04-026

THE ROLE OF STAKEHOLDERS IN WATER MANAGEMENT IN THE GUADALQUIVIR AND MILLUNI BASINS IN BOLIVIA.

Villena Martínez, Esteban Manuel (1); Alvizuri Tintaya, Paola Andrea (1)(2); Torregrosa López, Juan Ignacio (3); Lo Iacono Ferreira, Vanesa Gladys (3); Lora García, Jaime (3)

(1) Universidad Politécnica de Valencia / Universidad Católica Boliviana, (2) Centro de Investigación en Agua, Energía y Sostenibilidad, Universidad Católica Boliviana San Pablo, (3) Universidad Politécnica de Valencia

The integral management of water is an activity that allows to maintain and improve the state of natural resources through the implementation of adaptive and participatory management approaches of the beneficiaries. Water management is conflict management that can be resolved with stable and reliable systems, in addition to having clear rules in the participation process for decision-making. This, in constant coordination and management with stakeholders. The Political Constitution of the Bolivian State establishes that water is a human right and has laws and norms that allow the regulation, management and exploitation of water at each political-administrative level in Bolivia. However, the different cultures, idiosyncrasies and the different social and political conflicts that arise around water make it difficult to implement public policies and carry out projects. This article identifies and defines the role of the different stakeholders in the water management of the Guadalquivir river basins located in Tarija and the Milluni basin in La Paz, Bolivia. It also analyzes how different cultures and geographical locations generated different political, social and cultural scenarios that must be treated and managed with special adaptive models.

Keywords: Stakeholders; water management; adaptive models; integral management.

EL ROL DE LAS PARTES INTERESADAS EN LA GESTION DEL AGUA EN LAS CUENCAS DEL GUADALQUIVIR Y MILLUNI EN BOLIVIA.

La gestión integral del agua es una actividad que permite mantener y mejorar el estado de los recursos naturales a través de la implementación de enfoques de gestión adaptativa y participativa de los beneficiarios. La gestión del agua es una gestión de conflictos que puede resolverse con sistemas estables y confiables, además de contar con reglas claras en el proceso de participación para la toma de decisiones. Para ello, la constante coordinación y gestión con las partes interesadas es fundamental. La Constitución Política del estado boliviano establece que el agua es un derecho humano y cuenta con leyes y normas que permite la regulación, manejo y explotación del agua. Sin embargo, las diferentes culturas, idiosincrasias y, los diferentes conflictos sociales y políticos suscitados en torno al agua dificultan la implementación de políticas públicas y la ejecución de proyectos. Este artículo identifica y define el rol de las diferentes partes interesadas en el manejo del agua de las cuencas del río Guadalquivir ubicada en Tarija y la cuenca del Milluni en La Paz, Bolivia. Analiza, también, cómo las diferentes culturas y ubicaciones geográficas generaron escenarios políticos, sociales y culturales diferentes que deben ser tratados y gestionados con modelos adaptativos especiales.

Palabras claves: Partes interesadas; manejo del agua; modelos adaptativos; manejo integral.
Correspondencia: Vanesa Lo Iacono Ferreira valoia@upv.es" Esteban Manuel Villena Martínez esteban.villena@gmail.com
Agradecimientos: A la Universidad Católica Boliviana San Pablo - Regional Tarija y a sus autoridades por el apoyo y financiamiento al presente proyecto e investigación. Y a la Universitat Politècnica de València-Centro de Investigación en Agua, Energía y Sostenibilidad

1. Introduction

Pahl-Wostl C., 2007, points out that the integrated management of environmental resources is a useful activity that allows to maintain and improve the state of an environmental resource affected by human activities. This must be approached from a broad perspective of possible trade-offs and different scales in space and time.

For Roger, P. and Hall, A. (2003), water governability or governance is "the set of political, social, economic and administrative systems that exist to develop and manage water resources and the provision of water services at different levels of society, while for the United Nations Program (UNDP) through the Water Governance Facility [WGF], (2011), they are political, social, economic and administrative systems that influence the use and water management, requiring the formulation, establishment and implementation of water policies and legislation The results depend on how stakeholders act in relation to the rules and roles assigned to them.

For their part, Dourojeanni, A. and Jouravlev, A., (2001), identify five dominant factors that drive the debate and changes in water management, the need to promote sustainable development with goals of economic growth, equity, and environmental sustainability, the dispersion and institutional and legal lack of coordination between multiple state and non-state agencies, open competition between users of water and natural resources in the basins, which generate lack of control in management, favoring instruments or means predetermined to achieve integrated water management and finally, a low perception of the needs and alternatives of governance in water management.

Freeman, (1984), Jacobs, MH, and AE Buijs (2011) define stakeholders as “any group or individual that can affect or be affected by the achievement of the objectives of a project” and that managers of water resources increasingly need to take into account the views of stakeholders. Mayers, J. (2005), on the other hand, defines it as the people who matter in a system and that the analysis of their power is a tool that helps to understand how people affect policies and institutions, pointing out that Approaches to stakeholder analysis are related to the purpose and initial understanding of the system, identification of stakeholders, interest in and characteristics of stakeholders, patterns and interrelationships among stakeholders, and assessment of power and roles. of each interested party involved in the system.

