THE UNION OF REPUBLIC OF
MYANMAR
MINISTRY OF AGRICULTURE AND
IRRIGATION



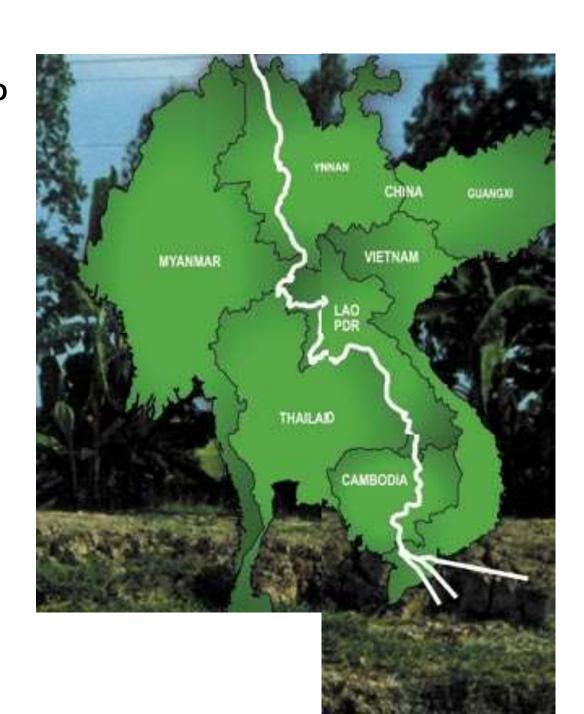
Agro ecology Transition in Myanmar March,7-8 2016

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Deputy Director

Plant Protection Division

Department of Agriculture



Geographic Location

- Myanmar is situated on the Southeast
 Asia and Greater Maekong Sub- region
- The total arable land is 676,577 square kilometer
- Myanmar shares a land boundary of 5,858 km with five neighboring countries
- Bangladesh and India on the northwest
- China on the northeast
- Laos and Thailand on the southeast.



How much we have population?

- 70% of people resides in rural area (41.39 million)
- What is the population growth? (1.1%)
- GDP at constant price(kyats in billion) 6291.14
- GDP at current price(kyats in billion) 9957.06 (2009-10)

51.7 Million

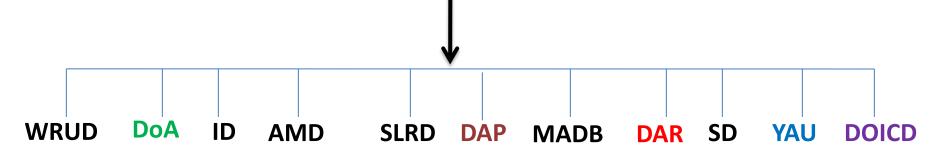


Vision

- New vision for agriculture strives to harness the power of agriculture on food security, political stability, environmental sustainability, and economic opportunity
- Agriculture can better fulfill especially the rural most basic social needs and income security, and thus the rural poverty incidence to halve in 2015. (The majority of the poor live in rural areas, relying on agriculture for their livelihood)

Institutional-setup of the Ministry of Agriculture and Irrigation

Ministry of Agriculture and Irrigation (MoAI)



DAP- Department of Agricultural Planning
DOA-Department of Agriculture
ID-Irrigation Department
AMD-Agricultural Mechanization Development
SLRD-Settlement and Land Records Department
WRUD-Water Resources Utilization Department
MADB-Myanma Agricultural Development Bank

