

Farming nation that does not produce chemical fertilizer – the reality of Arabia’s bread basket

Sudan has been called the “Arabian bread basket” for millennia. It was always said to be a country with high potential for agricultural production. It is also a country which does not manufacture any chemical fertilizer.

We have mentioned Sudan several times before in AAINews. This time I had the chance to visit the country for three weeks. Sudan is the third largest country in Africa with a land area of 1,880,000 km², or around five



Onion field waiting for irrigation

times as big as Japan, even after South Sudan became independent. After the independence of South Sudan, oil revenue went down sharply, making agriculture even more important. Country’s arable land is said to be approximately 84 million ha, however areas that are regularly cultivated are between 10 to 14 million ha. Much of that is rain-fed and irrigation farmland accounts for around 2 million ha. Rain-fed agriculture is unstable and fluctuate in terms of cultivated area and yield, as it is impacted by the amount and patterns of rainfalls. As in other countries, the role irrigation agriculture in Sudan plays is significant. Although irrigated farmland is only 5 % of the total cultivated area in the country, grain production from this area accounts for one third of the total production.

On the other hand, low productivity even on the irrigated farmlands is a major issue in Sudan’s agriculture. For example, if we compare the production of wheat and cotton with the neighboring country of Egypt, there is an obvious difference. It is clear that there is potential for Sudan to increase its productivity.

Yield comparison of irrigated wheat and cotton (kg/ha)

Crop	Sudan	Egypt	Ratio
Wheat	1,736	6,350	27.30%
Cotton	1,211	2,847	42.50%

Source: FAOSAT (Average of 2009-2013)

The main reasons for this low productivity is the high cost of agricultural materials such as fuel, fertilizer, seeds, and pesticide. This creates a cycle of low chemical fertilizer input leading to low yield. Although Sudan is a farming country, it does not have a single

factory that produces chemical fertilizer and the country is entirely dependent on imports. In recent years fertilizer price hikes have made it even more difficult for farmers to access fertilizers.

In addition to material inputs, there is potential also to improve agricultural yield by improving irrigation. Largely, Sudan’s irrigation systems are managed by the central government, state governments, private sector companies and farmers. There is no lining in the canals and the irrigation method used is mainly basin irrigation, and people are not feeling the need for water saving, or rather they are not aware of the need for water saving. Although at this stage, there are ample water resources, people are dependent on water from limited water source such as the Nile. In order to expand irrigation areas to increase food production, it will be increasingly important to utilize water resources more efficiently.



Maintenance of irrigation channel with heavy machinery



Tertiary channel and irrigated farm land

Incidentally, Sudan received investments in farmlands from countries such as Gulf States and China. Crops produced on these farms are exported to these countries under official agreements. It is a business of “lending farmland and water” for a fee. At the same time, Sudan received a large amount of food aid while still exporting wheat. I hope that Sudan will be able to become a real bread basket rather than the current slightly skewed bread basket.



Clay pots for drinking water often seen on streets



Ferry on the Nile

(By Koto, November 2014)