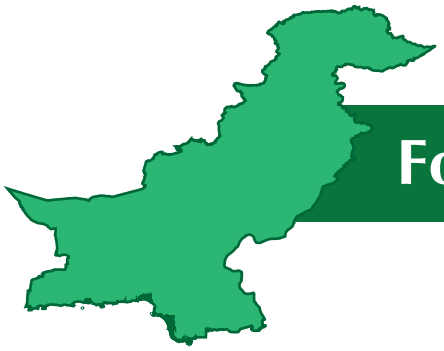

Focus on Pakistan

Policy Brief 3

Recalibrating irrigation water rates

Flat-rate seasonal water rates, based on land area, are paid by Pakistan's farmers to provincial government irrigation authorities. Currently, these charges are so low that they do not even cover the cost of collection. Whilst recognizing that access to reasonably priced or even subsidized water may have many benefits, an alternative approach is proposed that pegs abiana to inflation and adds a small premium. Although this would not eliminate the deficit, it would send a clear message that efficiency savings should be sought and operating costs of water systems reduced.

Background

Irrigation water in Pakistan is supplied on a pro-rata basis, depending on the area, through a system of management known as *warabandi*. Farmers are charged for this water on the basis of a crop season, essentially as a flat rate per unit of land known as *abiana*. *Abiana* rates for the crop seasons of *Kharif* in 2014 and *Rabi* in 2014-2015 are PKR 85 per acre and PKR 50 per acre, respectively. Research conducted by the International Water Management Institute (IWMI) shows that on a per unit volume (acre-foot) basis, irrigation water was supplied to a farmer at PKR 52 during the 2014 *Kharif* season. To put this into context, if a farmer was to purchase/obtain the same volume of water from a groundwater tube well, it would cost them PKR 7,000.

Photo: CC: Umer Malik on Flickrcc-connection

An alternative way of looking at this is to compare *abiana* rates with other countries using an international currency. Irrigation water in the Punjab is priced at USD 0.50 per unit (acre-foot) of water. In Peru, by contrast, the same volume of water is charged at USD 6.17 per unit. Taking into account the difference in the cost of living between Pakistan and Peru (what economists refer to as Purchasing Parity Power), irrigation water in the Punjab is priced at Intl$1.97 whereas it is Intl$11.76 in Peru.

IWMI
International Water Management Institute

A major reform of irrigation enacted under the Punjab Irrigation and Drainage Authority Act (PIDA) 1997 requires that "all operation and maintenance (O&M) costs (of irrigation systems) will be recovered within a period of 7 to 10 years" of the law coming into force. Table 1 shows that, as of 2014, O&M costs are much higher than the *abiana* collected.

Table 1. Operation and maintenance costs, and *abiana* collected (2010-2014).

Year	PKR (millions)		Deficit
	O&M costs	*Abiana*	
2010	8,597	1,882	
2011	7,662	1,609	-376.13%
2012	9,637	1,660	-480.64%
2013	10,230	1,301	-686.31%
2014	11,346	1,121	-912.19%

Despite the reforms above providing a legal framework for PIDA to prescribe rates, fees and other charges, it has been unable to increase *abiana* rates in real terms and to meet the operational budget. IWMI's research in Khyber Pakhtunkhwa Province shows that, today, for every PKR 100 of *abiana* costs, PKR 170 is required for collection (i.e., salary of staff assigned to assess and collect *abiana*). The Punjab is too large and too important as a province to follow this system.

Irrigation plays a vital role in Pakistan's economy and prosperity, yet its irrigation infrastructure is chronically underfunded. The "Irrigation system in Punjab is financially unsustainable, as it recovers only 20% of the O&M costs" (Planning Commission 2012).

Recommendations

IWMI recommends that, through legislation by the Government of Punjab, *abiana* rates are linked to the State Bank of Pakistan Retail Price Index (RPI) of inflation, plus a modest premium. However, if, for example, legislation is enacted today to raise *abiana* by the retail price index plus a 2.5% premium, and with no gains in the collection of *abiana* or reducing (in real terms) the O&M costs, it would still take in excess of 100 years to reduce the deficit to zero.

Therefore, this legislation should not be seen as a silver bullet that will solve all the problems. Nonetheless, it sends a clear signal by the political leadership that *abiana* rates are too low to cover O&M costs. It is hoped that this would encourage irrigation management institutions to make significant efficiency gains in the collection of *abiana* and in reducing O&M costs, so that the deficit can be addressed in a reasonable time frame.

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