Yang, L., Shun-Chan, F. and Scheffran, Y. (2016) and Trawick (2003) use a stakeholder analysis method based on levels of interest and influence in water resources management, classifying them into four categories: Key Players, Context Makers, Themes, and Crowd. Reed. et al, (2009), details how and why an analysis of stakeholders should be carried out for the participatory management of natural resources and proposes a typology of analysis consisting of methods to identify, differentiate and classify and investigate the relationships between the concerned parties.

On the other hand, Lupo, P. (2010), through the definition indicated by the Overseas Development Administration [ODA] (1995a), indicates that the interested parties are those that can significantly influence or are important for the success of a certain project and distinguishes stakeholders as primary and secondary, with primary stakeholders being those that are affected, either positively as direct beneficiaries or negatively such as involuntarily resettled, while secondary stakeholders are intermediaries in the delivery process or aid management.

Clarkson (1994) categorizes stakeholders in a different way, he points out that the former corresponds to those essential for the survival and well-being of an organization and the secondary ones are those that interact with the organization but are not essential for survival or well-being. this. On the other hand, Grimble & Wellard, 1997, distinguish between active and passive parties, the former being those that affect from a decision or action, while the passive ones are the parties affected by said action or decision, either positively or negatively.

For their part, Mitchel et al. (1997), offers a different and widely used way in the classification of stakeholders, based on a possession or possession attributed to two or three of the following attributes, ***power*** (to influence the organization), ***legitimacy*** (of a relationship between stakeholders and the organization) and ***urgency*** (of a complaint). The proposed classification offers three qualitative classes, the one of low relevance that only has one of the attributes and is called a latent stakeholder, the moderately outstanding class that has two of the attributes and calls them future stakeholders and the most prominent class that has all attributes and are referred to as “the ultimate stakeholders”.

Lupo, P. (2010) indicates that the attributes of power, legitimacy and urgency developed by Mitchell et al. (1997) are clear and well-defined that take into account the management and life of the organization more than a purely business field, being attributes a part of daily life and, therefore, affect the relationship between the various actors in almost all the situations and problems of modern society. Likewise, Lupo. P (2010) initiates that the Water Framework Directive (Directive 2000/60 / EC, DMA) adopts this new idea of stakeholder participation (instead of simple public participation) and that the European Commission (EC) (2003) states that stakeholder participation is a key element for the successful implementation of this innovative new regulation for sustainable water management.

In the Bolivian context, Articles 16, 20 and 373 of the Political Constitution of the State, establish that water is a fundamental right for life, within the framework of the sovereignty of the people; and that the state is in charge of protecting and guaranteeing the priority use of water for life, and it is its duty to manage, regulate, protect and plan the adequate and sustainable use of water resources, with social participation. The functions of the Ministry of Environment and Water of the Bolivian state are also established as the reference institution for planning in water management (Ministerio de Medio Ambiente y Agua, 2015).

At the subnational level, through the “Andrés Ibáñez” Framework Law of Autonomy and Decentralization (Law 031) of July 19, 2010, it provides for the assignment of competence in matters of basins and Integral Management of Water Resources to the governorates and municipalities to through the Departmental Water Plans that seek to articulate the different autonomous levels, with the Central Level of the State (Government of the Department of Tarija, 2013).

Currently, the study basins are going through a continuous and growing process of contamination of the main sources of water supply by the presence of heavy metals, making their treatment with conventional methods difficult and ineffective and drastically reducing the availability of drinking water. Faced with this problem, the use of reverse osmosis for the removal of these pollutants has been proposed, allowing efficient and sustained provision for the next decades, however, and given the evidence of the social and political conflicts that arose in Bolivia in recent years It is necessary to analyze the instances that intervene in the processes of management and execution of works related to basic services.

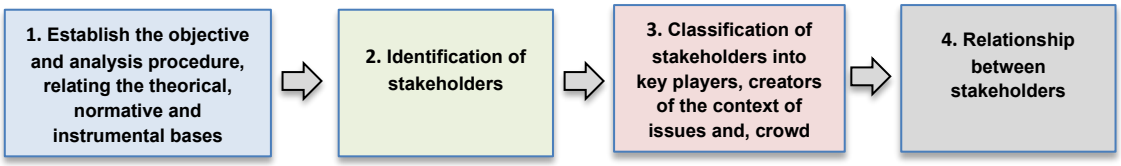
2. Goals

In this research, the stakeholders in water management in two basins of Bolivia that suffer from heavy metal contamination, the upper Guadalquivir basin, and the Milluni micro basin, will be identified, classified, and analyzed. With the objective of determining that the interested parties would have greater weight in making decisions about the implementation of a system for the treatment of drinking water by reverse osmosis.

3. Materials and methods

Under the approaches and methodologies proposed in the works developed by Mayers, J. (2005), Yang, L., Shun-Chan, F. and Scheffran, Y. (2016), Trawick, 2003, Lupo, P. (2010), Reed et al., (2009) and ODA (1995 a, b) the analysis of stakeholders in the upper basin of the Guadalquivir river in the Department of Tarija and in the micro-basin of Milluni in the department of La Paz. The methodological scheme that will be followed is presented in Figure 1.

Figure 1. Methodological scheme.



