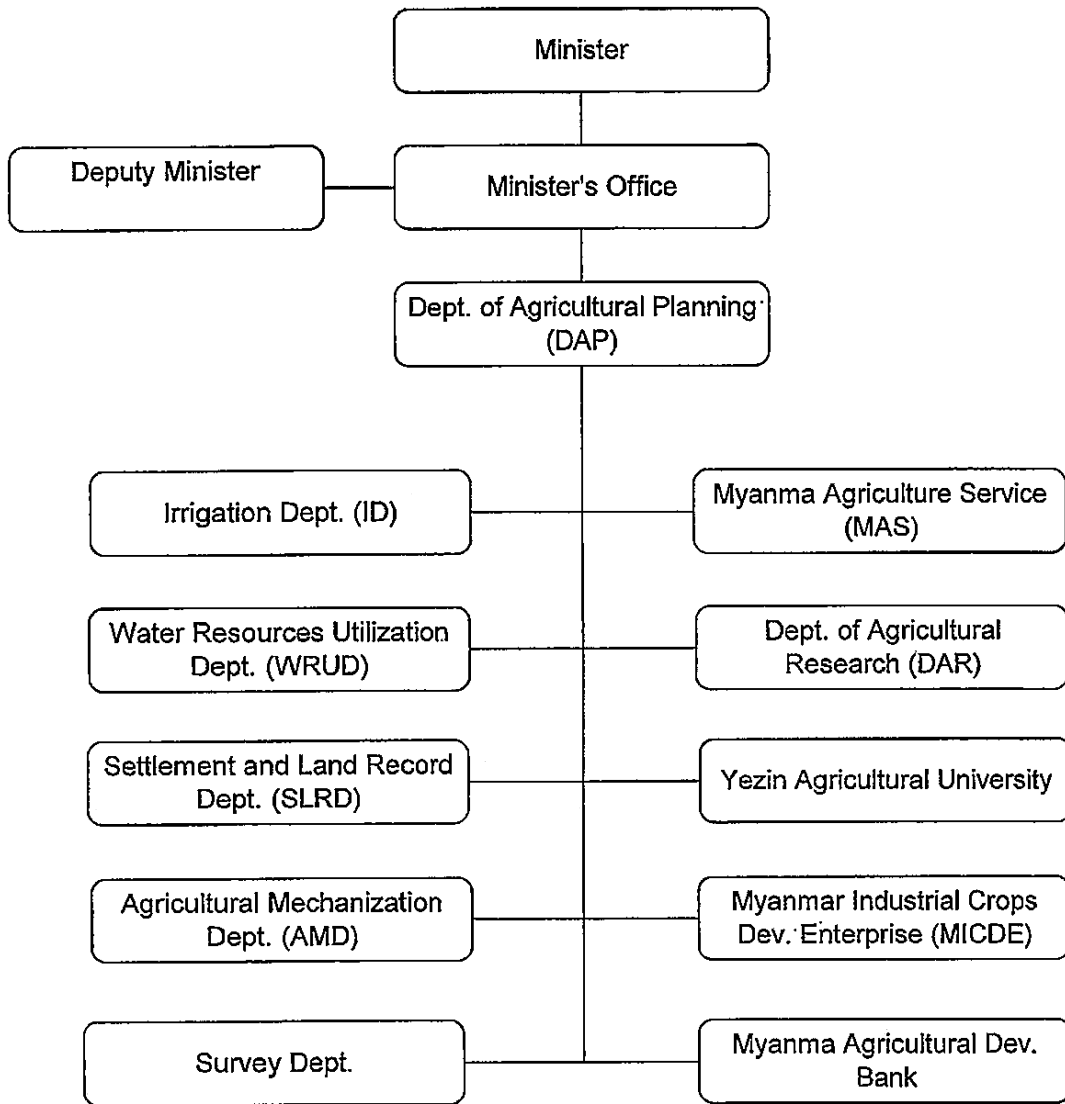