DAR-Department of Agriculture Research

SD-Survey Department

YAU-Yezin Agricultural University

DOICD-Dept. of Industrial Crops Development

JFD-Jute and Fibre Division

CSD-Cotton and Sericulture Division

ScD-Sugarcane Division

PCFD-Perennial Crops and Farms Division

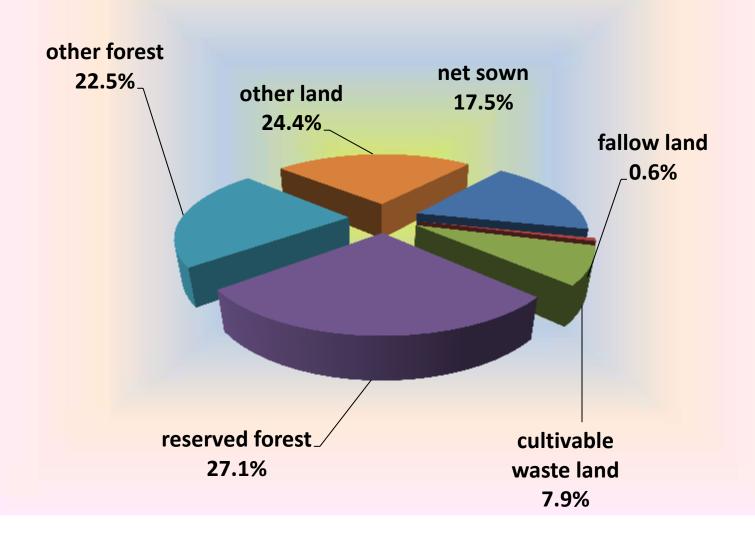
Main objective of Ministry of Agriculture and Irrigation

- Seed Production
- Training & Education
- Research & Development

Main objective of Ministry of Agriculture and Irrigation

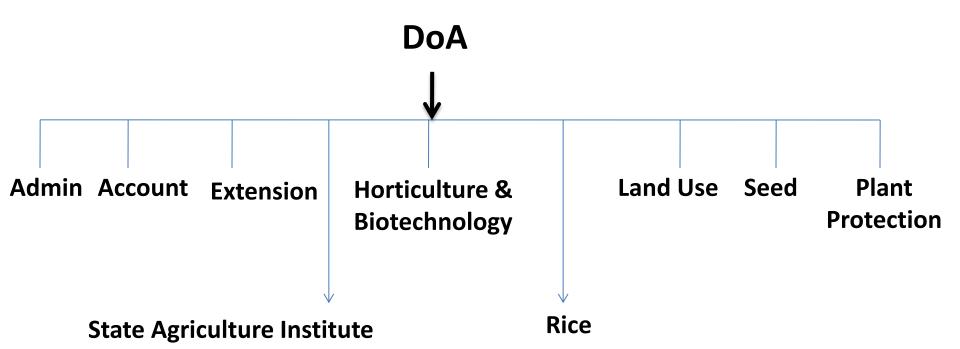
- Increase of safety crop production
- Increase the incomes of farmers through increase of safety crop production
- Become to zero hunger

Land Utilization in 2011-12



Department of Agriculture (DoA)

Nine Divisions under the DoA



Objectives of Agriculture Sector

- Prior to fulfill the needs of local consumption
- Export of more surplus of agricultural products for the increase of foreign exchange earnings
- Assistance to rural development through agricultural development

Agricultural Development and Current Situation in Myanmar



Priority Areas for Myanmar Agriculture Development

- **Quality seed production and distribution**
- Systematic and synchronized application of agrochemical
- **3.** Value-added production in agriculture and increase of agrobased industries
- **Conventional farming to mechanized farming**
- Rain-fed conventional farming to irrigated farming **5.**
- Research and development in agriculture
- **Domestic and foreign investment**
- **Accuracy of agricultural statistics** 8.
- 9. Sustainable market
- 10. agricultural laws and regulations
- 11. information and media



ROLE OF MOAI IN R & D

❖ Function of MOAI

- **Education**
- > Training
- > Research
- > Extension
- > Upgrading curriculum
- > Seed Development Program









