## Agriculture and farmers in Kurdish region <Part 2>

## Kurdish grains

The main grain production in the Kurdish region consists of wheat and barley. Wheat is the most important grain and is the staple food of Iraqis. In restaurants, a large amount of Iraqi flat bread (naan) is served – so much in fact that it is impossible to finish. On the other hand, barley is mainly used as livestock feed. In this part, we would like to introduce what we learned in Erbil related to wheat cultivation.

Wheat production in the Kurdish region is mainly rain-fed, making use of the region's relatively abundant rainfall. However, rain dependent cultivation is heavily influenced by rainfall (quantity and patterns). As a result, both cultivation area and yields have a large annual variation. The 20-year data accumulated since 1980 shows variations between 200,000 and 600,000 ha for cultivation area and between 400 and 1,300 kg/ha for production. The actual total yield ranged from 120,000 to 650,000 tons.

In the Kurdish region, wheat is planted in winter. When we visited farmers in May, it was about 2 weeks before the harvest. The main farm work of wheat cultivation consists of plowing, seeding and harvesting. Although sometimes herbicide is applied after plowing and seeding, basically there is not too much to do until harvest. Generally, plowing and harvesting are done using machinery. The use of tractors is also becoming common. Many farmers rent a tractor and combine harvester to deal with plowing and harvesting, while smallholders sow seeds manually. Seed production is often done by farmers themselves collecting their own seed, although the Kurdistan Regional Government distributes seeds upon occasion.



Fields of different varieties of wheat

As mentioned earlier, cultivation is heavily dependent on rainfall. Perhaps because there is no guarantee for harvesting, fertilizer use is generally low. The main fertilizer used is urea and DAP (Diammonium phosphate) and we heard that the average use is around 120 kg/ha. The amount also differs depending on the disposable income of the farmers. In the farmland in alluvial lands near rivers with stable water sources and irrigated areas, it is possible to have stable harvest and tasks such as fertilizer application and weeding are done

more meticulously. While rain-fed cultivation can produce around 1 t/ha, in irrigated areas, this can be increased to more than 2-3 t/ha.

Given this, with the Kurdistan Regional Government support, irrigation facilities such as centre pivots have been introduced in recent years. The innovative farmer whom we visited was a full time farmer cultivating wheat in winter and maize in summer, and he was using 6 centre pivots in the 170 ha farmland, which he purchased himself. He seemed to be one of the largest wheat farmers in the Kurdish region. We were told that by introducing the irrigation facility, the yields increased by approximately five times. One aspect which worried us a little bit was related to water management. Determination of water amount for irrigation and irrigation intervals was done only based on the land owner's empirical knowledge. While it is praiseworthy, technical training on water management would still be beneficial for ensuring water saving and economic efficiency of operation.

We heard that the biggest challenge facing wheat cultivation these days is rust disease. Once rust breaks out, there is a major impact on yields. The Kurdistan Regional Government is making efforts to counter rust, testing rust-resistant varieties from abroad for introduction.

Incidentally, farmers ship wheat to 2 silos in Erbil to distribute the produce around the country. The price for wheat is fixed every year at an officially determined rate throughout Iraq. Wheat is categorized into different classes depending on the quality, degree of dryness and amount of impurity.



Silo in Erbil

A large amount of Iraqi government subsidy is invested in wheat production, supporting farmers to increase their yields. The Iraqi government also guarantees the purchase and price, providing stable income for farmers. In addition, the Iraqi government distributes free wheat to its nationals. In the long run, people may fear that this might establish the farmers' dependency on subsidies. Nonetheless, Iraq is putting a lot of effort into increasing wheat production and the Kurdish region with rain-fed cultivation possibility is seen as an important wheat production base.