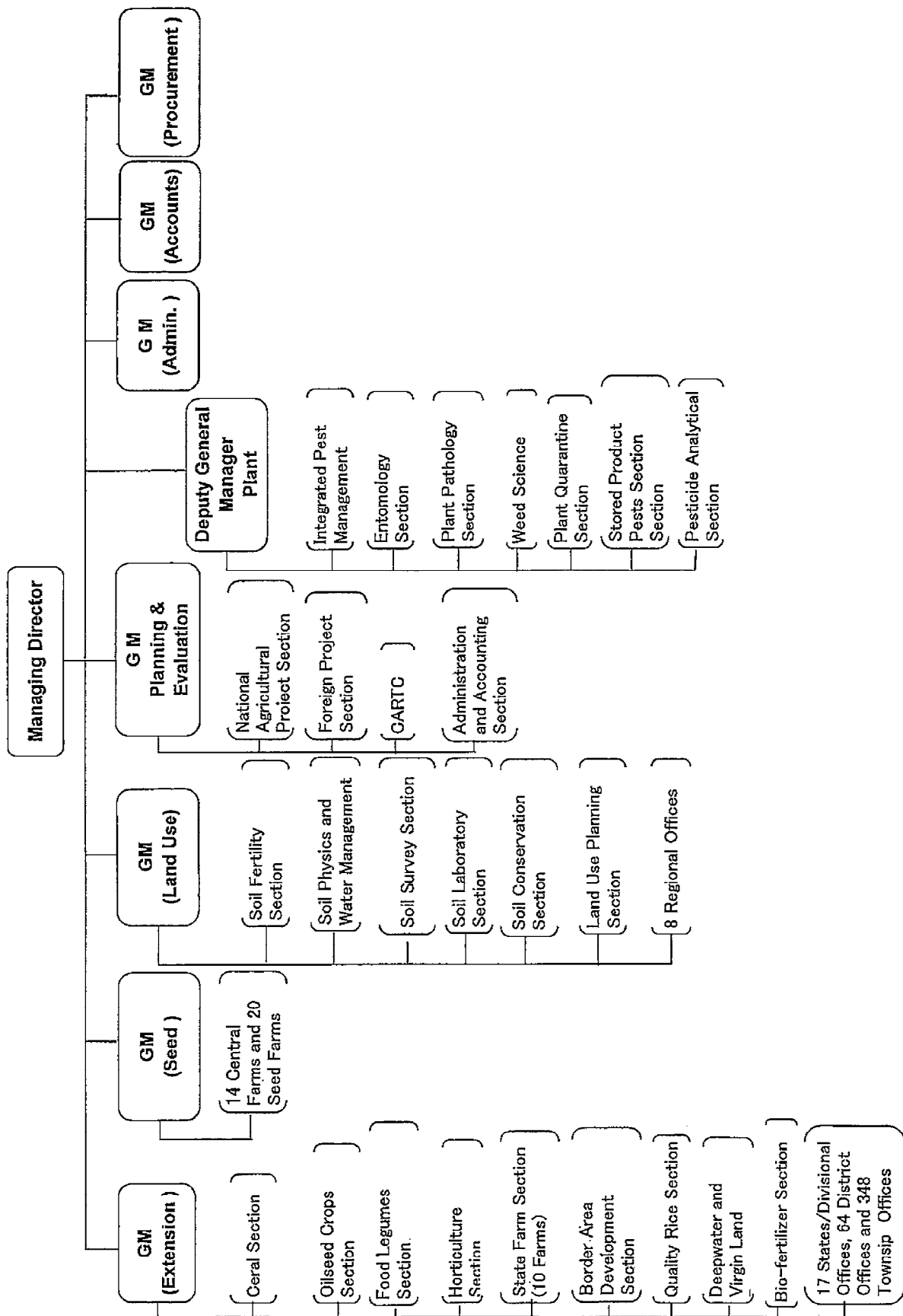