LOSSES BY LACK OF POST HARVEST TECHNOLOGY







- Total production of paddy (Mil. MT)
- Total production of Rice (Mil. MT)18
- Total Rice loss (Mil.MT) 1.8
 (10% by lack of post-harvest technology)
- Total production of legumes (Mil. MT) 8.58
- Total legumes loss
 (Mil. MT) 0.6
 (7% by lack of post-harvest technology)



30





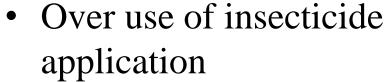
Key Factors for development of Agricultural Productivity

- 1. Creating profitable and sustainable market for farmers
- 2. Utilization of good quality seeds to produce quality products with higher prices
- 3. Encouraging the emergence of private seed producing companies
- 4. Adoption of Good Agricultural Practices
- 5. Application of agricultural inputs such as irrigation water, chemical and natural fertilizers efficiently and timely
- 6. Reduction of transactional costs along the supply chains

Unawareness for GAP



Composting in production site







 Un-precautionary measure of worker health







- Loading in different commodities
- Poor quality
- Poor hygiene



Training Program for GAP

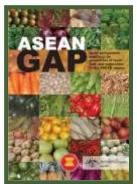
- Zone
- Crop Priority
- Different Audience
 - Staff
 - Farmer
 - Collector
 - Retailer
 - Trader



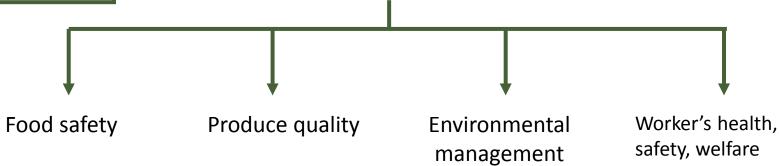
Steps need in GAP

- ➤ Site Management
- ➤ Planting Material
- > Irrigation
- > IPM
- ➤ Organic Farming
- ➤ Harvesting & Handling
- > Sorting
- > Packaging
- > Transporting
- > Personal Hygiene





ASEAN GAP Modules











Food Security and Food Safety

- Food security is essential for increasing population in future
- Food safety for healthy consumption of people
- Good Agriculture Practice (GAP) as well as organic farming especially for fruits and vegetables which are potential for export market
- To upgrade existing pesticide analytical laboratory for food safety
- To enhance the capacity of staffs who are working in this laboratory for SPS measure and quarantine procedure

Nutrition of Food









Food Safety Module







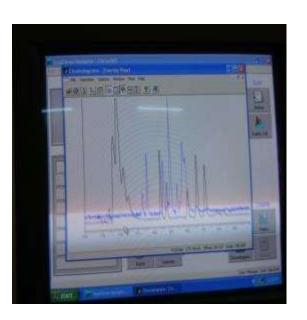




Pesticide Residue Test







Fruit fly Management system for export Mango

Emergence of Adults from Infested fruits





Fruit fly Management system for export Mango

Emerged Fruit Flies Species from Mangoes

Bactrocera dorsalis









Fruit fly Management system for export Mango

Activities in the Laboratory





Produce Quality Module





• Workers' health, Safety and Welfare Module



Good Agriculture Practices in Pre and Post-Harvest Time















Rice processing system in Myanmar



Small ware house and cold storage to be used in field

Whole sale

Market









The scope of Myanmar GAP

the Covers production, harvesting, post harvest handling of fruit and vegetables on farm and also they are handled to sale

တုပ်ပိုးပစ္စည်းများ၊ သယ်ယူပို့ဆောင်ခြင်းများ၊ စိုက်ပြိုးသူကောင်သူ မှားနှင့် လယ်ယာလုပ်သားများအား နေစီကကျ စိမ်နေ့ရှိမှ ဗေးအဧ၁ အန္တရာယ်ကင်းရှင်းဖွေကိုဆောင်မှုက်ရသေါ်ဖြစ်ပါသည်။



