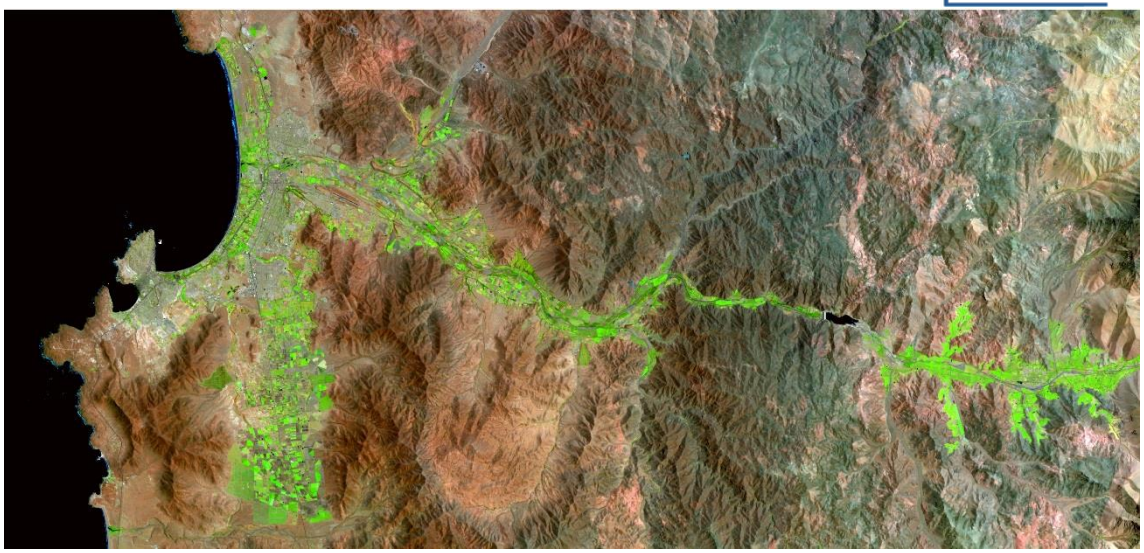

Impact

This initiative proposes to diminish the economic losses associated to the inaccurate management of water resources in the agriculture of LAC countries. The efects of climate change and the lack of modern technologies for irrigation threaten the agricultural sector which in the last decade contributed around 5% of GDP, concentrates to 16% of the employed population and represents about 23% of regional exports. In addition, agricultural activities in the region are fundamental for food security, contribute to economic dynamism, and constitute a fundamental source of subsistence for the population in rural areas, which in Latin America represents 22% of the total population.

Solution

The notable advances in knowledge for the efficient management of irrigation and water resources, as well as the evident technological developments of the last decades, clearly represent a way to improve the water use efficiency and therefore the economic productivity of water in LAC contries.

Summary

Producing more food for a growing population, the increase in competition for the use of water resources among economic sectors, as well as the effects of climate change, represent a future with greater restrictions on water availability in the Latin America and the Caribbean (LAC) agricultural sector. Faced with this complex panorama, the notable advances in knowledge and technological developments in efficient irrigation management represent a way to improve the use efficiency and productivity of water. To lead these challenges, researchers in irrigation from the main public institutions of the LAC countries, in partnership with public and private agencies, will execute a Consensous Project aimed to the modernization of technological tools for the efficient use of water resources in agriculture. This project aims to bring together the wide range of technology for determination of irrigation needs, monitoring and control, available

from private companies to the end user, using R & D & I alliances and this way to validate and reduce the existing technological gaps in agriculture.

Sustainable development goals

This initiative is aligned directly to SDG 1 (elimination of poverty), 2 (zero hunger) and 13 (action for climate) and indirectly irrigation contributes to many other SDGs. On the other hand, already Commission II of the Intergovernmental Panel for Climate Change (IPCC) in its fourth report included irrigation and increased water efficiency as basic measures for adaptation to the effects of climate change.

Medium-term plan

In the medium term the improvement in the management of water resources in agriculture will improve water productivity (very important in arid and semiarid areas) and the economic sustainability of agricultural holdings. The incorporation of new lands to irrigation (modification of the agricultural frontier due climate change and food needs) will pass through new technologies without needing to use obsolete technological systems with low water use efficiency and low capacity to monitoring and control. As a complementary effect, the greatest source of information from new technologies will improve the capacities of irrigation analysis, useful for the productive sector and for decision-making authorities who define policies for the distribution of water resources. The final objective is to move towards the economic and environmental sustainability of agricultural holdings through the efficient use of water resources.

Potential beneficiaries

The potential surface of irrigation in the ALC region is estimated in 77,8 million hectares. Today ten million hectares are equipped for irrigation, which corresponds to only 3% of the agricultural area of the region. In this way, it is estimated that Latin America and the Caribbean will have the highest rate of increase in the area irrigated worldwide (0.72% per year), incorporating some 6 million new hectares to the irrigation for 2050.

Contact: esaini@iadb.org, secretaria-ftg@iadb.org