

Main Functions of IWUMD for Agricultural Development, Food and Water Security of Country

The World—s population is growing rapidly and the needs to be increased for living of human life. Many in the international communities much more effort on production of nutritious food. As the world population continuous to grow, production of food demands needs to be improved in order to feed this growing population. In here, water is vital importance for food production from agriculture and animal husbandry to fulfill food security.



While water resources are sources of water that are potentially useful for agricultural, industrial, household and livestock breeding activities. In order to feed this growing population and changing the living standard, water demand is increased year by year much more for production of crops and consumer goods. Meanwhile, fresh water resources are threatened under impending climate change and negative impacts by misuse of human activities.

Although 70 % of the earth surface covers fresh water and that this is comparatively abundant amount, however, 96.5 % of the water on the earth is salt water and only 3.5 % is fresh water, slightly over two thirds of this is frozen in glaciers and polar ice caps so that only 2 % of fresh water can be used actually.

Like other countries, Myanmar also suffers climate change impacts and causes droughts, flood and natural disaster at present and in the future and also resilience of those effects will be significant in global issue. Due to the climate change impacts on variability or fluctuation of natural hydrological regime such as shortening monsoon period, reducing the quantity of surface water and depletion of groundwater and that tends to threaten water security.



The IWUMD under MOALI has accordingly been actively engaged in developing the agricultural sector in country and socio-economic life of people through ensuring agricultural water and domestic water used, and protection and mitigation of natural disaster and complied with necessity of local requirement together with prevailing water resources of the area. In order to mitigate negative impacts of climate change on water resources as water scarcity for irrigation and drinking water in draught of dry zone area and coastal area and effective and efficient use of rain water, the following functions are carried out.

- (a) Feasibility study of water resources and construction of new projects.
- (b) Systematic and effective management of irrigation facilities including Dams, Weirs, Tank and Sluice Gate under Operation & Maintenance of IWUMD as well as local governments.

- (c) Construction and Maintenance of inland and Dikes/ Embankments to prevent fresh and brackish water intrusion which can cause flooding and excavation of silt in the creeks, Canals and Drainages.



In this context IWUMD carry out large numbers of rain water storage infrastructures including Dam (246) Nos, Weirs (144) Nos, Small Tank (72) Nos, Sluice Gate (199) Nos, River Water Pump Stations (219) Nos in order to achieve local requirement and solving water scarcity in the future based on the prevailing water resources of the area.



At present, IWUMD is undertaking for renovation and unsilting of the irrigation facilities under maintained by the local regional peoples throughout the country.



Area benefited by completion of irrigation facilities by the department is (1.147) million hectares of farmland, is serviced by (661) Nos of facilities, (0.110) million hectares by (208) river water pump stations, (0.110) million hectares by (25338) Nos of tube-well, and also totally irrigated farmland is (1.359) million hectares. Moreover, flood protected area by the sluice gates is (0.139) million hectares.

**List of Completed Irrigation Facilities and Beneficial Area
According to States and Division
(2023. End of April)**

No.	State/Division	Numbers of Irrigation Facilities	Beneficial Area (Hectare)	
			Irrigable Area	Flood Protected Area
1	Kachin State	15	12139	-
2	Kayah State	37	18576	-
3	Kayin State	20	3342	-
4	Chin State	3	321	-
5	Sagaing Region	77	252633	-
6	Tanintharyi Region	31	1601	-
7	Bago Region	87	212329	71523
8	Magway Region	104	129150	-
9	Mandalay Region	171	254530	-
10	Mon State	26	10466	26856
11	Rakhine State	27	3655	-
12	Yangon Region	89	69680	68768
13	Shan State	44	80910	-
14	Ayeyarwady	113	167523	47631
15	Naypyitaw Council Area	36	40042	-

Moreover, IWUMD is maintains and operates (102) Nos of embankment and (129) Nos of sea dikes and so that (1.110) million hectares of farmland protected from flooding. In addition, the department is undertaking required activities for mitigation of natural disaster by means and ways of Structural measures together with Non-structural measures within the limitation of budget allocation and capability of human resource to achieve the main objective of the IWUMD.

List Of Embankment and Sea Dikes Maintained by IWUMD(2023-2024)

Sr; No	State & Division	Embankment			Sea Dikes			Total			Remark
		Nos	Length (Km)	Flood Proted Area (Ha)	Nos	Length (Km)	Flood Proted Area (Ha)	Nos	Length (Km)	Flood Proted Area (Ha)	
1	Kayin	2	2.19	960	-	-	-	2	2.19	960	
2	Sagaing	2	81.66	17056	-	-	-	2	81.66	17056	
3	Tanintharyi	-	-	-	14	87.42	4613	14	87.42	4613	
4	Bago	39	630.06	208780	-	-	-	39	630.06	208780	
5	Mandalay	2	17.69	2286	-	-	-	2	17.69	2286	
6	Naypyitaw	5	23.66	4483	-	-	-	5	23.66	4483	
7	Mon	-	-	-	18	83.64	8311	18	83.64	8311	
8	Rakhine	-	-	-	32	312.39	30319	32	312.39	30319	
9	Yangon	22	180.70	33395	27	471.67	100519	49	652.37	133914	
10	Shan	1	65.98	1219	-	-	-	1	65.98	1219	
11	Ayeyarwaddy	29	1188.60	550897	38	1029.41	147118	67	2218.01	698015	
	Total	102	2190.54	819076	129	1984.53	290880	231	4175.07	1109956	

WUMD is implementing the land consolidation and mechanized farming system collaboration with other related departments under the same ministry which is one of the five major tasks for country's agricultural development to get quick win. Due to the land consolidation, these areas has great benefits such as effective irrigation network, proper canal drainage systems, easy access to use machines in all process of agriculture, and easy to transport agricultural inputs and products and these benefits stimulate active participation of farmers in land consolidation projects.



In doing so, main function of IWUMD that will support for ensuring food security through improvement of agricultural productivity.