

Myanmar Agricultural Extension in Agricultural Development

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Myanma Agricultural Extension Services

- Extension system as an instrument to increase production of raw materials (rice), for the administration of the colonial power.
- In 1876-77, leaders of ACS and Agri. Units were assigned to conduct agricultural extension and experiments on tobacco cultivation.

Initial Establishment of Agricultural Institution

- Department of Land Record and Agriculture (DLRA) in 1888-89, land records was the priority
- The Department of Agriculture (DA) after establishment of DLRA at 15 October 1906
- Distribution of inputs, implementation, standarization of measurements of crop produces



The main functions of DA:

- Conducting experimental plots on local paddy fields and farms,
- Demonstrations of crops and technologies in township, district and state/division,
- Informing public about agricultural activities,
- Distributing seeds.

Establishment of Agricultural College and Institute

- Pyinmana State Agricultural Institute was opened for rural youth in Myanmar language in 1923.
- AC - opened initially under the DA in December 22, 1924.
- to train for agriculture research as well as for the staff of DA.
- teaching and research in related subjects.
- Occasionally, extension types of activities were undertaken

Department of Agricultural Extension in AC

- The experiments primarily conducted were manure and fertilizer trials,
- yield trials of different crops and cultural practices.
- rice seeding rates and transplanting methods,
- *Traditional extension system- the development of agri. commodity production*

After independence year 1948

- For the diversification of crops in development of agricultural sector, Agriculture and Rural Development Corporation (ARDC) in 1952

Functions of ARDC

- Planning to get opportunity of farming without interfere for every farmer
- Stability of agricultural produce
- *Setting a standard measurement for weight, balance and measuring baskets of crops*
- Maintaining qualities and classification of farm produces
- Forming of storage system with license
- Collection and distribution of market price information
- Marketing by co-operative system

Recruitment of staff in the Department of Agriculture

- In 1954-55, graduates from the SAI and AU and training certificate holders - recruited in the DA.
- three divisions: *extension*, marketing and research.
- According to the FAO study, office routine and preparation for extension work took the largest amount of time (30%)
- Farm & Home visits as well as group activities were commonly conducted by VEWs (Chang 1963).

The Extension services

- Since 1950, both DA and ARDC - the transfer of technology (TOT) model or traditional trickle down approach
- Regulatory works besides extension- multiplication, distribution and supply various inputs- *service concept extension*

Socialist era 1972 to 1988

- In 15 March 1972, the DA and ARDC were merged into the new organization, Agriculture Corporation (AC) under MOAF.
- 7 divisions, namely, agricultural research, land use bureau, *agricultural extension*, applied research (or) seed, planning, procurement and distribution, administration and account division .

The functions of Extension Division

- to advocate improved methods of cultivation, disease and pest control,
- *encourage expansion of cropping areas, and*
- *to increase production of industrial crops for import substitution and for export.*



Duties of the Extension Division :

- *Implementation of the annual agricultural plan;*
- Distribution of essential supplies and inputs to the farmers in co-ordination with other departments and corporations;
- Distribution of pure seeds in co-ordination with the Research Division;
- Extension education to farmers through various means;
- *Co-ordination of agricultural activities with Peoples' Councils at various levels.*

- A Village Extension Manager had to take charge of a village - tract or villages with (1200-2400 ha) of croplands depending upon the locality and state of communication.

Trial of new extension approaches

➤ During 1960s “Green Revolution” campaign

(1) The Training and Visit (T&V) Extension System

- As a pilot programme in the World Bank assisted land reclamation project, in four townships of the Ayeyarwaddy Division and three townships of the Yangon Division.
- High demand of SMS, strict schedule, high cost of tech. transfer
- T & V system was not extended and stopped after the completion of the World Bank assisted projects.

(2) FSR/E and Participatory extension approach were introduced with the assistances of International Organizations from 1970 to 1990

Special High Yielding Programs/ Selected concentrated Strategy

- The appropriate extension methodology ie., Special High Yielding Program (SHY) program or Whole Township Rice Production Program (WTRPP) in 1975 to WTCPP.
 - Proven new technology; (10 impact points of rice technology)
 - Government support and leadership;
 - Selectivity and Concentration; area, locality, variety, management, One VEM must supervise only (800 ha) (300 farm families).
 - Mass participation, (party and council men)
 - Demonstration and competition.
- Terminated in 1988 with the political changes.
- The extension system under socialist government was the *combination of T&V system and SHY program* (Mya Maung 2007).