ပါတီဝန်ကွက်ထိုထွင်းမှုကိန်းမှုများ ဖြစ်ပေါ်သကဲ့သို့ တာ ကျောနည်းပျက်စီးစေသော စိန်ခေါ်မှတစ်ရပ်ဖြစ်ရာ အနာဂတိ တွက် ရေရှည်တည်တဲ့ခိုင်ခဲ့သော ခိုက်ပြီးရေးစနှစ်တစ်ရပ် ထူတောင်





လုပ်သားများ၏ဘဝ ကျန်းမာသာယာမှ လုပ်ငန်းခွင် အန္တရာထိ ကင်းရှင်းမှသာ အရည်အသွေးမှန်ကန်၍ အန္တရာယ်ကင်းသည့် အစား အစာများ ထွက်လုပ်နိုင်မှုကို ဖြစ်ပါလည်း

- ရမ်သာသမိုင်းကြောင်းနှင့်စိမ်းနှီခဲ့မှ
- အရှငှယ်ပြုအခြေအလြောနေအက်ပြတ်မှ
- ရိုးစေး ပိုးပင်နှင့် စိတ်ပြုံးရန်အသုံးပြုတွင် အဝင်အဓိတ်အဝိင်းမှား
- စိုက်ပိုးထုတ်လုပ်စဉ် ခါကုပစ္စသိုးမွားသုံးရှိမှ

- ရိုက်သိမ်း၊ စူးထွက်ပြီးခေ့သက် ခါကုပစ္စည်းသုံးခွဲခြင်း စိုက်သိမ်းမြင်းနှင့်တပ်ပိုးခြင်းမှတ်တမ်း
- อุดาการีการีชีการารีสุดาสตาสติ ชีเลาะการรูเก็ดสะสีผัดกั
- လုပ်ငန်းတာဝန်ခံ / ဗိတ်ပို့ကယူတစ်ဦး၏ လုပ်ငန်းတာဝန်နှင့်



GAP Application form

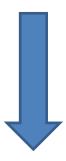
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MYANMAR
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Prepared GAP Certification form

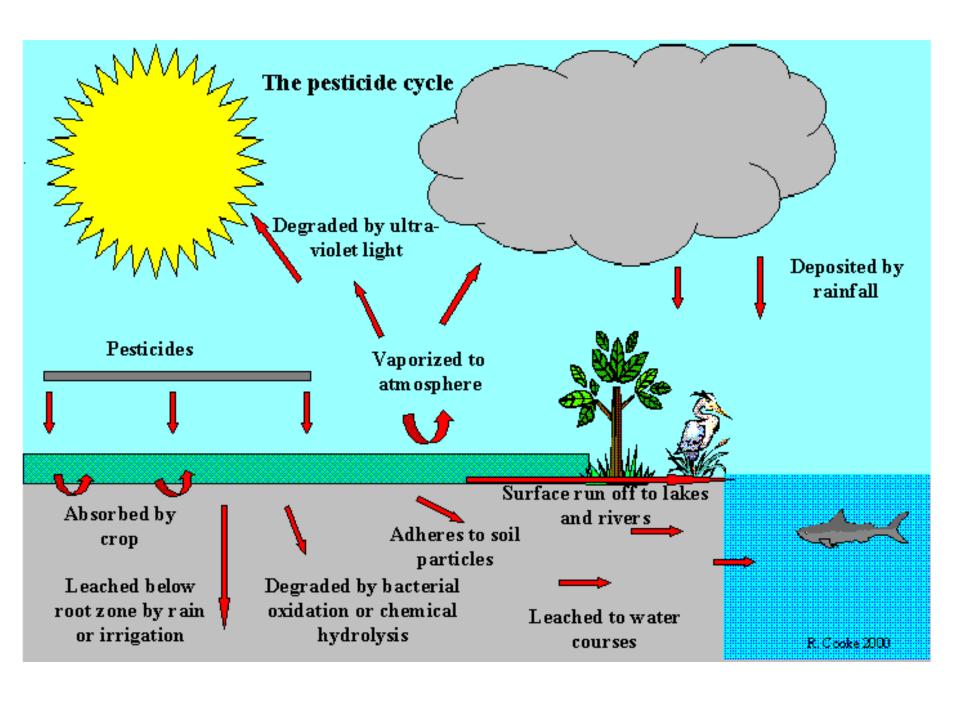


MYANMAR

Environment Management Module



To Reduce the usage of agrochemical



Sanitation







Barrier Plants



Natural Enemies







Natural Enemies





Butter daisy (Melampodium divaricatium)

