Water project offers hope to farmers in Myanmar’s central dry zone

Taking shelter from the midday heat in a bamboo hut among the paddies and pulses of Myanmar's central Dry Zone, it is easy to drift back in time and imagine what life must have been like in the Kingdom of Pagan 1,000 years earlier. Then the farmer who has invited you there for tea pulls out his smartphone and a diesel water pump fires up in the distance, and the fantasy abruptly ends.

While the Dry Zone farmers of today are using techniques and working alongside irrigation schemes that are ancient in origin, the historical and climatic contexts that define their future livelihoods are dramatically different. Covering 13 percent of Myanmar's land, the region is now home to around a third of the country's 52 million inhabitants, and according to the United Nations Development Programme, it has become the most food insecure region in the country. A 2013 survey found that 18 percent of households had inadequate food for consumption, and more than a quarter of children under the age of five were underweight.

Families that have been farming the land for generations have learned to adapt to blisteringly hot dry seasons and a southwest monsoon that brings a highly unpredictable mix of light rainfall events interspersed with dry periods as long as two weeks. This has resulted in a patchwork of approaches, including individual farmers growing rain-fed crops like sesame, groundnuts and pulses bound for India, and taking advantage of temporary access to groundwater or alluvial soil along riverbeds. Although hydrogeological research is sparse, scientists believe that vast, unexplored aquifers suitable for agriculture and consumption may underlie much of the Dry Zone. Or those fortunate enough to have access to schemes put in place under a government mandate to irrigate 25 percent of cultivable land in Myanmar, a whole separate set of challenges exist. According to International Water Management Institute or IWMI, less than 16 percent of cultivated land in the Dry Zone currently has irrigation infrastructure in place.