Economic transitional period after 1988

- In 1989 to 1992, AC renamed as MAS
- MOAF  MOAI & MOF in 1992

Policy and objectives of MOAI

- To allow freedom of choice in agri. Production,
- To expand agri. land and to safeguard the right to farmers,
- To permit commercial production of industrial crops and perennial crops,
- To encourage the participation of private sector in the distribution of farm machineries and other inputs

- In 1994, MAS ➡ MCSE(cotton), MSE (sugarcane), MJI(jute), MPCE(rubber) (State-owned economic enterprises)



Summer rice production program

- The extension activities was similar to the WTRPP programs. within ten years from 1992-93 to 2009-10 (MOAI 1999; AED 2010).
- Under availability of irrigation water, timely finishing land preparation and distribution of adequate rice seed in time.
- Commodities prices started to rise sharply and agri. growth increased from 1990, but slowed down in 1996-97



- *Significant increases in yields- 2 to 3 times*
- According to **the economic policy**,
- Procurement system at below market prices- heavy burden for farmers,
- Planned cropping system- drawn up for national requirement by top management without participation of producers and need assessment
- State ownership of farm lands- private tenancy was illegal, land could not be sold or bought, discouraged for improving land and expanding cultivated areas
- abolished in 2003-04

Components of extension system

(a) Special crop production zone

- special crop production zone were practiced for crops like rice, groundnut, sesame, sunflower, black gram, green gram, pigeon pea and other crops.

(b) Block-wise crop production program

- It is practiced at both entrances of each town for rice and other crops according to the localities,
- usages of foundation seeds, certified seeds and appropriate agro-techniques were applied.

(c) Participatory technology development approach

- It is to select the pilot project area with 20- 30 contact farmers at every village tract level in the township. The extension agents and participating farmers formulate the appropriate practices and crops

(d) Farmer's Field School Model

- **Late economic transition period**

- In 2006, SEEs combined into Myanmar Industrial Crops Development Enterprise (MICDE)
- *Extension system were the same*
- Following the policy change in 1988, succeeding change in 2011 adopted more market-oriented agri. policy- contributed success of the national agri. production programs
- In 2012 MAS & MICDE (economic institutions) were reformed to DOA & DICD (departmental Institutions)
- DICD was combined again with DOA in 2016

During 2011-2015, one of the missions of the MOAI was adoption of good agricultural practices (GAP) and hybrid rice varieties,

Palathawe

Large scale demonstration trials on rice

Overview on agri. development and extension (2002-03)

- Around 100 kyats (0.1 US\$) for one acre of cultivated area for extension education. The percent of extension budget to total budget was around 6% (2002-2003) ,and MAS (29.5%)
- Ratio of Extension staff to farm family = 1:500 or 733 ha
- Generally, 0.9 percent of their Agri. Gross Domestic Product (AGDP) is allocated to agricultural extension.

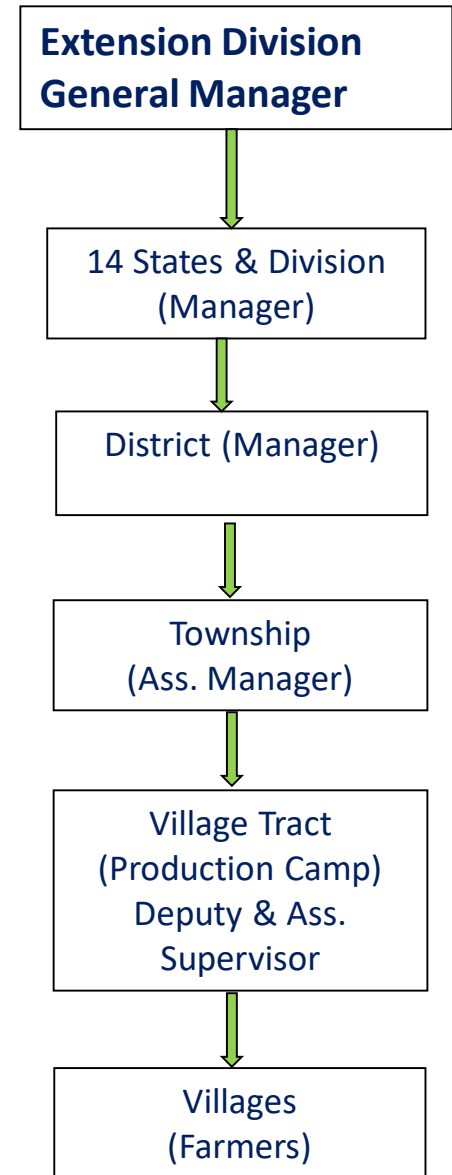
- Myanmar Government used 8.02% and 0.14% of AGDP for agriculture total expenditure and extension budget respectively in 1991(Jalil, 1994).
- The Bachelor holders also increased from 13.23% to 27% in 2010.
- AED has consecutively applied a series of extension approaches;
- Not stick to the conservative idea
- Agricultural policy changed to more environment conscious directions in Sep. 2015, dev. of climate smart agri.,
- Time for improving, expanding of the roles, capacities and status of the government agri.
- Extension services to be a provider of sustainable agro-ecological environment



