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Research Question
a. Are water and energy policies compromising the quality and availability of irrigation water?
b. What are the stakeholders' incentives to consider the environmental trade-offs of groundwater use?

Methods
A policy assessment and appraisal of institutions. Following a tripod framework for political and economic analysis, the institutional settings of the water-energy nexus, incentives & behavior of stakeholders were carried.

Results
During the last 15 years, policies have not provided consistent economic incentives to agriculture producers to consider environmental degradation of groundwater resources. Joint implications of water and energy policies.

Abstract
In the area of agriculture and resource economics, challenges for optimization are continuously updated. Facing an increasing demand to provide food with limited resources, imply a more efficient production under changing environmental conditions (FAO, 2013). The reinvigorated interest on the water-food-energy nexus increases public concern for a responsible and efficient use of natural resources (Allan, Keulertz, & Woertz, 2015).
In the arid province of Mendoza, groundwater irrigation is vital for agricultural activities in certain areas. Political will to improve profitability of small producers has distorted economic incentives and led to the creation of power asymmetries among stakeholders and decision makers. Jointly, a political and economic analysis are carried below to unmask the reform arena of public policies that link water and energy in the agricultural sector.
Local governments shall design solid policies that contribute to the responsible use of natural resources and, at the same time, empathize the public preferences. Institutional settings, lack of information, policy implementation time-frames, and political influence may obstruct the optimizing path of social welfare, providing wrong signals to stakeholders (Dinar, 2000; Shah, Giordano, & Mukherji, 2012).

With the melting of the high peaks in the spring and summer, water is provided by five rivers with a typical mountain system. Precipitation as rain have little input into rivers and it does occur mostly in the summertime with high intensities (Maccari, 2004).
The available water is harnessed for power generation, human consumption and supplies the extensive irrigation network. The mentioned extension reaches 2.5 per cent of the provincial area and concentrates most of the economic activities. More than 80 per cent of the water supply is employed in agriculture. In particular, the agroindustry demands nearly 13,51 hm3 of water in order to produce processed fruits, vegetables, and beverages (Duek, Fasciolo, Quiles, & Zoia, 2013).

The main causes of the low efficiency of irrigation are:
i. Reduced percentage of canal lining at the provincial level
ii. High infiltration due to the prevailing light soils and the phenomenon of clear waters;
iii. Lack of an irrigation planning to deliver water according to the actual cropping needs.
iv. Inadequate distribution systems that deliver large supply of water in a short period of time, leading to losses and waste;
v. Incomplete maintenance in major irrigation and drainage network;

Undoubtedly, the policy planning has been undermined by several economic and environmental facts during the last 15 years. The review of the political treatment of pollution accusations and the attempts to modify the agricultural irrigation subsidies have reveal the weaknesses of decision makers. The slight possibility of modifying the status quo of acquired subsidies for water abstraction implies a quick response from lobbyist and watershed inspections that feel their power space wounded.

During 2013, the energy destined to agriculture irrigation was nearly 600,000 kWh. That is 10.72% of the total energy consumption in the province. From the 300 MW of installed energy capacity for agricultural irrigation, the Ministry of Energy estimates that 15 per cent are inefficiently used. This represents USD 14,6 million of government expenditure (EPRE, 2015).
Considering the scope of this document, the beneficiaries of the irrigation policies are the agriculture producers. According to Jofré (2010), the water institution (DGI) holds all the legal instruments to regulate the underground waters; however, the performance is relatively inferior compared to the management of surface water for irrigation. Under current circumstances, the water and energy policy depict the willingness to increase the knowledge on the groundwater management.
Findings indicate joint implications of water and energy policies for groundwater availability. The DGI remains as the highest authority in terms of resource administration, information systems and control of the water system. The resulting analysis in table III deploys of more policy tools oriented to the demand side and relevant participation of collective management within the framework.
Conceiving a subsidy to extract water may improve the living standard of less profitable farmers is not the right orientation to improve their livelihood. On the contrary, when policies are not complemented under instructive and participatory approaches that improve water management; farmers will continue to rely on their traditional irrigation practices with a marginal productivity of water constant and similar cost of production.
Jointly, the review of the institutional settings and the political disputes about water resources quality and management reveal the public sensibility on the pollution of common pool resource, as the Carrizal aquifer. In particular, when quality degradation is not diffuse but local.
In order to gain political credibility, public institutions need to show the risks, benefits and expose responsibility to deal with groundwater issues (Foster & Garduño, 2012). A credible threat of loosing rights could create enough incentives to improve groundwater management (Livingston & Garrido, 2004).
As stated by Abler & Shortle (1991), the political changes will be viable if effects positively on the institution's budget, gain confidence from large stake political space, and optimize the administrative and enforcement costs. Although, it is expected that lowering energy subsidies for agricultural irrigation will correct the economic incentives to diminish groundwater use; in the past no clear and consistent policies were taken to improve the targeting of beneficiaries of more towards full-pricing energy tariffs.
In these conditions, the stakeholders may perceive that no changes in policies and incentives to continue their business as usual. If the recent modification of electricity tariffs imposed by the national government comes along with better targeting of subsidy beneficiaries, the marginal cost of water abstraction would increase maybe improving irrigation practices and diminishing the overexploitation of the aquifer.