

Water use policy guidelines for productive Subsistence activities in the Andean rural area



Policy brief

Issue

In Colombia, the law establishes that water uses prioritize domestic supply and then, other specific uses such as irrigation and forestry (Decree 1076 of 2015). This classification works well in urban areas where water is used in activities such as washing clothes, cleaning, garden irrigation and even car washing, as domestic uses differ markedly from industrial and commercial activities. However, the conditions in rural areas are obviously different from urban areas, since traditional domestic activities include the planting of crops and orchards in small areas and the breeding of a few animals (Restrepo, 2010). These productive subsistence activities provide food security and sovereignty, for the diversity of products and nutritional benefits. Paradoxically, these activities are prohibited by the legislation that regulates the water supply systems and, therefore, by the Public and Community Services Providers Organizations (OPSP).

Conceptual framework

The concept of multiple uses of water is intended to be an approach to the development and management of water services to meet domestic and productive subsistence needs in rural areas. Being allusive to the planning and management of the systems has implications for public policies and in sectors that influence financing, regulation and technical support to systems (Smits, 2012). This concept is born as a challenge to policies that promote water for limited uses to a single sector,

opens the possibility of supplying the liquid for health and also to improve the welfare of people, especially the most vulnerable, meeting all their needs and improving their livelihoods (Moriarty *et al.*, 2003). Multi-use systems should be planned considering separate water treatment according to the needs of the activities to be carried out, the use of different water sources and the principles of cleaner production (Restrepo, 2010).

The concept of multiple uses of water is framed within the perspective of Integrated Water Resources Management (IWRM), which promotes the coordinated management and development of water, land, and related resources, in order to maximize social and economic well-being in an equitable manner and without compromising the sustainability of vital ecosystems (GWP, 2000). Additionally, the IWRM promotes a new way of conceiving the water cycle incorporating the interaction of humans with the environment that surrounds them and everything that inhabits it. From this perspective, it is understood that the multiple uses of water can reduce poverty, improve the quality of life and wellbeing of people, contribute to equity and mitigate the impacts of climate change.

Activities of peasant rural areas

According to the research, a peasant rural family that, in addition to its domestic tasks, performs subsistence productive activities consists of 3.73 people, with crops in areas that haunt 1 ha.; 1.43 livestock units¹ and consumes an average of 20.2

m³ of water per month, for domestic and productive subsistence use, which allows them to have family income of approximately US\$ 333².

¹ Correspond to two cows, 140 chickens, seven pigs or their equivalent

¹ US\$1 = \$3188 COP

Public policy guidelines for multiple uses of water

Based on the initiatives of experts, both professionals and community leaders, who have worked to identify the activities of rural inhabitants and their needs, the research proposes specific guidelines for public policy.

It seeks to vindicate the activities of the peasants, since their strengthening and access to water for the production of food contributes to their well-being, and food security and sovereignty, factors that promote peace (UN, 2014).

The guidelines are composed of seven principles (fundamental pillars of the proposed policy) and four objectives (goals to be achieved) with their respective strategic lines (specific aspects to consider in order to achieve the objectives).

Seven Principles



1

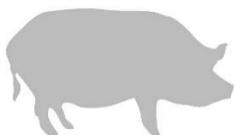
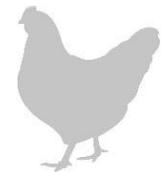
Food security and sovereignty

The sum of food production in the national territory must be in sufficient quantity and variety to satisfy the nutritional and nutritional needs of the population, without relying on international commercial activities.

Uses of water in rural areas

The domestic and productive subsistence activities must be supplied in their entirety from the water supply systems. The uses of water accepted by the norms in the rural area should be: human use, domestic use, and use for subsistence agricultural and livestock activities. These uses should not be considered as commercial or industrial uses.

2



3

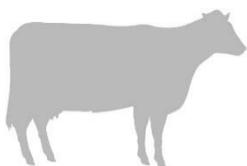
Management of multipurpose water services

The provision of water services for multiple uses must be supported by an organization with installed capacity to meet the needs of the population, both domestic and productive subsistence.

Equitable Access

The entire rural population of the country should have the possibility of accessing water systems for multiple uses according to their needs and domestic and subsistence activities, with a gender focus.

4



5

Innovation

The services of multiple uses of water should permanently promote greater efficiency in the provision of services, from the technical, organizational, productive, social and its relationship with other natural resources.

Rural strengthening

Rural communities must be able to understand the management of the multiple use systems that serve them, both from a technical and organizational point of view, as well as their relationship and influence on natural resources.