Source: own elaboration, 2021

3.1. Study basins

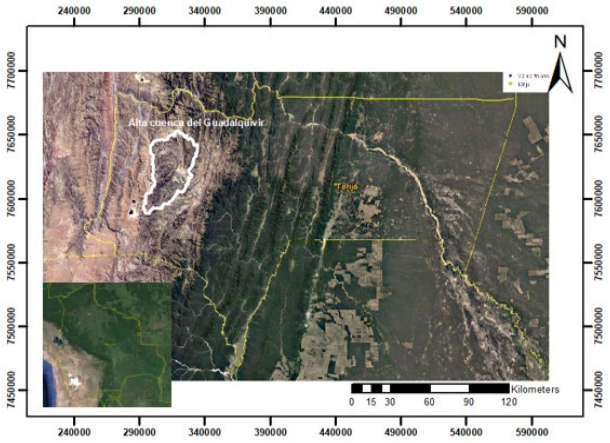
In this research, two basins in Bolivia that suffer from heavy metal contamination will be studied. The upper basin of the Guadalquivir river has an approximate extension of 1,540 km² and includes the central valley of the department of Tarija, mainly in the municipalities of San Lorenzo and Cercado. The Milluni basin is located at approximately 4600 m.a.s.l., it has an area of approximately 40 km2, it is part of the Altiplano basin system. This micro basin presents extreme climatic conditions that are typical of the area. Figures 2a and 2b show the location of the study basins.

3.2. Analysis methods and procedure

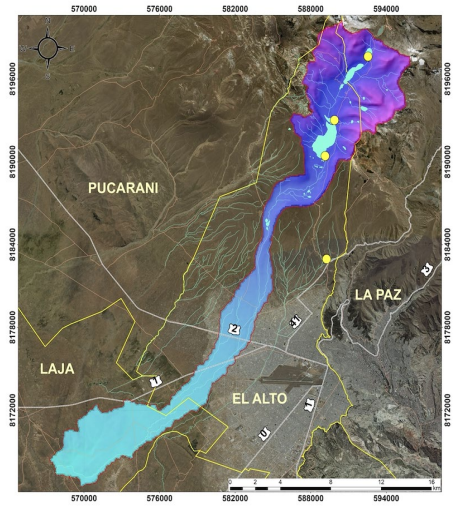
Figures 3 and 4 detail the procedure proposed by Reed. et al, (2009). This relates theoretical, methodological, and instrumental aspects with 3 levels of analysis, 3 phases and 6 steps that must be followed in the process.

Figure 5 illustrates the proposal by Lupo, P. (2010) based on the ODA methodology (1995 a and b) that uses a matrix diagram to classify stakeholders into four different groups. Lupo P. (2003) and EC (2003) point out that the identification of interested parties can be carried out with experts or directly through the project team, allowing, grouping and identifying interested parties by the degree of participation of each actor At each stage, adopting the image of participation orbits developed by Aggens (1998), which is used with levels of government or instances of participation at the national, departmental and international level, Figure 6 shows this scheme of orbits.

Figure 2. Location of the study basins



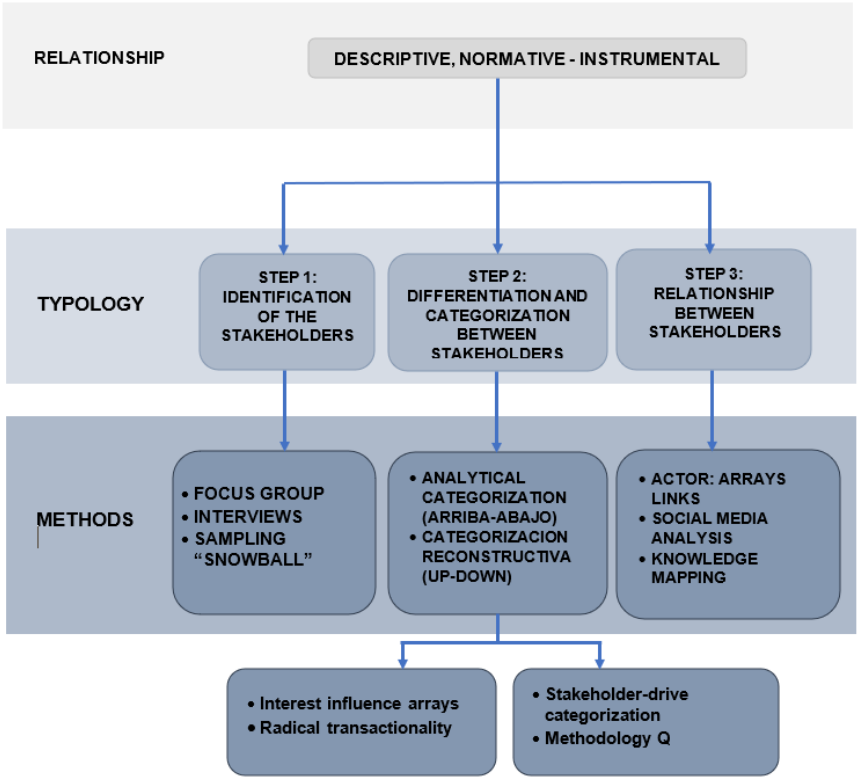
Source: own elaboration, 2021



Source: own elaboration, 2021

a) Upper basin of the Guadalquivir river **b) Micro-basin Milluni**

Figure 3: General procedural scheme for stakeholder analysis in the Guadalquivir and Milluni basins



Source: Own elaboration based on the proposal of Reed et al., (2009).

