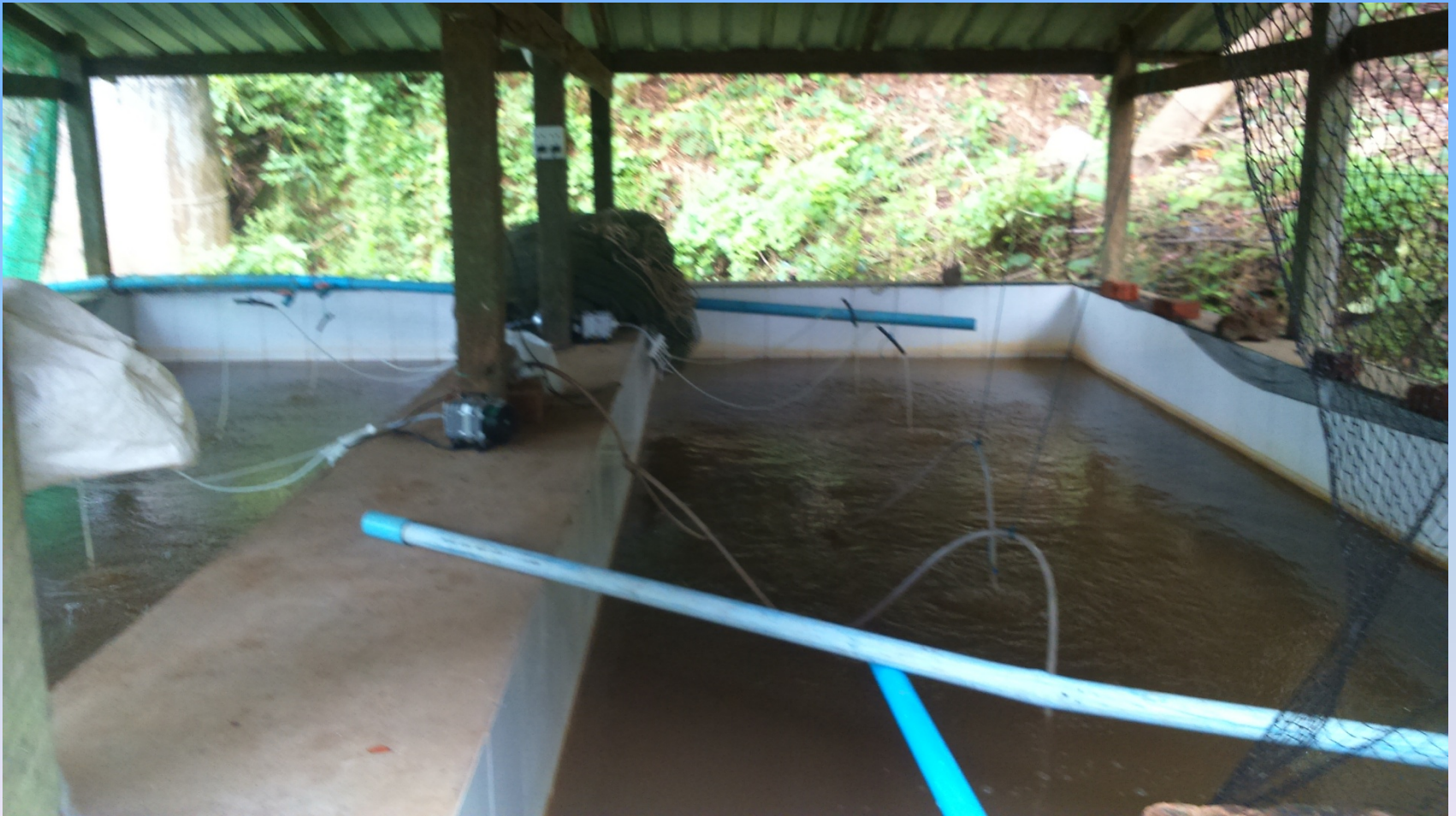


# One family used Biogas unit and trainees from neighbour villages





# Cat fish farming and Nepia Grass growing













# Fish ponds





03/06/2013 13:49