6



7

Fair social productivity

Promote a better performance of the community subsistence productive systems, through better agricultural practices, but at the same time, promoting peasant practices related to multi-cultures and food security and sovereignty.

Policy goals

Main goal: to promote the well-being of peasant families by claiming their right to perform productive subsistence activities, through the use of domestic water supply systems.

Specific goals	Define the magnitude of subsistence activities	Define water sources and supply systems	Promote institutional renewal	Strengthen systems management
Strategic lines	<p>Planting area The size of the acceptable area for the sowing of crops as a subsistence productive activity is approximately 10,000 m² (1 ha.)</p>	<p>Amount of water available Analyze the availability of available sources for the supply of multiple-use water systems in rural areas. It is estimated that the needs should only exceed 5.6 m³ of the quantity needed for domestic consumption.</p> <p>Water quality available Study water quality to determine availability, according to the quality specifications for each use. In situ treatment is suggested according to use.</p> <p>Supplement of sources Addition of different available sources and use of each according to the quality required by each activity, including rainwater, fog water, treated wastewater, and reuse of water within the cycle of its use in home.</p> <p>Planning of multi-purpose systems Water supply systems for multiple uses of water must be planned to meet the demands of water for domestic uses and productive subsistence uses, considering the quantity and quality of water required for each use.</p> <p>Environmental sustainability A supply system must not be detrimental to the environment, so the use of water, the amount used and the quality returned to the environment must conserve the ecosystems that surround it.</p>	<p>Differentiated regulations The norms related to water supply for human consumption, domestic and productive subsistence must be reformed according to the needs of multiple uses of water.</p> <p>Articulation of institutions The articulated work between the institutions and their officials, and with the communities is indispensable.</p> <p>Capacity building It is necessary to strengthen the capacities (technical, operational, administrative, legislative, organizational, among others) of the actors that have relation with the systems of multiple uses.</p> <p>Strengthening peasant culture The cultural traditions of the beneficiary population must be considered in the designs, in such a way that the peasant communities are strengthened in their way of life.</p>	<p>Competent organizations The OPSP must be strengthened (technical, operational, administrative, legislative, organizational, among others) to meet the needs of rural communities.</p> <p>Productive technical assistance The development of productive subsistence activities requires the technical support of experts in agricultural activities.</p> <p>Fair rates The pricing methodology of supply systems must consider the multiple uses of water and include a differential scheme for the conditions of rural areas.</p> <p>Operation and maintenance Multi-use systems have specific technical management requirements, since they include elements for water supply for human and domestic consumption, but also for productive subsistence activities.</p>
	<p>Amount of animals Any number of animals equivalent to the combination of 2 cows, 140 chickens, and 7 pigs is acceptable or any amount that does not exceed the water needs of the said combination.</p>			



References

MADS (2015). Decreto 1076 de 2015. Serie Compilación Decretos Reglamentarios Únicos. Ministerio de Ambiente y Desarrollo Sostenible. Colombia.

Moriarty, Patrick y Butterworth, John (2003). The Productive use of domestic water supplies. How water supplies can play a wider role in livelihood improvement and poverty reduction. Thematic Overview Paper. IRC International Water and Sanitation Centre. GWP (2000). Integrated management of water resources. TAC Background Papers No. 4. Global Water Partnership. Sweden.

United Nations (2014). Consideraciones ambientales para la construcción de una paz territorial estable, duradera y sostenible en Colombia". Naciones Unidas Colombia. Cooperación Alemana.

República de Colombia (2000). Resolución 1096 de 2000. Reglamento técnico para el sector de agua potable y saneamiento básico – RAS 2000. Ministerio de Desarrollo Económico. Colombia.

Restrepo Tarquino, Inés (2010). Usos múltiples del agua como una estrategia para la reducción de la pobreza. Programa editorial Universidad del Valle. Cali. 232 p.

Smits, Stef (2012). Key Concepts Multiple Use Water Services (MUS). Available at: www.musgruop.org.co



Contact information

Silvia Milena Corrales Marín. Email: silvia.milena@correounivalle.edu.co

Inés Restrepo Tarquino. Email: ines.restrepo@correounivalle.edu.co

From the doctoral thesis: "Lineamientos de política de uso de agua para las actividades productivas de subsistencia en la zona rural andina", by Silvia Milena Corrales Marín, directed by Inés Restrepo-Tarquino. Doctorate in Environmental Sciences. Universidad del Valle (Cali, Colombia). 2018