Thank You

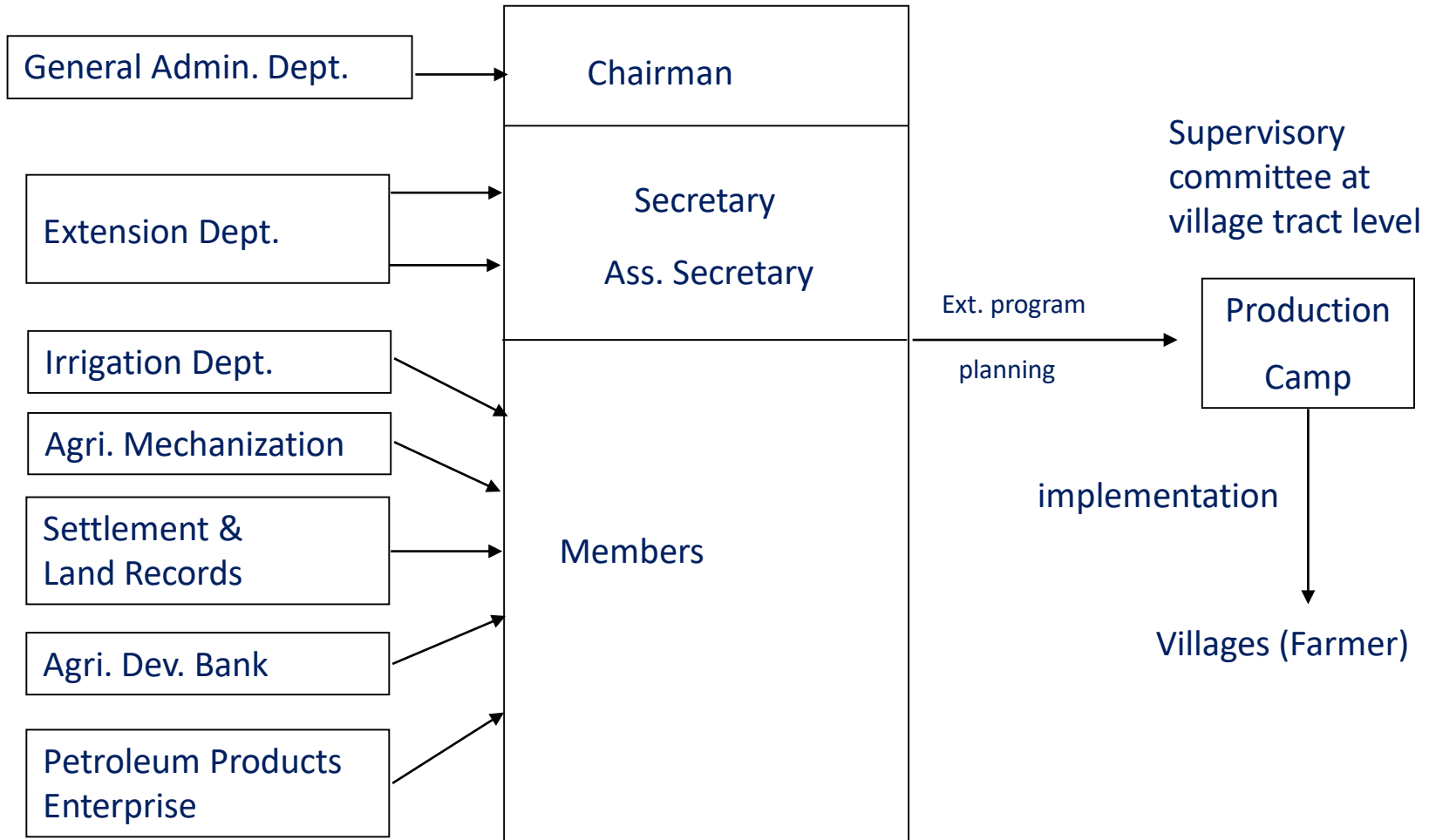
Agricultural Extension management

- Structure of the extension service – formed as administrative format
- National, State & Divisional levels – responsibilities on formulation of extension planning, training monitoring & evaluation
- District, Township & Village Tract levels – engaged with more on implementation of extension programs & projects



Crop Production Supervisory Committee

Township Level



Production/ education camps

- established throughout the country
- selection based on extensive major crops areas and
- accessibility to farmers and extension agents.
- The extension activities conducted in production camps are as follow: Demonstration trails, simple experiments, training and field days , with farmers' participation
- Annual cropping plans can be laid down for village level.
- The aims of demonstration trials are to invite the in agricultural program development and educate the nearby farmers.
- Large scale demonstration trials on the farmers' fields for varietal and agronomic trials

In 1989, AC was renamed; MOAF- MOAI & MOF in 1992

Brief Description of Extension Management System

- Extension Agent and Township Extension Agent) have to meet each other every 15 days at the township agricultural education camps.
- They discuss their performance of extension activities, the collected farmers' agricultural problems and recommended solutions to these problems.
- The township extension agents have to report monthly all agricultural information collected from their townships to the respective district managers.
- the district managers have to report the information to the respective state or divisional managers.
- The state/divisional managers, deputy state and divisional managers and district managers have to attend the monthly meeting at headquarter of the AED and report the respective state and

divisional information to the General Manager of the AED. The meeting evaluates the implemented agricultural extension programs and makes the planning and decision for the new extension programs (MOAI 1999).

- Training conducted by NGOs
