Water resources in Myanmar

In addition to extensive land and forest resources, the country has abundant water resources. Four main river systems namely the Ayeyarwady, the Chindwin, the Sittaung, and the Thanlwin , flow through the country, providing the basis for increased irrigation and hydropower generation.10 Myanmar’s water resources are greatly underutilized: less than 20% of croplands are irrigated, and the hydropower potential has barely been tapped. Water availability, however, is highly seasonal—80% of rainfall occurs during the monsoon—and significant parts of the country experience serious drought during the dry season. Myanmar’s water resources meet its household needs, crop production and aquaculture requirements, industry needs, and hydropower generation.

With an annual average rainfall of about 2,300millimeters (mm) and the major rivers, Myanmar has abundant water resources . The country also has ample groundwater resources. When reviewed

more closely, however, the situation is somewhat more complex, both from a seasonal and geographic point of view. About 80% of rainfall occurs during the 5- to 6-month monsoon season (from mid-May to October). For the remaining 6–7 months of the year when droughts are common, rice cannot be grown without irrigation. Drinking water shortages occur in many parts of the country. During the dry season, the country’s water resources are not nearly as abundant as might initially be assumed. Further, there is potential for conflicts among water users.

Rainfall amounts vary considerably from one region to another—from highs of 4,000–6,000

mm annually along the coastal reaches and in the mountains of Rakhine and Tanintharyi, to as low as

500–1,000 mm in the Central Dry Zone. In contrast, excessive rainfall in other regions of Myanmar, notably in the Delta Region, often results in flooding, the loss of standing crops, and the displacement of significant portions of the population. Therefore, while Myanmar undoubtedly benefits from its water resources, these resources are

neither unlimited nor always beneficial. Serious drought conditions may occur in some regions and, at

other times, excessive rainfall and flooding damage the production base and community livelihoods.

Only a small portion (3%–10%)25 of the country’s water resources is used. Agriculture

accounts for about 90% of total water use Due to favorable climatic condition,

the total surface water potential of Myanmar is about 1,000 km3 per year

from 10 major river basins. Most water is surface water, with groundwater use amounting to only 9% of the total (despite its potential for dry season irrigation). Irrigation facilities cover close to 2.3 million ha, or about 19% of the country’s cultivated area.

However, only some 900,000 ha are irrigated during the dry season, with the balance of coverage serving

to provide supplementary irrigation during the monsoon season. The largest irrigated area is served by

pumps (mainly farmer operated), which covers 38% of the total irrigated area. The second-largest area is

surface irrigation from dams and weirs (57% managed by the government and 43% by farmers), which

covers 29% of the total irrigated area.