# Goat house surrounded by fodder trees





# Local chicken Farming





# Vermiculture site





# Agro Forestry site





# The first Aquaponics system started in Myanmar









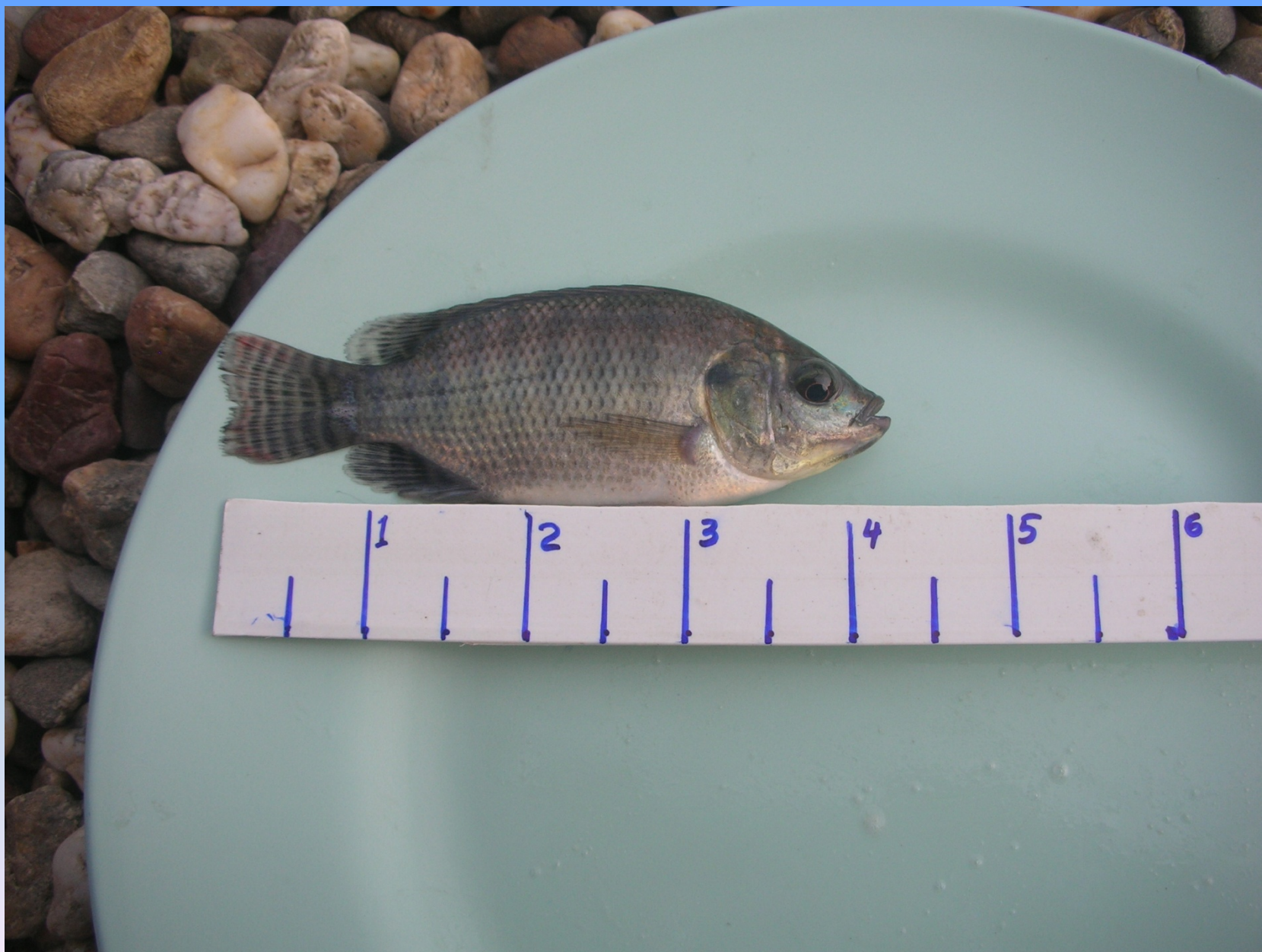
# Visited by friends inside and outside of Myanmar





