



Developing marginal lands

By learning from more agriculturally advanced countries like Italy, land with poor soil can be developed to alleviate the sufferings of the poor

By Amjad Mahmood

OUT of 80 million hectares (mha) of land in Pakistan, around 41 mha is marginal or arid. Marginal land has little or no agricultural or industrial value with minimal potential for profit because of its poor soil or other undesirable characteristics. This type of land is often located at the edge of deserts or other desolate areas and rarely attended.

Climatic and social factors have put marginal lands on a path of desertification over the last three or four decades. Although irrigated agriculture has boosted agricultural productivity, little room remains for further exploration due to the decline in areas with potential and reduced marginal benefits.

Due to increasing population and stagnant water resources, Pakistan will eventually face a food shortfall of about 70m tonnes. Over the last 40 years, most of the investment in Pakistan has been directed towards irrigated agriculture, while marginal lands remain neglected.

Conversely, marginal lands have great potential to contribute to the livelihood and food security of the poorest due to a wider gap between the current level of agricultural productivity and its capacity for improvement. They primarily belong to poor communities,



and a large area is available for out-scaling of promising interventions.

Furthermore, wherever available, supplemental irrigation can boost production through crop diversification and intensification. Therefore, future food security will depend on investing in marginal lands.

Areas with high agricultural potential provide the most food to feed the growing livestock and urban populations. To keep prices low, research

and development (R&D) investments in these areas cannot be neglected.

However, with the predicted trends in the population, extended R&D and greater public investment in some low-potential areas could offer a win-win strategy for addressing productivity and poverty problems. Thus, investments in R&D in marginal areas may give the nation higher aggregate social returns than investments in high-potential and prime regions.

technological advancements in the agriculture sector of industrially developed countries like Spain, China and Italy, which have exhibited high-tech agricultural prowess in Gulf states. Even wheat is being produced in this desert area on a large scale.

Italy is Pakistan's third major trade partner in the European Union and a source of around 30 per cent of agricultural machinery imports.

"We know Pakistan is a water and financial resources-scarce country. The Italian industry has invested a lot, both in terms of financial and human resources, to develop a number of tools. These tools can map yield, automatically weed and harvest, sort harvested produce, conduct soil and crop health analysis, feed crops, etc. They use water and other farm inputs optimally and thus reduce the production cost for small landholders," says Fabio Ricci, Deputy Director-General of FederUnacoma, Italian Agricultural Machinery Manufacturers Association.

Mr Ricci was here to promote the International Exposition of Machinery for Agriculture and Gardening (EIMA) 2024, a leading trade fair for the agriculture and gardening industry sector that will take place in November at Bologna Fiera, Italy.

He said there's no escaping the fact

that the initial investment in the latest technological solutions can be expensive and unaffordable for small farmers. The issue had surfaced even in Italy, where it was handled by setting up farmer cooperatives and through special government funding.

Establishing farm machinery centres for renting out expensive tools could be another viable solution, he added. These centres may also serve to offer machinery spare parts, service and training facilities for the rural people who may not be educated enough to use sensitive equipment effectively.

Salvatore Pagano, Director of the Italian Trade Agency, says Italy provides advanced technology solutions. Pakistan can benefit its economy by developing close cooperation in this sector with his country.

His office has been working here for the last 30 years to encourage business-to-business meetings, establish contacts between the private sectors of both countries and explore new areas of bilateral trade. He says that Italy regularly holds trade fairs and exhibitions and stresses that the Pakistani business community should participate in them to improve business relations between the two countries. ■