The Republic of the Union of Myanmar
Ministry of Agriculture, Livestock and Irrigation
Department of Agriculture

DEVELOPMENT OF SMART AGRICULTURE UNDER DIVERSE AGROECOSYSTEMS IN MYANMAR

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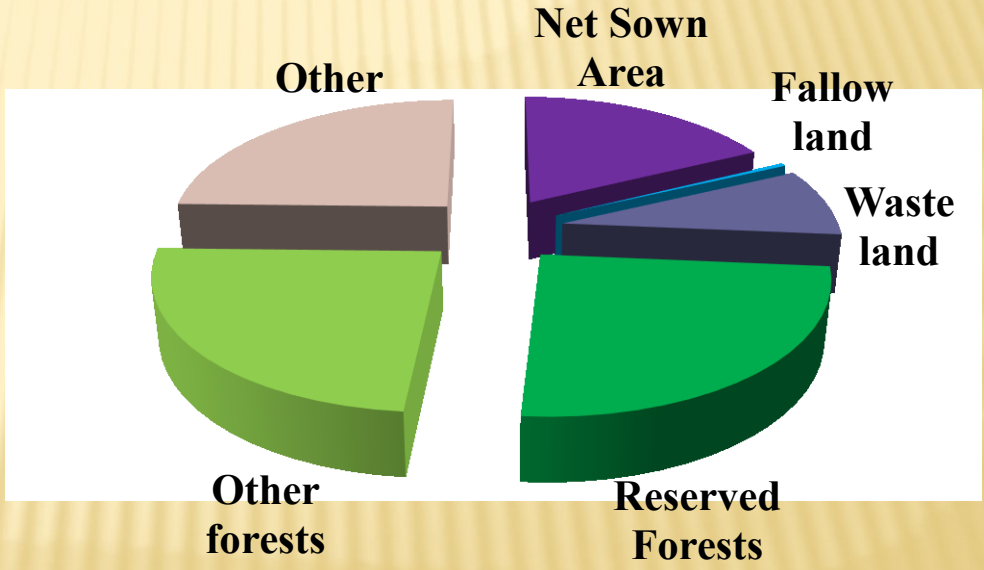
Introduction

Categories	*Million Ha*
Net Sown Area	12.06
Fallow land	0.46
Cultivable Waste land	5.54
Reserved Forests	18.88
Other forests	14.51
Other	16.21
Total	67.66

LAND UTILIZATION



Source: ***Myanmar Agriculture in Brief (2018)***

Role of Agriculture in Myanmar

Agriculture including livestock and fishery

- Contribute 25.6% of GDP
- Contribute 24.4% of total export earnings in 2017-18
- Employ 61,2% of the labour force.

Vision and Mission of MOALI

Vision: An inclusive, competitive, food and nutrition secured and sustainable agricultural system contributing to the socio-economic well-being of farmers and rural people and further development of national economy

Mission: To enable rural population and agribusiness enterprises earning profit from production and trade of diverse, safe and nutritious foods and agricultural products using innovative and sustainable production, processing, packaging, logistics and marketing technologies to meet the growing domestic and global demands.

Main Functions of Department of Agriculture

- Production of good quality seed for main crops cultivated for economic development of farmers and conducting trainings for farmers to produce good quality seed.
- Organize training on advanced agricultural technologies and cultural practices to facilitate application and innovation of these techniques by farmers.
- Conduct research on scientific cultural practices to produce and develop good quality and high yielding varieties.
- Conduct training, field days and demonstration of model farms for systematic application of GAP methods in production.
- Carry out continuous research activities to develop GAP compatible with various ecological conditions to produce adapted varieties and good quality seed.

Major Crops Production

- Paddy
- Maize
- Groundnut
- Sesame
- Sunflower
- Black gram
- Green gram
- Pigeon pea
- Cotton
- Sugarcane

Good Quality Seed Production

Availability

- Govt. Farms (DoA, DAR)
- Private Companies
- Seed Growers' Associations
- Farmers save seed

Accessibility

- Information sharing
- Village Seed Bank
- Seed Networking

Knowledge Sharing & Capacity Building

Good Agriculture Practice (GAP)

- Guidelines
- Inspections
- Certification
- Feedback mechanism

Extension & Education

- Knowledge Center
- Advanced technologies for large farmers
- Appropriate technologies for smallholder farmers
- IHTDV – Integrated High Technology Demonstration Village
- ICT – Information and Communication Technology

Research & Development

Crop Management Practices

- Variety improvement under diverse agroecosystem
- Soil nutrient and water management
- Integrated pest management
- Production cost per unit
- Climate Smart Agriculture