9 Aquaponics system are installed for  
8 social based community centers and  
one in Yezin Agriculture University





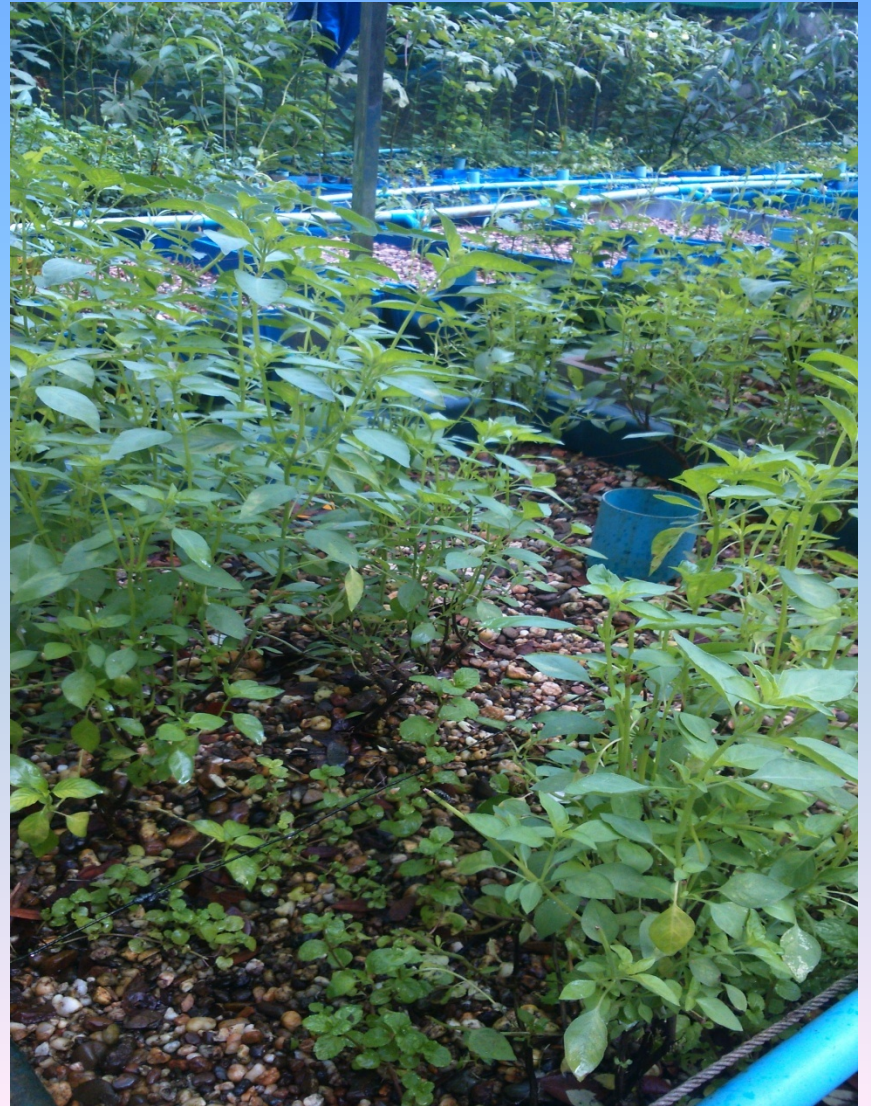


















# Herb



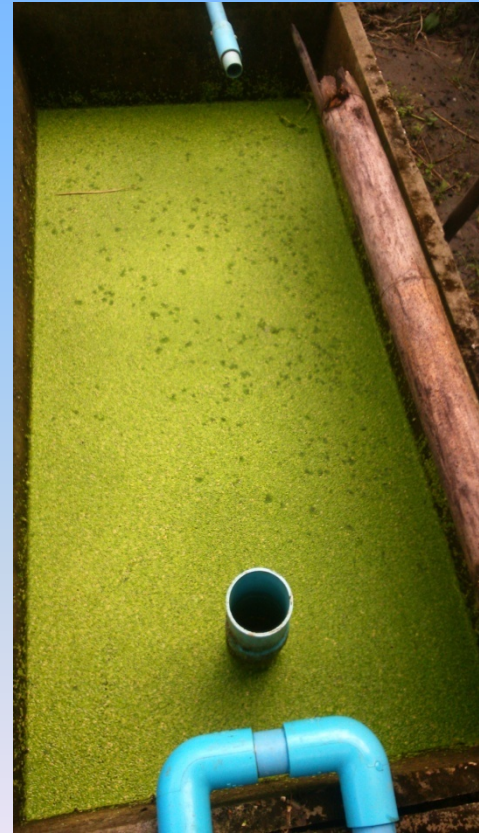


















# Hilly Land leveling for Agriculture purpose





Reconstructed soil with Sun hemp,  
photo before plough under for green manure





# Good biomass for soil reconstruction





# Moringa plantation after 2 weeks of plough under sun hemp for green manure





# Rich compost

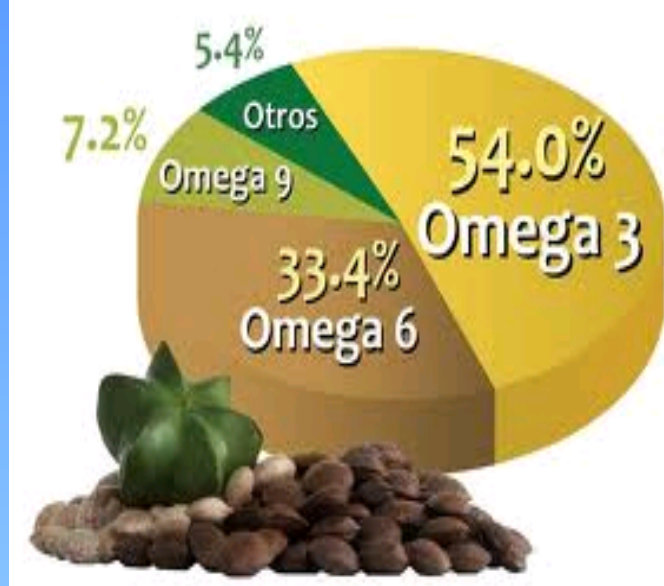




# EM Bokashi production







## "SACHA INCHI"

**Sacha Inchi has Omega 3-6-9. It's a source of Vitamin A, E Protein and other minerals. It vitalizes the immune system, brain system, and bodily system, and revitalizes a person from sickness of various kinds.**









Sacha Inchi plantation is reached to  
200 farmers on trial for future mass  
production