Figure 4: Schematic representation for stakeholder analysis

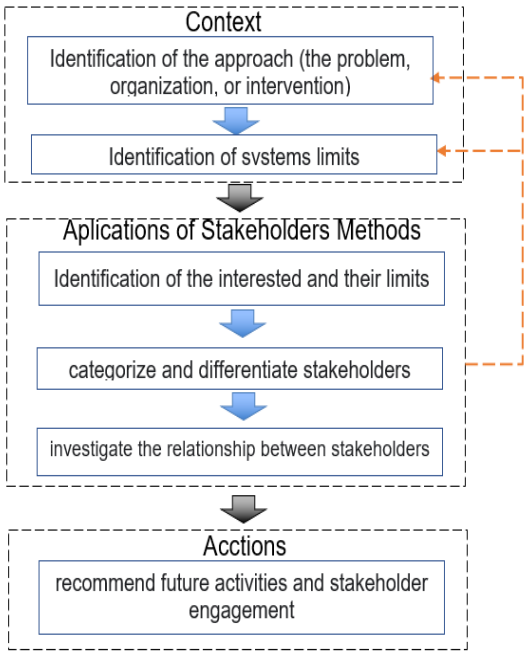


Figure 5: Stakeholder classification matrix according to influence and active importance

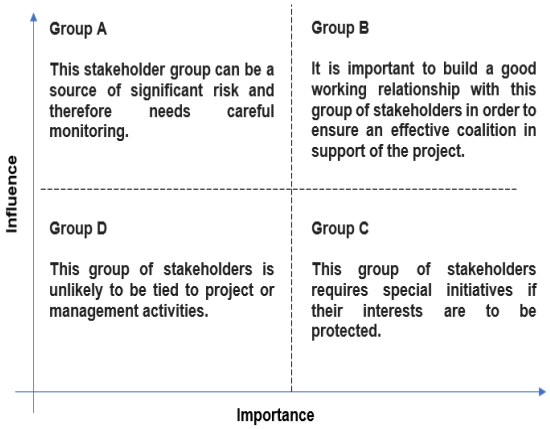
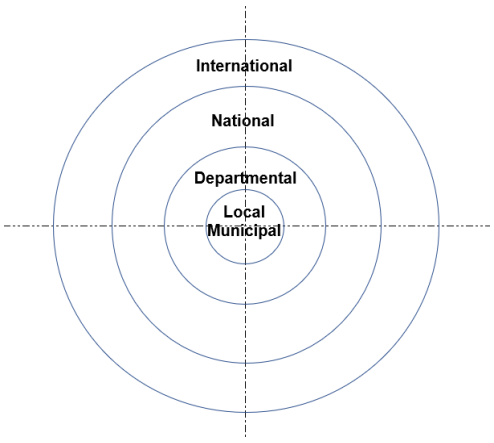


Figure 6: Objective's scheme to identify stakeholders and degree of participation



Source: elaborated based on Lupo, P. (2010) and the proposals of, ODA (1995a, b) and Grimble & Wellard, (1997), EC, (2003), Aggens, (1998), exposed in the project of Lupo, P. (2010)

3.2.1. Identification stakeholders and their interests

Reed et al. (2009) highlights what is proposed by Clarkson, (1994, 1995) indicating that the identification of stakeholders is usually an iterative and easy process, in which additional stakeholders are added as the analysis continues. For example, using expert opinions, focus groups, interviews, snowball sampling, or a combination of these. However, there is a risk that some stakeholders are accidentally bypassed, resulting in not all relevant stakeholders of the phenomenon being identified. Clarke and Clegg, 1998, indicate that it is often possible to include all interested parties and that a line of

responsibilities and interests must be drawn at some point based on well-founded criteria such as geographical, demographic, political, and even nationality criteria, age, etc.

3.2.2. Stakeholders' classification and differentiation

Lupo, P. (2010) exposes the taxonomy proposed by Mitchell, et al. (1997) that classifies latent, expectant, and definitive actors, obtained by assigning attributes. The ***Power*** that is defined as the past and present influence that the interested parties have around the project at the national, departmental, or local level, be it in the project design or execution stage. The ***legitimacy***, when the claims, requests, steps, or interest that the interested parties have in the project are adequate, appropriate, and eligible within the social and political system. ***Urgency***, defined as the extent to which an interested party is active and can demonstrate its effort, management and requests with the greatest urgency and request immediate attention in the implementation of the project. The ***proximity*** that allows to measure the state, the quality, or the fact of being close to or close to the project intervention area.

On this procedure, Coplin et al. (1998), proposes a scale of values to be established for each interested party based on the attributes established by the evaluated, where 1 is the lowest and 5 the highest of the attributed scales, table 2 and table 3 illustrate the classification according to the attribute scale and the interest and relationship between them.

Table 2: Model for the classification of parts using attribute scales

Stakeholder	Power	Legitimacy	Urgency	Proximity	Final stopover	Classification	Intervention

Source: Proposal of Lupo, P. (2010) y Mitchell, et al (1997).

The scores awarded to each stakeholder should be objective based primarily on the power, interest and influence they may have in the execution of the project. Lupo, P. (2010), recommends that those interested parties whose average score for each attribute exceeds or equal to 3 is considered high, while less than 3 is considered low. When Stakeholders have all attributes with a score of 3 or higher, they are classified as ***definitive stakeholders***, on the contrary, when it is observed that Stakeholders have a single attribute or none with scores equal to or greater than 3 points, they will be classified as ***latent***. However, all those interested parties that are in an average position, that is, between 2 to 3 attributes with scores of 3 points or more, will be classified as ***expectant***.