Product Quality Improvement

- Upgrade and establish laboratories
- Post-harvest technology
- Model farms

CURRENT STATUS AND CHALLENGES OF SMART AGRICULTURE IN MYANMAR

1. Variety Improvement and Seed Production

No.	Crops	Unit	DOA farm	SGA farmer	Private	Total
1.	Rice	kg	3,236	115,771	5,659	124,666
2.	Maize	kg	11,595	88,675	-	100,270
3.	Wheat	Basket	2200	-	-	2200
4.	Oil seed crop	Basket	2922	21981	6727	31630
5.	Pulses	Basket	21462	36716	245	58423
6.	Sweet Potato	shoot	530000	-	-	530000
7.	Casava	branch	680000	-	-	680000
8.	Sugarcane	ton	11,325	982,615	-	993,940
9.	Coffee	kg	998	-	-	998
10.	Cotton	kg	98,076	100,753	-	198,829
11.	Rubber	seedling	326000	1536000	-	1862000

2. Extension & Knowledge Share

- Adoption of Good Agriculture Practices on 15 major crops
- Establishment of model farms to demonstrate appropriate smart farming
- Capacity building for agricultural extension staffs and farmers
- Strengthening the integrated crop management under diverse agroecosystem
- Awareness of food safety
- Sharing relevant Postharvest technology

Information and communications technology (ICT)

- Call Center under Department of Agriculture
- Development of mobile applications on agricultural extension
- ICT modern classroom in State Agricultural Institute
- Creating Portals on major crops and activities to share updated information

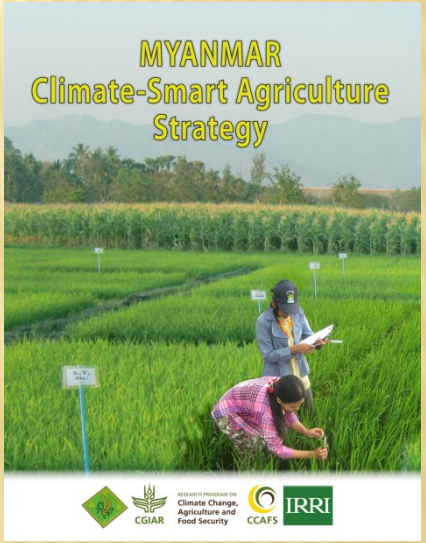
No.	Network	Counts
၁။	Hot-Line	536
၂။	Viber	861
၃။	Telephone	535
၄။	Facebook	745
	Total	2647

3. Market and Quality assurance on Products

- Provide market information in both domestic and international
- Promotion of value chain of the produces under diverse agroecosystem
- Adaptability for new crop varieties to support food security
- Enhancement of Contract Farming and PPP for smallholder farmers
- Improvement of community interest through smart agriculture solutions
- Creating market opportunities in terms of quality assurance

4. Myanmar Climate Smart Agriculture

- Weather Forecasting & Information Sharing; Early warning system
- Varieties Change
- Crops Change
- Biodiversity; Crop Diversity & Integrated farming
- Community based Agriculture
- Reducing agricultural risk to climate change for farmers
- Resource management and Public health in term of food safety