3. 組織図

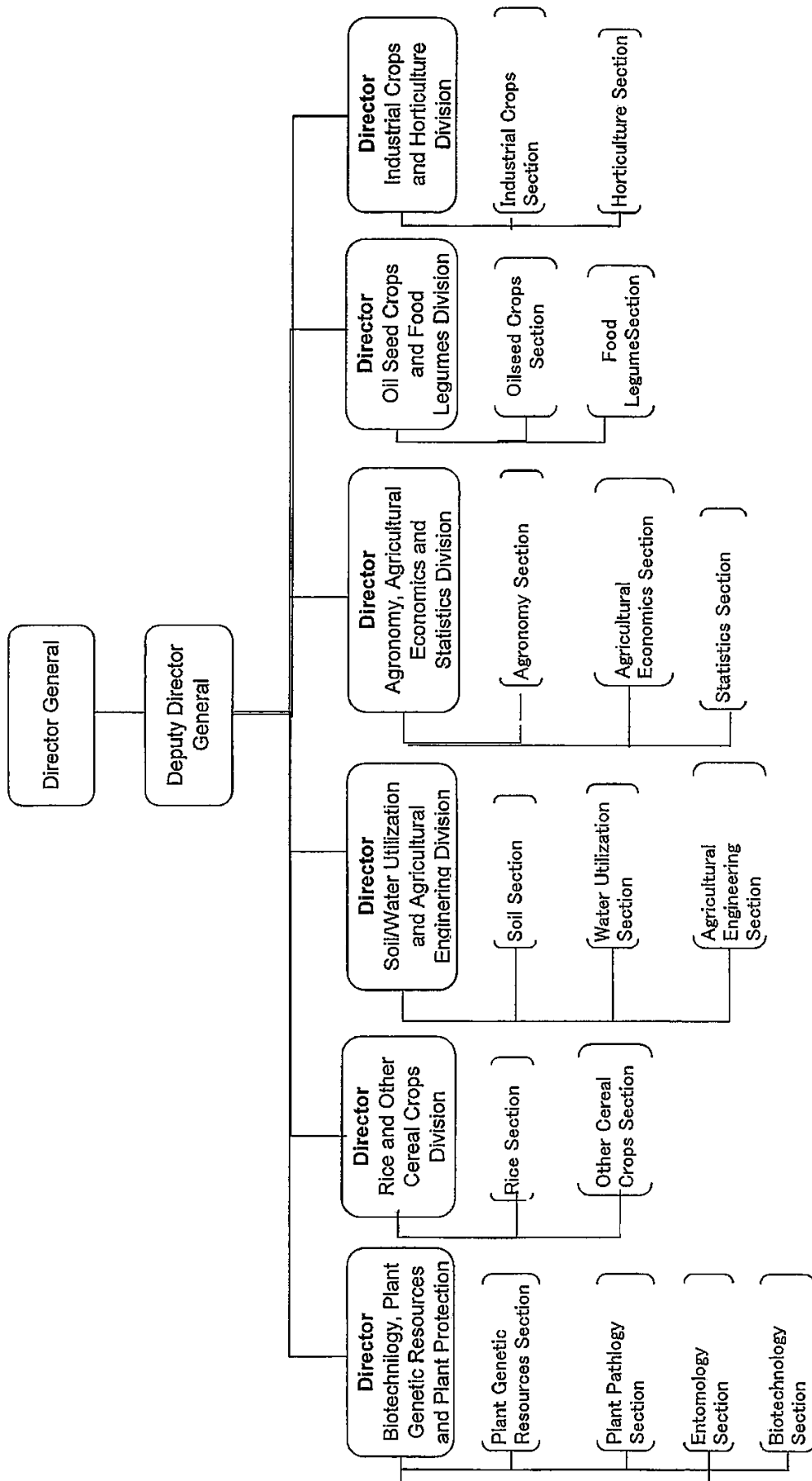
Organization Structure of the Ministry of Agriculture and Irrigation



