

Nature and Agriculture in Syria (5)

Part 5: South east desert region

In the south eastern region of the country, along the borders with Iraq and Jordan, lies the desert region known in Arabic as "Badia". This region accounts for 55% of Syria's land area, and much of the badia is arid with an annual precipitation of under 200 mm. In winter, the temperature in some areas drops below 0oC. By contrast, temperatures in the summer soar to 40oC. Temperature fluctuations, both in one year and in one day, are very large. From a geographic perspective, the southern side is higher in altitude and some areas along the Jordanian border are covered with lava beds.

It is impossible to grow crops in this region without irrigation, therefore farming can be seen only along the rivers Euphrates and Kabul. Wind-born sand particles and salt accumulation are two major problems facing agriculture in these areas. Other problems include localized torrential downpours and floods which can cause major damage to farm land. The surrounding areas have been used by nomads. However, as farm land expands and areas where the nomadic lifestyle is no longer possible increase due to afforestation projects, pressure is being exerted on natural vegetation which serves to accelerate land degradation. This causes more drifting sand and an increase in flooding. Under the circumstance, it is an extremely important task for the future of the Badia region, to establish desertification prevention technologies and methods that effectively utilize the characteristic features of the region.

Badia is increasingly becoming a target for new development due to the utilization of underground water and the introduction of water harvesting agriculture. There have already been many projects regarding development in Badia. The ICARDA experimental center has developed model crop fields using a water harvesting technique, and at the Malaga experimental center in the suburb of Aleppo, various research programmes are underway regarding such issues as vegetation rehabilitation and range land management. In cooperation with the UNDP, the Irrigation Department is implementing a comprehensive basin development project at the Mhasse experimental center with the aim of improving the efficiency of water use. The Badia Development Department has been undertaking research on sand fixation in the Kisrah area and on the prevention of desertification in Jabal Bishri. In the Tanf region close to Syrian borders with Jordan and Iraq, vegetation rehabilitation and livestock development programmes are underway using various water harvesting techniques. In addition, at Mount Abd Al-Aziz in Hassake, Japanese researchers and Japan Overseas Cooperation Volunteers have been conducting research work into vegetation on grazing land and soil and livestock breeding on the basis of resource management. There have been many interesting findings. Considering the agricultural development of Syria from a long term perspective, resource management in expectations of Japan's future contributions in this field.



An ICARDA demonstration field for water harvesting



Experimental site for range land management in Malaga



Water harvest in the Mhasse experimental center