Okra (Abelmoschus esculentus)



Farmer's Friend/Cobbler's pegs (Bidens pilosa)



Mung bean (Vigna radiata)



Sesame (Sesamum indicum)

Natural emy/wa







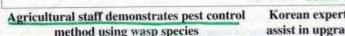




Perform the Pilot release of Trichogramma to the fields



Visibility of training to the farmers



Non-Per Terr, 8 April The Plant Prototol Distance of Department of Agrandony showevered a demonstration on tool ti-plan potestion with the and of trachogogramme species at Kungsuperor faret in Ta-Mor Trwnslep, Vangon Roplum, on 5 April.

4 Thursday, 9 April, 2015.

Ospets Disease Dr. Kyts Kyts Wes explained dar advantages of more the thy trichiquetous visq species we combin pestr at cross and paddy ploutstorn-Agricultural staff demonstated we of the species in fewer of about 200 Social farever and officials of ago

Sports course concludes with skill demonstration of youths

Everyonance, it the yester for their efform. April - The sassour sport tereship: gyrounium in Region, on 3 April.

counc precluded at the pain demonstrated their Kyarkpalinng, Mandalay skills.

4 Wednesday, 18 March, 2015

Groups of heys and

construct 22 Sve-storry Sorball and service sports: buildings in Changestonia Township, Mandaley, In Alargollur, 150 todo-; the 2015-36 foorl year

Week in under may by



New apartments in Chanmyathazi Towns house service personnel



GOBALNEW LIGHT MY LOCAL

Farms to use w species to control

GORNINEW LTCHTOMYANMAR

Mandalay-Myit

care fell by Mr. Perk Yer-

Republic of Kores together

with Disport Goward Man-

ager U. Then Hop of My-

army Bathways, and offe-

sals conducted a survey or

femiliarity railway sec-

ion in Wintho Township.

Korean experts to

railroad

LOCAL NEWS

Municipal 17 Shack ingran District where do Township where the our quinterests of transport **三、海中市** are and Goo village-mats. ply and holds rate service He also visited Myorks. As the moneys, the chief respected by local people.

Farmers in Taungtha Tsp start cultivation of summer paddy and crops

veloposest toda are grav- local people from Northad-

Taurytha Townskip place to pay 1,34% acros of and under summer public. 566 servi under vommer women and tell poor en-

Mandalay Rossor Check

gran in the 2014-15 calm- or the trending, according risker sesera Depending on the rep-

Apeyamidy River in My. Industrial City in Ngume measure statistical that re-

local farmers will grow Palother bytest pickly and

U Phone Muong

dominated 7,567 like of

Department of Agriculture, summer source against the tuene of 566 acres, record The department has log it by most than 1,500 Strammany pathy species. Palative pulch weeks to (Jampha)

to the head of the Tomoship - additional 2,115 mores in



No. Pri Tex. 17 tended-seed Martie-The Crops Prenotice freeds of the Department of Agriculner introduced the sea of Dischapturents maps at allows famous to be loss. paddy farms in Topytams, reliant on chemicals per-Village, Zahathat Tirker, racides in protecting their thin, or in March, with an ecopy address by Linion Mesoner tion C Myon History.