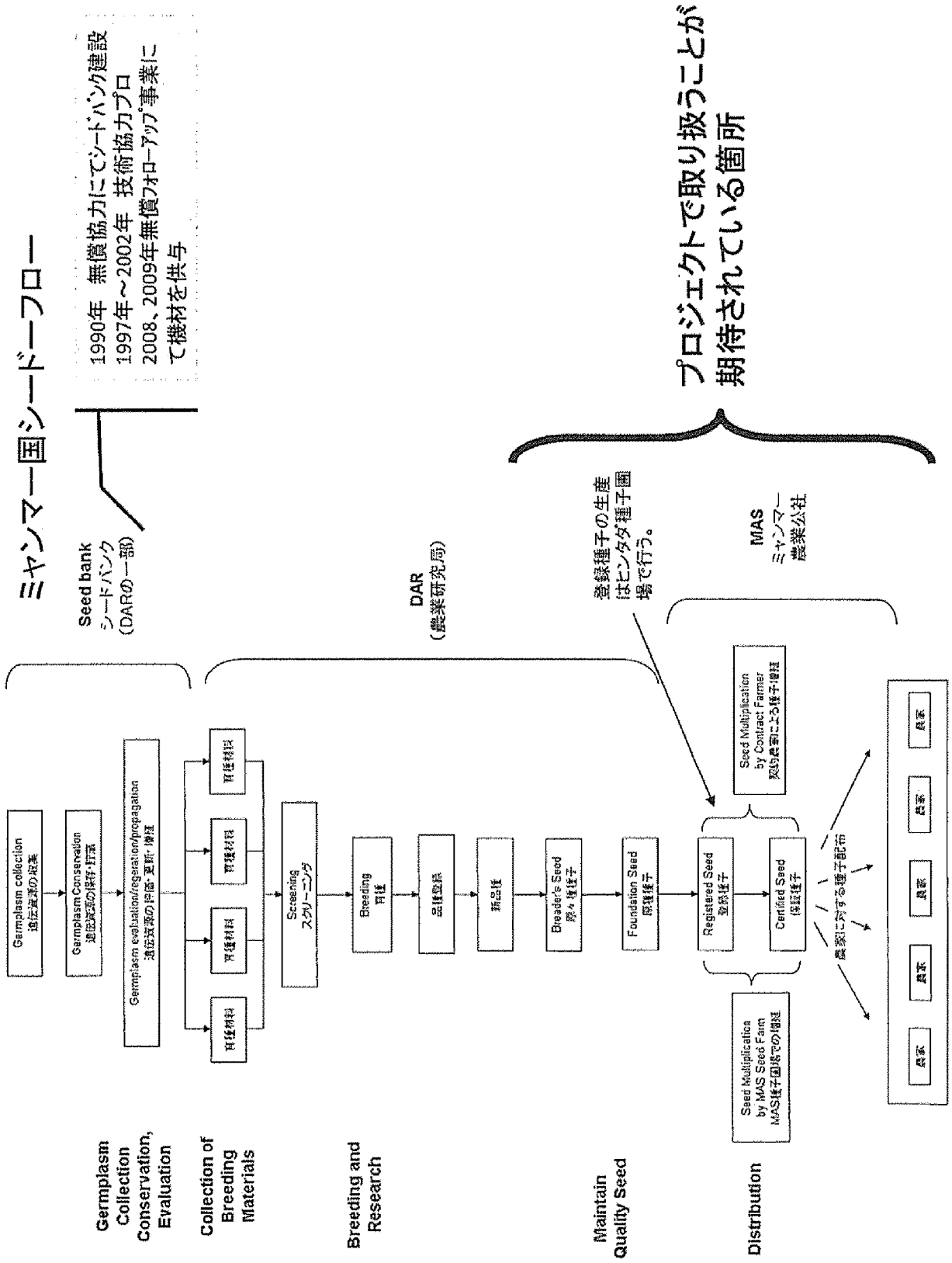
Organization Structure of Myanmar Agriculture Service



Organization Structure of Department of Agricultural Research



4. シードフロー



5. プレゼンテーション資料 (MYANMAR RICE RESEARCH CENTER, HMAWBI)



LOCATION

- 50 kilometers north of Yangon.
- Located at 17° N, 98° E and 7 meters elevated above sea level.
- Since the centre is located in delta region, enjoying monsoon rain, it can represent the 3 biggest rice bowl regions of Myanmar comprising Yangon, Bago and Ayeyarwady Divisions with the total area of 4 million hectares.