- UNDP, FAO, GRET and CARE Myanmar also conducted agriculture and forestry related trainings particularly emphasis on the grass root level. Trainings are mostly based on the participatory approach and
- subjects included are data collection, program planning, project implementation, monitoring and evaluation, project evaluation, project circle management (PCM) method and SWORT analysis method etc.

- Department of Agricultural Research (DAR), Yezin, Pyinmana;
- Central Agricultural Research and Training Centre (CARTC), Hlegu, YGN Division;
- Vegetables and fruits Research and Development Center (VFRDC), Hlegu, YGN Division;
- Central Settlement and Land Record Development Centre, Taik-kyi, YGN Division;
- Irrigation Training Centre (ITC), Bago;
- Applied Research Centre of Perennial Crops (ARCPC), Mudon, Mon State;
- Farm Machinery Training Centre (FMTC), Meik-hti-lar, Mandalay Division;
- Myanmar Cannan Farmer's Training Centre (MCFTC), Pyin-Oo-Lwin; and
- Myanmar OISCA Farmer's Training School, Yasagyo, Magway Division.

1. Weaknesses of Research and Extension Linkage

Suggestions for strong linkage

- The extension divisions of MAS and MICDE and Department of Agriculture Research should have close contacts freely with international agricultural research institutions for technical market access.
- Effective mechanisms should be established to facilitate closer collaboration between agricultural research and extension.
- Research and extension personnel should participate in more field trials and demonstrations.

2 (a) Weakness in Government Agricultural Policy

2 (b) Inappropriate Government Pricing and Marketing Policy

Suggestions for improvement

- Government should not set or control the price of agricultural commodities, but should introduce proper and appropriate regulatory system. For pricing policy, it is important to consider world market price: should compare domestic price to world market price for important crops to indicate whether the given price is a reasonable incentive for a farmer to produce a given crop.
- Government should not intervene market mechanism.
- The existing agricultural land policy should be reviewed and make some necessary amendments or adjustments in line with market economic system.