Kraw Was of the Depart

cost of Assertation or

by Agriculture and Impa-the use of Trichegreeness repugn, which attack issues Dissour General U tiggs, around publy plants

Kee Kyn War of the depurposes explained that as

Friday, 27 February, 2015

Agriculturists disclose experiences on use of Trichogramma in cultivation

of crops

Dr Ko Ko of Crops

Protection Branch briefed

the attendees on prevention

of pests at the paddy plan-

tations with the use of best

species of Trichogramma

gathered from Greater Me-

kong Subregion countries.

was held on 25 and 26

Kyin Kyin Win and of-

ficials shared their expe-

riences on prevention of

posts at crops plantations

and replied to queries

Ko Pous

raised by farmers.

The training course

Deputy Director Dr

Nov Pyr Taw, 26 Feb - The Trichogramma-based multi-crop protection course for cultivation of Palethwe summer paddy, jointly organized by Crops Protection Branch of Agriculture Department under the Ministry of Agriculture and Europe Aid Funded Project, kicked off February, attended by 350 in Ohhteintaung Village in Singaing Township, Mandalay Region, on 25 Feb-

Kvin Kvin Win of Agriculuse of Trichogramma in protection of various spectes of errors.

Deputy Director Dr sure Department explained



to produce organic fruits and vegetables, symptoms of pests and infections. The department as-Рузрок signs two agriculturists as-

Hiegu. Kungyangan and open more clinics in Sagaing Kawhmu in Yangoo Region and Koeyus Thabyegen Village in Ottarables Township, Aboulo Village in Pyinmana Township

Region and Most State. and Kyuntetpe Village in Dekkhisahiri Tewaship.

Plans are underway in

Expo set to showcase Vietnamese exports

No Parties, 12 Maris Some 90 Votcomese time will denote their schologies, services and products at a services and ories ego in Yagas from 20 to 24 Mar, with the airs of brooking exposts to fellow ASEAN common the VictNata News Districtported Thursday The HEM City Expo

NIS, orpassed by HCM City livestrams and Trade ture more than 100 trade Department official Offices guarana wasp species to books. The expensió he the control pests at pressions footh trafe and investment and sentence public fields to edibtion organised by DDC in Moreous Ke Post (Older Went) Know Bible Soc

Today's MYASMAR NEWS SITES

Dredging of North Meiltila Lake set to increase water supply

GOBA NEW 19 HIGHYANMAR

LOCAL NEWS



MYANMAR

Shuttarages Village

larch, 2015

arn about use of wasps to

ntrol insect pests

Monday, 9 February, 2015 5

epartment opens 1 Pyinmana Tsp

Ken Win of American stated the use of Yeshe-

more than 300 Groven.



They gave advices to show keepen not to self inapper-

Thibu Ko Ko (Mandelov

Inter-village road under construction in Nyaunglebin Tsp

Nyaungichin Township, gross of road construction Book Region.

Metal Dragon Co LM constructs the next roud linking Zigongyi, Kyachenny and Kyahan villages, funded K13 million by Department of Ru- the road passes will enjoy ral Development at 2014. amount transport. 15 fiscal year.

Head of Bago District

NYACREMENT & Feb ... Department of Rural De-Gravel is being placed on velopment U Army Kyaw two inites and four furlongs. More and Senior Engineer I long inter-village road in. Their Kyaw imported per-

> Head of Department of Rand Development 11 Then Lwin reported on read outstruction progress.

On completion, perple from rural areas where

Under supervision of engineers of Township Development Affairs Committee, workers participate in construction of inter-village gravel road.