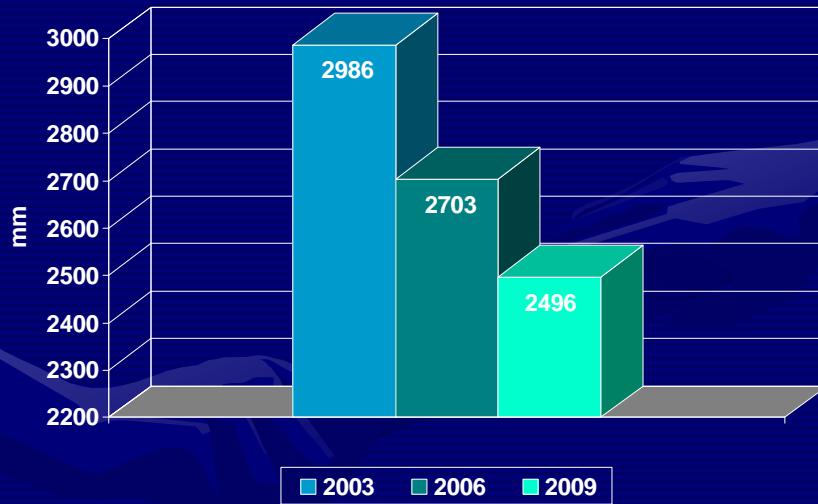
VISION OF MRRC

- ❖ to produce and distribute quality seeds
- ❖ to conduct rice research
- ❖ to disseminate proven rice production technologies conducting trainings, workshops and field days

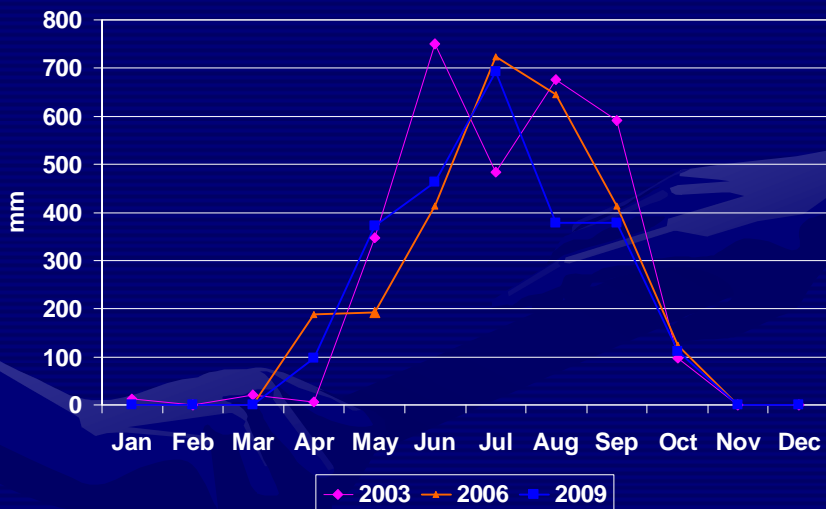
FARM STAFF

Sr. No.	Designation	PhD	MSc	BAG	Others	Total
1	Farm Manager	1				1
2	Joint Farm Manager			1		1
3	Seed Processing Plant Manager			1		1
4	Field Staff			10	6	16
5	Supporting Staff				12	12
Total						31