The adequate degree of participation of the stakeholders classified as **definitive** will have an intervention defined as ***"collaborative - collaborate"***, because these actors have a lot of power, legitimacy, urgency and are close to the catchment area; in other words, they are the most important stakeholders and must be involved at the highest level. Stakeholders classified as **expectants** will have a ***"Thought"*** intervention which means that these stakeholders should be consulted in order to obtain useful information and opinions. For those with **latent** classification, it will have a ***"knowledge"*** only intervention, which means that the interested parties should only be informed (Lupo Stanghellini and Collentine, 2008).

3.2.3. Relationship between stakeholders

A common method that allows describing the interrelationships of the interested parties is through the linking matrix described in figure 5 and proposed by ODA, (1995a, b), Grimble & Wellard, (1997), Biggs and Matsaert, (1999) and Lupo, P. (2010), where the stakeholders are listed in the rows and columns according to the model in table 3, creating a grid so that the interrelationships can be described using keywords.

Tabla 3: Interés-Influencia y relacionamiento entre partes interesadas- Guadalquivir

Stakeholder	Interest / Bet	Influence on water use	Perception and approach to the project	Key relationship with other stakeholders	Contact charges

Source: Proposal of Lupo, P. (2010) y Mitchell, et al (1997).

4. Results and discussion: Application of the stakeholder's analysis in the study basins

The bodies and institutions related to water management and management in Tarija and La Paz were analyzed in order to identify and classify all stakeholders in the watersheds and define them as involved in the project. For this purpose, the methodologies proposed by Lupo were applied. P. (2010) and Reed et al. (2009), whose methods have been developed for water management at the basin level, Table 4 details this identification.

Table 4: Stakeholder's identification

Levels	Upper basins of the Guadalquivir basin	Micro basin Milluni
International	Institutions such as the BID, BM, SNV, etc.: **Non-Governmental Organizations (ONG's),** which operate in Bolivia and in the departments, are considered as international organizations, but they can also be identified as departmental entities.	
National	● The Plurinational Legislative Assembly: whose authority to dictate national laws can play a fundamental role in certain legislations of the project: **ALN** ● Ministry of the Environment and Water (MMAyA) of which the following Vice-ministries that have intervention in the project are part: o Vice Ministry of Drinking Water and Basic Sanitation: **VAPSB** o Vice Ministry of Water Resources and Irrigation: **VRHR** o Vice Ministry of Environment Biodiversity Climate Change and Forest Development Management: **VMABCCGDF** ● Authority for the Supervision and Social Control of Drinking Water and Basic Sanitation: **AAPS.** ● For the upper Guadalquivir basin, there is a basin with the National Technical Office for the Pilcomayo and Bermejo rivers - **OTNPB**, it is a national body that operates only in Tarija and is in charge of the management of the international basins of the Bermejo where the Guadalquivir is part. however, it can also be identified as a departmental instance. ● For Milluni Ministry of Mining and Metallurgy **MMM**	

Departamental	The Departmental Legislative Assemblies, which can generate departmental norms around the Project: **ALD**	
	Autonomous Departmental Governments through their area secretaries **GAD**	
	Departmental Service for Comprehensive Water Management - **SEDEGIA**	Public Social Water and Sanitation Company-**EPSAS**
	● University Juan Misael Saracho **UAJMS** ● University Universidad Católica Boliviana **UCB**	● University Mayor de San Andrés **UMSA** ● University Universidad Católica Boliviana **UCB** ● University Pública de El Alto **UPEA**
	● The Federations of Neighborhood Councils, **FEDJUVE** ● The construction cameras, **CADECO** ● The cameras of industry and commerce ● Societies and professional associations such as the Bolivian Society of Engineers **SIB**, the College of Civil Engineers **CICT y CICLP**, and the Society for Sanitary and Environmental Engineering **ABIS** ● In the case of Tarija, the civic committees of Tarija and San Lorenzo ● In the case of Milluni, the Management Unit of the Katari **UGCK** Basin and the Master Plan of the Katari Basin and Lago Menor del Titicaca **PDCKyLMT**	
Local	● The Municipal Governments of Tarija and San Lorenzo **GMT y GMSL** ● The **COSAALT** Water and Sanitation Cooperative of the municipality of Tarija and the San Lorenzo water service operator ● Neighborhood directives ● Peasant communities	● The Municipal Governments of La Paz, El Alto y Laja **GMLP, GAMEA, GML** ● Mining cooperatives ● Neighborhood directives ● Peasant communities

Source: own elaboration, 2021

From the table above it can be seen that the interested parties for both basins are the same at the International and National level. However, at the departmental and local level, each basin has its own public and private entities. Denoting that both basins have the same number of stakeholders, despite the fact that the Milluni micro-basin is significantly smaller than the Alta del Guadalquivir basin. This is because both belong to strategic basins in Bolivia, which comprise an already structured management structure.