# Making Bamboo charcoal





### 3. Food Security and Healthy Environment



# Replanting trees on hill





# MBC staff planting trees at World Environment Day











03/06/2013 11:55



# After 10 years





No Chemical is applied on Farming



















03/06/2013 13:48





03/06/2013 13:57





03/06/2013 14:15













03/06/2013 13:47







# Rice Husk Stove



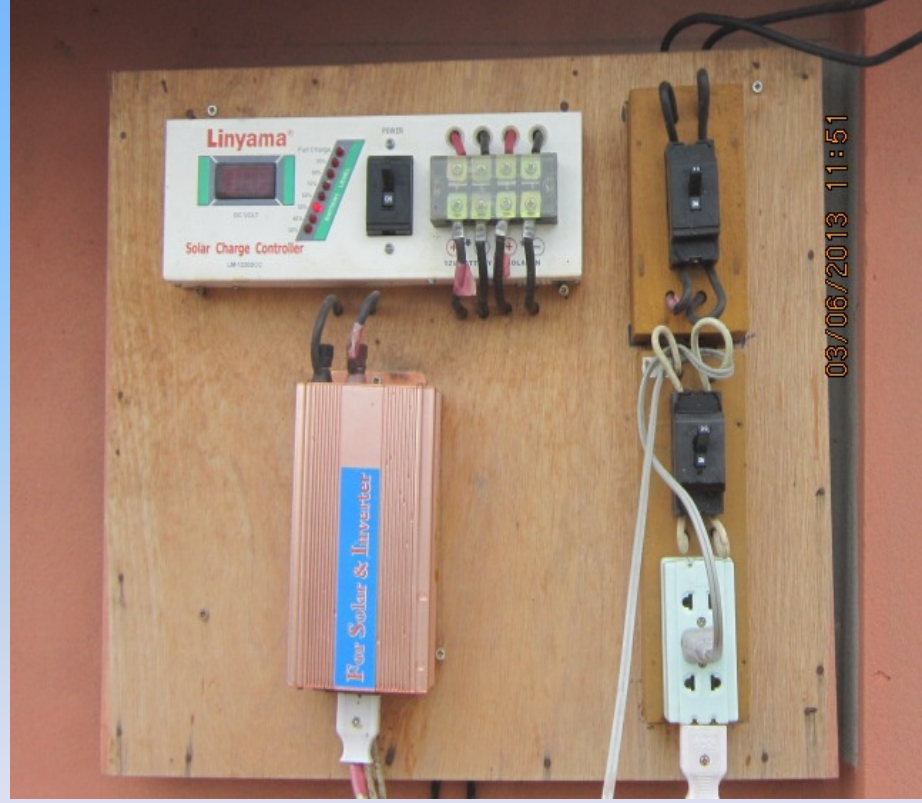






















# 4. Self Sustainability

## Infrastructures

- Road
- Building
- Line Electricity

## Income Generating

- Trees nursery
- Nepia Grass plantation
- Seasonal Green Bean Cultivation
- Moringa Plantation
- Fish Farming
- Pig rearing
- Organic Fertilizers Production
- Trainings



Concrete road is connected to main  
road





# Existing Training Room, *Larger Training room is under construction*





Future dream

# **Sustainable Agriculture Training Institute Hmawbi, Yangon Myanmar**



**Thank You**