Total Rainfall in the recent years at Hmawbi

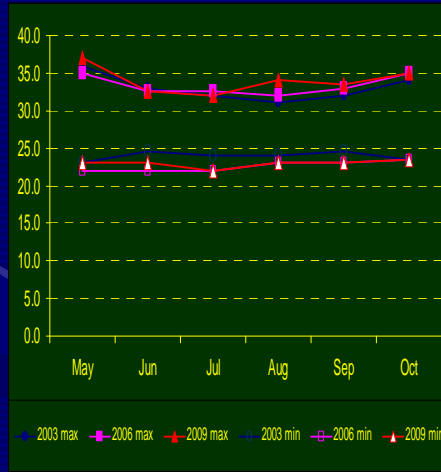


Rainfall distribution

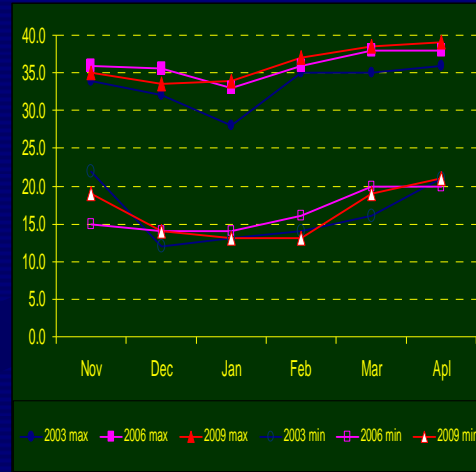


Temperature Variation

Wet Season



Dry Season

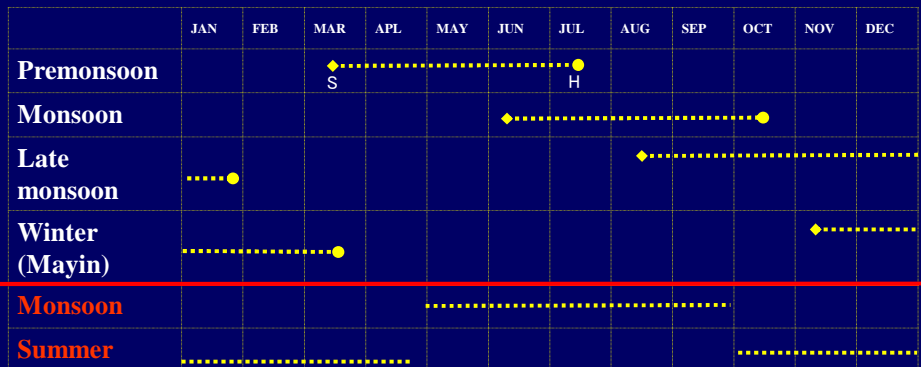
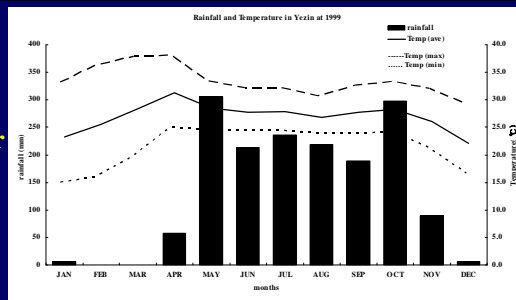


Improved Rice Varieties Released from MRRC

No	Variety	Type	Year of Release
1.	Nga-sein-du-me	C	1914
2.	Byat-ga-lay	C	1915
3.	Ka-mar-kyi	D	1917
4.	Maung-nyo	B	1924
5.	Shan-nye-in	C	1924
6.	Nga-kywe	D	1925
7.	Emata-amagyi	A	1928
8.	Pin-to-sein	A	1929
9.	Shwe-che-gyin	C	1933
10.	Hnan-war-mee-kauk	A	1936
11.	Yar-ma-gyi	A	1940
12.	Let-ywe-sin	B	1943
13.	Let-ywe-sin-ma	B	1947
14.	Ye-baw-sein	A	1952
15.	Shwe-din-gar	A	1956
16.	Sein-ta-lay	A	1976
17.	Hmawbi-1	B	1982
18.	Hmawbi-2	A	1984
19.	Hmawbi-3	A	2005
20.	Hmawbi-4	C	2005

RICE CULTIVATION IN MYANMAR

Time of rice cultivation in Myanmar



S = Sowing time H = Harvesting time

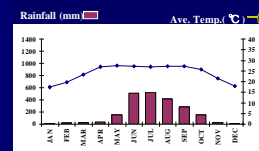
AGROECOLOGICAL ZONES IN MYANMAR



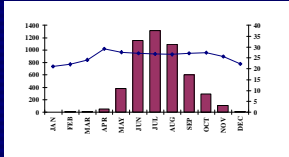
Zones	
Northern mountainous	(NM) zone
Eastern plateau	(EP) zone
Semi-arid	(SA) zone
Western hilly	(WH) zone
Western coastal	(WC) zone
Southern coastal	(SC) zone
Southern plain	(SP) zone
Ayeyarwady delta	(AD) zone

Mountainous regions

Shifting cultivation

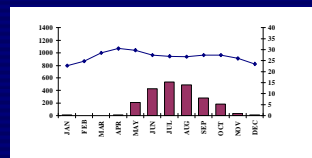


Flooded regions



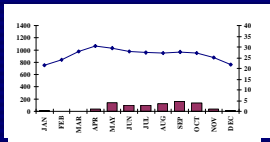
FLOATING RICE

Rainfed lowland regions



TRANSPLANTING BY FORKS

Irrigated regions



Rice sown area by growing condition in Myanmar (2000-01)