Toesday to give service to use of pesticides, best ways the farmers

The department has opened the plant clinics in Pathein. Kyaunggon and it. Ayeyawady Region. Nymanglefrin. plant doctors at the clinics. Tousgoo and Thoyewady from 7 am to 11 am every in Bago Region, Tatkkyi,

Ko Pink (Other Most)

MM national farmers'day/2nd March 2015 in NayPyiTaw



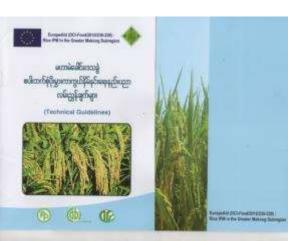




Sharing Knowledge to People













ထရိုင်ဂိုးရေးမာရာကင်မိနေရိုကွဲလို့ မြင်လျှော်များ သည် ပေါင်ငင်းတိုလည်ရှိ ပန်မျှင်လာအပင်များမှ ဝတ်ရည်များကို ဒိုရီနေထိုင်ကြသည်။

မိတ်လွှောက်ပါမှာရှိများ ထင်ရိုးသိမ်းရှိစ်ရန် ဆပ်ခင်း ပတ်လည်တွင် ကြာရည်ပရိုးရှင်သော အပစ်များ စိုက် လည်း



ထန်ငိုင်ရာမာသွက်ပါမျှင့်လည် တစ်ကွင်းတစ်ပေ တည်ရှိသောတောင်သူမှာ မှပေါင်းရှိ ပေါကွင်း ကျယ်ကျည်တွင်လက်မေလျှင်ပို့ရှိ ထားရှိယတ် ရောက်သည်း တောင်သူတစ်ခဲ့တည်း၏ ကွင်းထဲတွင် လွှက်လွန်နေရာရန် တစ်ပြဲကျည်းထဲ၌ ထွက်ပျော်နှင့် သည်









Project partners:

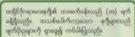
IPP-CAAS, Briging China CABI Switzerland

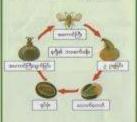
Plant Protection Station, Kingan, George Plant Protection Quarantine Station, Del Visione

Plan Protection Decision, Myournar Plant Protection Centre, Lao PDR Tian Yi biological control eo. LTD, Hengshia, Hebei

International Rice Research Institute

Project funded by EuropeAul





ριτάγελότουν εξεριώς ελάδη αδιτερήθερηθείτ ακέρ χάτδη χάτδιδός εκβρέκτοδηκού ρηκό πάλββλοχό



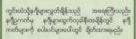




leyni 🛊 🕴 🗸

δροβιστού δροφού βεβδημοτηδιότομος

(၂) ကြိန် ကွတ်ပေးရသည်။ ၍ပင်မျှောင်းသည်။ (၁) ကြိန် လျှတ်နိုင်သည်။





නාගන්ත්වලේ ලියාකාල්ලාවේ අම්නත්අය නිමුත්තුවේ දුනත්ත් සම්පන්තුව ගතුනම් හම්ලානත්තුව අතිඅත්තුව නමාගෙනත් නිමුත්තන්තුව අතිඅත්තුව අමුත්තානත් ලිකළ් දෙදෙන්දෙනතුවෙල් අමුත්තානත්ත්ව නගුම්ගන්ත් යාතුවේ අමුත්ත ව දෙල්ලි ම පතුම්ගන්තු ලෙසේ (අවු ඉහළමුණු පතුන් අද්යුතාත් (a) පාත්තුව අද්යාපාර්ගමීම (coss) මහල්ල මේ (a) පෙතුර සම්ලිම්තුන්තුව අද් පාත්තමීම (a) පුත්තුණු (a) ලිම්තුන්තුව ආත්රයම්මේදිගම්ඇදී (ce) මිතාකතුකුර පොතුරුම



εβνομόνε (ο) υπές ομθέσορτε (ο) στο πορίο σολούτε (πουδιανοήκουρξουρλ απόδεξουρξουρφορήτες υπέργουρλουρ ορφή απόξεπολογουρή βλοδηκοδουρία στο απόξεπολο





Staff awareness







Public Awareness

Constraint to agroecology transition



- √ Needs to encourage of (MoAI)
- ✓ Awareness of any stakeholder

Future Plan of agro ecology transition in Myanmar



New Government is Coming





THANK YOU