

## Quick Facts:

# Irrigation Sector Conservation, Efficiency and Productivity (CEP)

### What are conservation, efficiency and productivity?

**Conservation:** Any beneficial reduction in water use, loss or waste. Water management practices that improve the use of water resources to benefit people or the environment.

**Efficiency:** The accomplishment of a function, task, process or result with the minimal amount of water feasible. An indicator of the relationship between the amount of water needed for a particular purpose and the quantity of water used or diverted.

**Productivity:** The amount of water that is required to produce a unit of any good, service or societal value.



### How water is saved in the irrigation sector?

- A number of activities are undertaken by irrigation districts and irrigators to decrease water lost to evaporation, seepage, field run-off, deep percolation and operational spill.
  - **On-farm conversion:** Changing on-farm irrigation to systems that use less water.
  - **Rehabilitation:** Replacing open canals with pipelines or lining canals with waterproof liners
  - **Automation:** Installing technology such as computer-controlled irrigation structures and water flow monitors that provide real time feedback to water managers.
- Crop production research has also resulted in a broader choice of crop varieties that generally require less water to grow.

### Water savings between 2005 and 2015

- Improvements in combined conservation, efficiency and productivity during the period 2005 to 2015 totaled 48%.
- Sector water efficiency increased by 26%, measured by a reduction in river diversions on a 10-year running average basis. This means that during the period more water remained in the rivers than could otherwise be legally diverted.
- Total land irrigated by low pressure drop-tube pivot irrigation systems increased by 23%. Currently 77% of the land within irrigation districts is irrigated by water efficient low pressure drop-tube pivot systems.
- Crop productivity increased by 22% resulting from more efficient use of applied water and the availability and choice to grow crop varieties that require less water.
- Water savings realized through CEP activities have allowed irrigation districts to increase irrigated area without diverting more water. Saved water is being made available by districts to other users, including food processing facilities, agri-business ventures, for environmental objectives, and for rural water use.