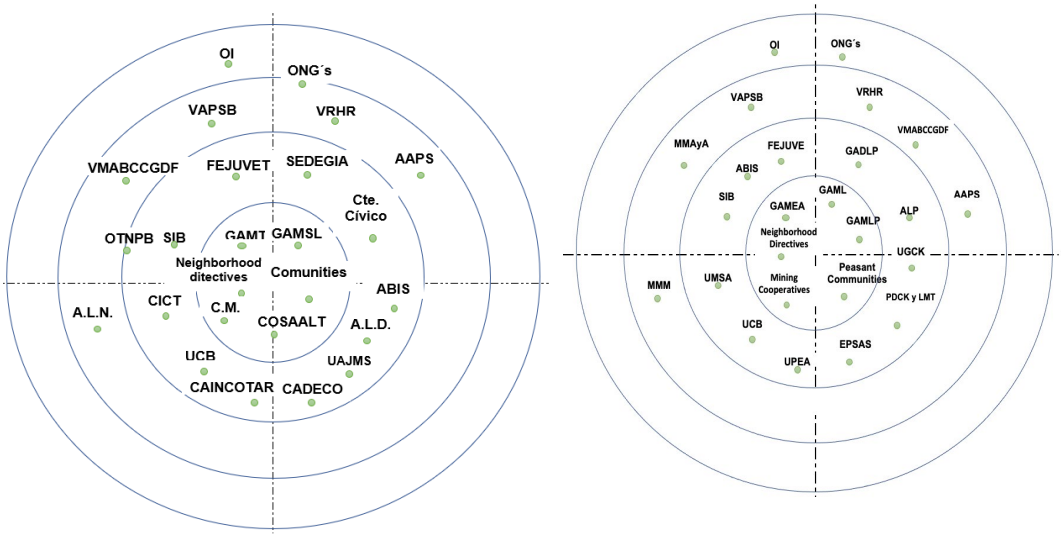
Figures 7a and 7b show the stakeholder ordering system for the study basins, identifying the groups according to the geographic scope of participation.

4.2. Stakeholders' classification and analysis

Figures 8 and 9 show the stakeholder identification matrices based on the minimum, medium and maximum level of influence and interest for both basins. Figures 10 and 11 show the interest groups for both study areas.

9 interest groups are identified for the Guadalquivir basin, the FEJUVE and the municipal governments represent the stakeholders with the greatest influence and interest in the project. The vice-ministries and the national, departmental, and local legislative assemblies, although they have a high influence, do not have a greater particular interest in the project. However, civil societies such as professional associations, the civic committee, and private entities such as chambers of commerce and construction are those that have the least influence but show a high commercial interest in the project. At a medium level are service companies such as COSAALT, departmental secretariats such as SEDEGIA and ONGs, the OTNPB and peasant communities, which show a high interest in the project, but the influence on it is medium. Universities play a technical advisory role whose participation is sporadic.

Figure 7: Stakeholder identification using the orbits approach



a) Guadalquivir Basin **b) Micro-basin Milluni**

Source: own elaboration, 2021

The same analysis of the Guadalquivir basin was carried out for the Milluni micro-basin. The main differences are found in the location of the neighborhood directives and the peasant communities. In Milluni, the former has a high influence on the uses of water, but they present low interest in the projects, because they do not live in the place, but they do use it to carry out their economic activities. It can also be seen that the three universities (UMSA, UPEA and UCB), are part of the technical committee, have a moderate interest and participation. At the point of greatest interest and influence, are the UGCK, the management unit of the strategic Katari basin that includes Milluni.

Once the interested parties are identified, they are classified into 4 groups according to their power and interest in the project. Group A includes private entities such as the Chambers of construction and those of industry and commerce, professional associations and NGOs that do not have any decision-making power in the project, but a high commercial interest in them, on the other hand, the service companies, the FEJUVE's and the neighborhoods, have an important interest in the execution of the project, but the level of power is relatively low.

Group B, made up of the municipal governments and the governorate, show high decision-making power and interest, while group C, made up of the Vice-ministries of the area and the peasant communities where the water sources are located, do not show high interest. but the power of decision is high.

Finally, we have group D, whose interest and power are low, this because they are mainly made up of academic and regulatory bodies

The classification of the actors is based on the scales of attributes according to power, legitimacy, urgency and proximity to the project for both basins under study.

The ministries, vice ministries, governorates and municipalities have a definitive participation in the project and a collaborative intervention, in the same way the legislative bodies at the national, departmental, and local levels must participate actively and definitively since this type of project may require special legislation. for its implementation. However, the peasant communities have a definite participation because the sources are located in their territories, their intervention is only of knowledge and not of collaboration.

Figure 8: Stakeholder identification and classification matrix by level of interest and influence – Guadalquivir

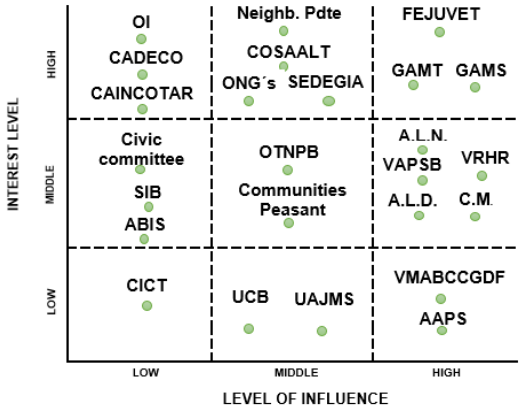
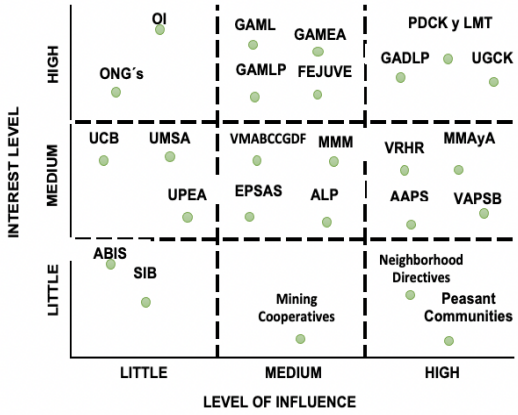


Figure 9: Stakeholder identification and classification matrix by level of interest and influence - Milluni



Source: own elaboration, 2021

In the other group, there are other executive instances of the national executive level, such as the vice-ministry of the environment and that of basic sanitation, who have an expectant participation in the face of the need for their intervention or knowledge, in the same way. Although the service companies are the most interested in having the projects executed, they can only have an expectant participation.