	Growing condition	Area (000ha)	%
1	Rainfed	4844	77.3
	- low land	3873	61.8
	- deep water	283	4.5
	- flooded	633	10.1
	- Saline	54	0.9
2	Upland	576	9.2
	- low elevation	373	6.0
	- high elevation	203	3.2
3	Irrigated	852	13.6
Total		6271	100.00

Classification of Myanmar rice by unhusked grain shape and changes of their cultivation

Type of Paddy	Length (mm)	Length/Width ratio	Sown Area (Mil.ha)	
			1965-66	1997-98
1. Emata (A) type	>9.40	>3.30	613 12%	3289 57%
2. Letywezin (B) type	8.40-9.80	2.80-3.30	204 4%	1325 23%
3. Ngasein (C) type	7.75-9.00	2.40-2.80	2963 58%	818 14%
4. Meedon (D) type	7.35-8.60	2.00-2.40	1022 20%	325 6%
5. Byat (E) type	>9.00	2.25-3.00	307 6%	27 0.5%

Sources: MAS, CSO

Popular Rice varieties and promising varieties in Myanmar

SIN THWE LATT



YEZIN LONE THWE







YADANAR TOE



SIN NEW YIN



**Released varieties by
Governmental rice farms**

MANAWTHUKA
Maturity – 135 DAS



KYAWZAYYA
Maturity – 145 DAS



HMAWBI-2
Maturity – 145 DAS



THEEHTUTYIN
Maturity – 110 DAS



YEZINLONETHWE
Maturity – 125 DAS



SINTHWELATT
Maturity – 135 DAS



SHWE MYANMAR
Maturity – 105 DAS



SIN NEW YIN
Maturity – 110 DAS



HNAN-GAR
Flowering date – 1ST WEEK OF OCTOBER



PAW SAN BAYKYAR
Flowering date – LAST WEEK OF SEPTEMBER/
1ST WEEK OF OCTOBER



YADANARTOE
Maturity – 120 DAS



SINTHUKHA
Maturity – 138 DAS



SHWEWARTUN
Maturity – 145 DAS



AYEYARMIN