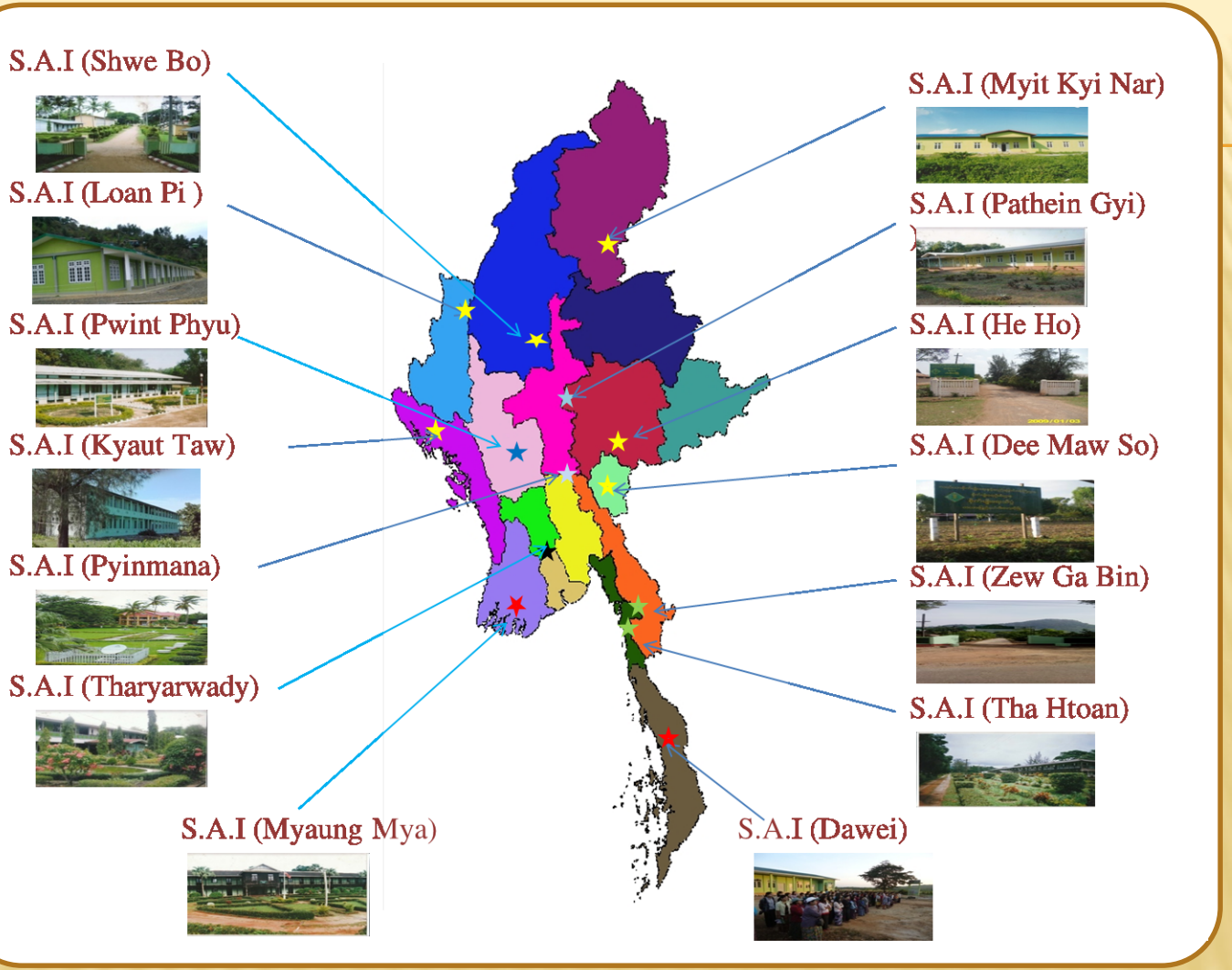


5. Human Resource Development

Number of Training and Workshop done in 2018

No.	Subject	Training	Workshop	Total
1.	Seed production	619	1527	2218
2.	Plant Protection	979	4266	5245
3.	Plant Nutrition	656	3100	3756
4.	Coffee Production	4	7	11
5.	Perennial Crop Growing	64	168	232
6.	Rice farming	473	2496	2969
7.	Law and Act Awareness	47	182	229
8.	Good Agriculture Practice	1412	12190	13602
Total		**4326**	**23936**	**28262**

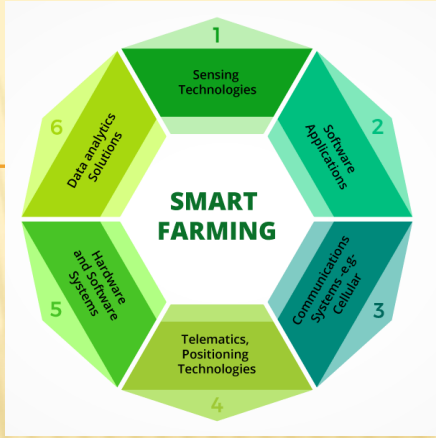
14 State Agricultural Institutes under Department of Agriculture



Training Centers under Department of Agriculture

No.	Training Center	Numbers of Trainee		
		2016	2017	2018
၁	CARTC	1614	2306	2258
၂	PHTC	505	716	420
၃	Bago 10-mile	-	120	160
၄	AERDTC	305	188	424
	Total	**2424**	**3330**	**3262**

FUTURE DEVELOPMENT STRATEGY OF SMART AGRICULTURE IN MYANMAR



- Enhancing innovative ideas on agriculture practices by encouraging young scientists
- Set a network or communication to share knowledge and skills for smart agriculture solutions to the farmers
- Human resource development: to send more staffs abroad for upgrading their study with advanced technology
- Strengthening collaborations internationally

- Review the existing policies on crop production under diverse agroecosystems in accordance with current needs
- Increase model farms and model villages country-wide.
- Establish modernized research centers and service centers
- Encourage the implementation and cooperation through well arranged projects on smart agriculture management
- Develop more ICT-based agriculture practices

POSSIBLE COLLABORATION IDEAS WITH KOREA

Collaboration ideas in:

- Sharing ICT
- smart farming solutions
- Training and Education for smart agriculture practices
- Projects for establishing research centers and service centers
- Network accesses among extension staffs


THANK YOU VERY MUCH