Finally, we have the third group with latent participation, such as private and academic entities whose attribution is at the micro-basin level and cannot directly intervene in the project.

4.3. Relationship and interrelation of stakeholders with the project

For the qualitative analysis, interviews were conducted, social networks and information from the press media and information obtained from public institutions such as governors, service companies, municipal governments, etc. were used. The interviews

were carried out in a flexible way, which has allowed the interviewee to respond in the order and in the way they choose, open questions were asked focused on key aspects such as water resources, contamination of water from supply sources, water supply systems. water treatment such as reverse osmosis and other issues related to the institutionality in the department, water management, responsible institutions and economic resources allocated to this sector.

Figure 10: Classification matrix by interest and power of stakeholders - Guadalquivir

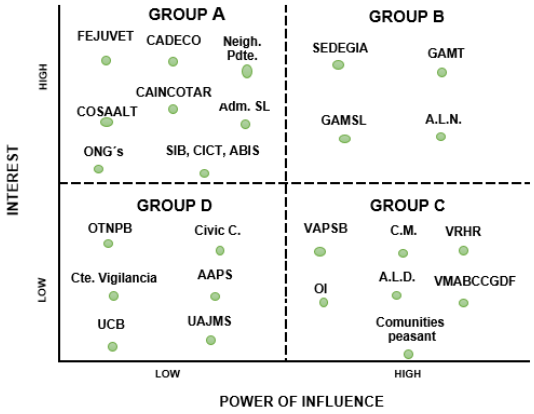
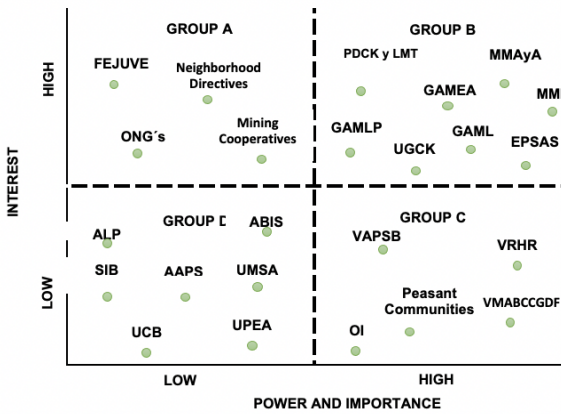


Figure 11: Classification matrix by interest and power of stakeholders - Milluni



Source: own elaboration, 2021

The interrelation of the work between the interested parties allows the elaboration of collaborative work strategies to achieve the implementation of the project in the best possible way, avoiding social, political and economic problems

The interrelation or the relationship between the interested parties, allows to identify the groups that are formed between the interested parties that in many cases can be beneficial for the project, but in some cases can be detrimental to the project, especially considering the interest groups political and economic.

The relationship between the levels of Departmental and Local Government with the National is necessary and imperative, considering the competences that each one has and the allocation of economic resources, by the constitution of the national executive through the Ministry of Environment and Water and its vice ministries They have the authority and competence to intervene in projects related to water resources, which requires that governments and municipalities work in a coordinated manner with this national body, not only for the eventual approval of the project but also for the allocation of economic resources.

At the departmental and local level, the federation of neighborhood councils-FEJUVE, the neighborhoods and their boards, and the water and sanitation cooperative, is identified as an important correlation of interests group. On the one hand, it is the responsibility of the neighborhood councils to inspect and manage social projects. On the other hand, the cooperative requires investments to ensure its profitability in the concession area.

Private entities such as chambers of construction and industry and engineering associations have a natural commercial interest, which has allowed them to be grouped into a group of correlation of interests.

It is important to note that, by the Bolivian constitution, every project must have a consultation process with the peasant communities where the water sources are located, for which the departmental and municipal public entities must be linked and related to these peasant entities.

Finally, the legislative bodies have a very important political weight, so any executive instance must have a direct relationship with parliamentarians and legislators for the management and processing of regulations regarding the project.

5. Conclusions

The methods of analysis in accordance with current legislation, as well as the Bolivian experience of the last decades have made it possible to identify, classify and relate the different actors involved in the management and implementation of projects related to the management of water resources and the influence they have on them. However, the political and cultural differences of each region require a particular analysis.

About 50 stakeholders were identified (25 for each basin), while public institutions such as the central departmental and municipal governments have the power to define, the civil society represented by neighborhoods and peasant communities exercise social control and influence over the decision making. For their part, professional societies, universities, and private civic institutions play a fundamental role in providing technical advice in the definition of projects.

A group of purely private actors with natural commercial interests was identified that will have an important participation in the execution of the project that must be considered during the negotiations. International financing organizations such as the IDB, the World Bank or NGOs that operate in the country have their own design, bidding, and execution regulations, so there must be adequate coordination with public institutions for project management.