Maturity – 145 DAS



SHWETHWEYIN
Maturity – 110 DAS



SHWEPYTAN
Maturity – 145 DAS



SHWETHWEYIN
Maturity – 110 DAS



TUNTHIYI
Maturity – 90 DAS

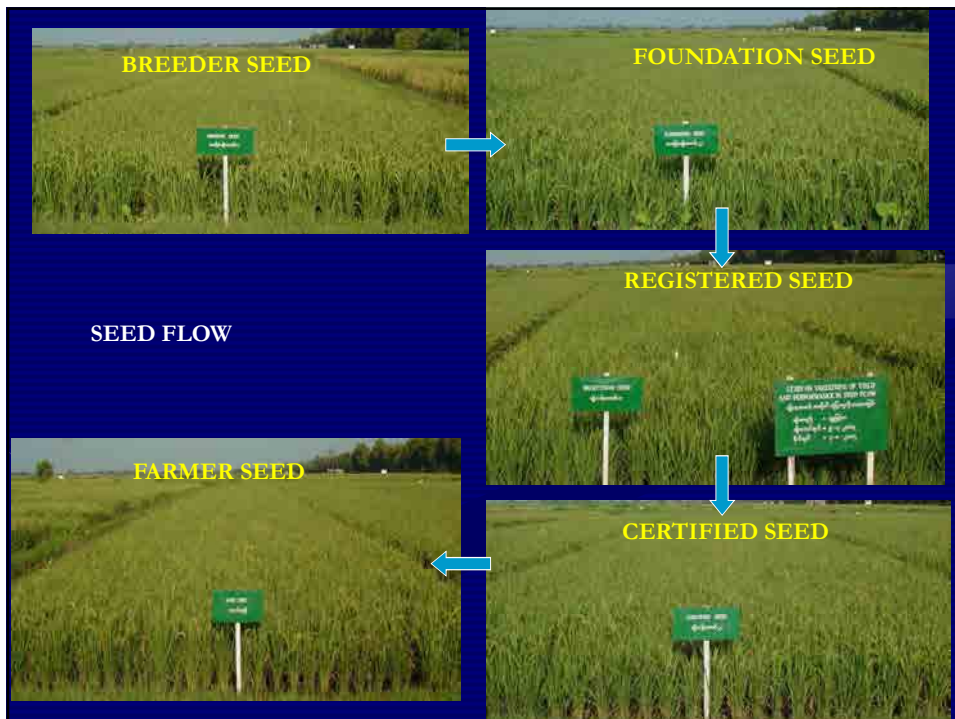


HMAWBI STICKY RICE



Maturity – 121 DAS



SEED DISTRIBUTION SYSTEM [SEED FLOW] IN MYANMAR



Seed Flow

	Seed class	Responsible Organizations
	Breeder Seed	Department of Agricultural Research (DAR)
	Foundation Seed	DAR + Myanmar Agriculture Service (MAS) [Seed Division]
	Registered Seed	Myanmar Agriculture Service (MAS) [Seed Division]
	Certified Seed	Myanmar Agriculture Service (MAS) [Extension Division] + Contact farmers

Multiplication of seed (Breeder's seed)



**Multiplication of seed
(Foundation seed)**



**Foundation Seed
production**

Days after sowing=120

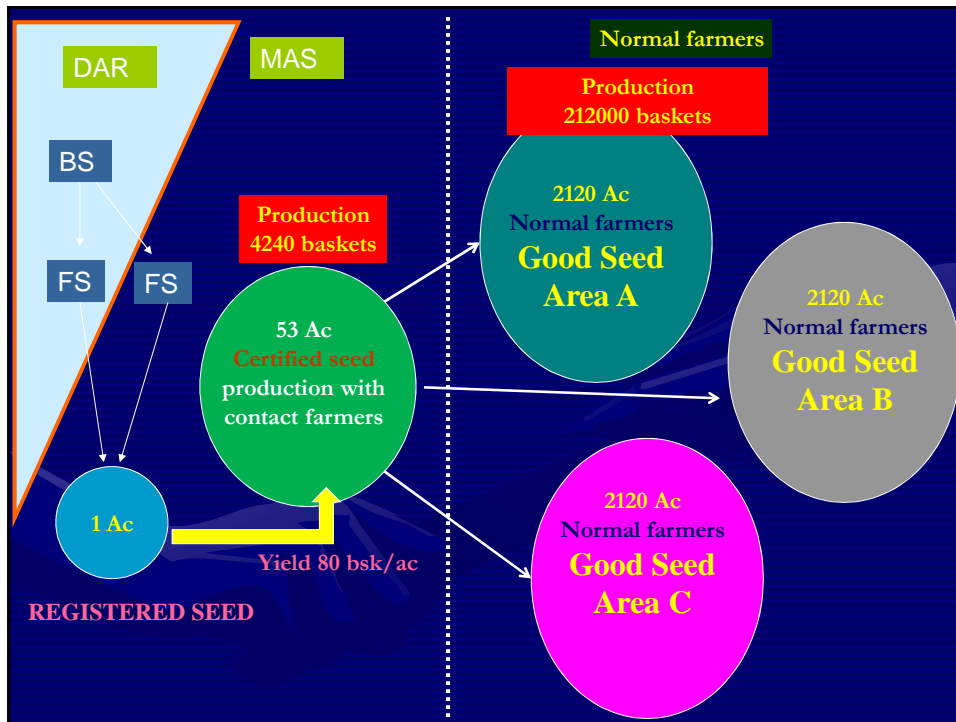
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CONSTRAINTS OF SEED MULTIPLICATION IN MYANMAR

- **Certified Seed production**
 - Farmers' awareness on seed utilization
 - Storage facility
 - Input Limitation – Rouging cost for purity, Fertilizers, pesticides, labour,
 - Infrastructure – water management, productive road, land reforming, dryers, processing
- **BS/FS/RS production in governmental farms**
 - Skillful staffs for seed testing – field and lab
 - Processing plants
 - Collaboration system among responsible departments
 - Production a large amount of varieties