The neighborhood councils and peasant communities, through their legally established authorities, have a key participation in the definitions of the projects, the decision to execute a project or locate a certain work in a neighborhood, area or rural / peasant territory, will require the approval and acceptance of the same, for which the link and relationship with these instances must be continuous and definitive, adequately and timely informing the technical decisions made in the project.

References

Aggens, L. (1998). Identifying different levels of public interest in participation. In Public Involvement Techniques: A Reader of Ten Years' Experience at the Institute for Water Resources, prepared by Creighton, J. L., Delli Priscoli, J. & Dunning, C. M.IWR-USACE, Alexandria, Virginia, IWR Research Report 82_R-1, http://www.iwr.usace.army.mil/inside/products/pub/pubsearchAll.cfm?alpha¼P

Biggs, S., Matsaert, H., 1999. An actor-orientated approach for strengthening research and development capabilities in natural resource systems. Public Administration and Development 19, 231–262.

Coplin, W. D., McMaster, D. J. & O'Learly, M. K. (1998). Creating policy profile. In Public Involvement Techniques: A Reader of Ten Years' Experience at the Institute for Water Resources, prepared by Creighton, J. L., Delli Priscoli, J. & Dunning, C. M. IWR-USACE, Alexandria, Virginia, IWR Research Report 82_R-1, http://www.iwr.usace.army.mil/inside/products/pub/pubsearchAll.cfm?alpha¼P.

Clarke, T., Clegg, S., 1998. Changing Paradigms: the Transformation of Management Knowledge for the 21st Century. Harper Collins, London.

Clarkson, M. B. E. (1994). A risk-based model of stakeholder theory. Proceedings of the Second Toronto Conference on Stakeholder Theory, Toronto, Centre for Corporate Social Performance & Ethics, University of Toronto.

Clarkson, M.B.E., 1995. A stakeholder framework for analyzing and evaluating corporate social performance. Academy of Management Review 20, 65–91.

Dourojeanni, A., Jouravlev, A., (2001). Crisis de gobernabilidad en la gestión del agua. *Recursos naturales e infraestructura-CEPAL.* Chile: Naciones Unidas.

European Commission [EC] (2003). Common Implementation Strategy for the Water framework Directive (2000/60/CE) - Guidance Document n. 8. http://www.europa.eu.int/comm/environment/water/water-framework/index_en.html

Freeman, R. Edward (1984). Strategic management: A stakeholder approach. Boston: Pitman Publishing, Inc.

Gobernación del departamento de Tarija, 2013. Plan Departamental del Agua, Tarija-Bolivia

Grimble, R. & Wellard, K. (1997). Stakeholder methodologies in natural resource management: a review of principles, context, experiences and opportunities. Agricultural Systems, 55(2), 173–193.

Jacobs, M. H., and A. E. Buijs (2011), Understanding stakeholders' attitudes toward water management interventions: Role of place meanings, Water Resour. Res., 47, W01503, doi:10.1029/2009WR008366

Lupo, P. (2010). Stakeholder involvement in water management: the role of the stakeholder analysis within participatory processes. *Water Policy*. 12, 675-694

Lupo S. & Collentine, D. (2008). Stakeholder discourse and water management – implementation of the participatory model CATCH in a Northern Italian alpine sub-catchment. Hydrology and Earth System Sciences, 12,317–331.

Mayers, J. (2005). Análisis del poder de las partes interesadas. International Institute for Environment and Development.

Mitchell, R. K., Agle, B. R. & Wood, D. J. (1997). Toward a theory of stakeholder identification and salience: the principle of who and what really counts. Academy of Management Review, 22(4), 853–886.

Ministerio de Medio Ambiente y Agua. (2015). Plan Nacional de Cuencas Balance Hídrico Superficial de la Cuenca del Guadalquivir. La Paz.

Overseas Development Administration (1995a). Guidance Note on How to Do Stakeholder Analysis of Aid Projects and Programmes. www.euforic.org/gb/stake1.htm

Overseas Development Administration (1995b). Note on Enhancing Stakeholder Participation in Aid Activities. www.euforic.org/gb/stake2.htm

Pahl-Wostl, C. (2007). The implications of complexity for integrated resources management. *Enviornmental Modelling and Software*. 22, 561-569.

Reed, M., Graves, A., Dandy, N., Póstumo, H., Hubacek, K., Morris, J., Prelle, C., Quienn, C. & Stringerb L. (2009). Who's in and why? A typology of stakeholder analysis methods for natural resource management. Journal of Environmental Management. 90, 1933-1949. https://doi.org/10.1016/j.jenvman.2009.01.001

Roger, P. & Hall, A. (2003). Effective Water Governance. Global Water Partnership Technical Committee (TEC)

Trawick, P. (2003). Against the privatization of water: An indigenous model for improving existing laws and successfully governing the commons. World Development, 31, 977–996. doi:10.1016/S0305-750X(03)00049-4

Yang, L., Shun-Chan, F. and Scheffran Y. (2016). Climate change, water management and stakeholder analysis in the Dongjiang River basin in South China. International Journal of Water Resources Development. 34:2, 166-191, DOI: 10.1080/07900627.2016.1264294

Water Governance Facility (2011). Programa de las Naciones Unidas. Obtenido de: https://www.watergovernance.org/water-governance/

Comunicación alineada con los Objetivos de Desarrollo Sostenible