

An application of the UN-HABITAT Urban Governance Index (UGI): water supplies in a low-income community of the Caracas Metropolitan Region

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Abstract: This paper addresses the overall issue of urban governance measurement and, more broadly, of urban governance definition amongst international aid agencies, with a specific focus on the UN-Habitat ‘Urban Governance Index’ (UGI).

The strong pressure towards urban governance reforms by international aid agencies has entailed the necessity to assess and monitor the implementation of these urban management changes – mainly, but not exclusively, to condition aid financial support. As a result, a great production of indexes and indicators related to governance policies and strategies is currently being developed, also in the urban sector, reflecting different approaches amongst international aid agencies.

In order to contribute to the debate about the definition - and measurement - of urban governance in developing countries, the paper briefly reviews the main basic assumptions characterising different urban governance measurement instruments developed by international aid agencies, on one hand, and verify the applicability of the UN-Habitat UGI to governance arrangements locally developed to organise water supplies in the Caracas Metropolitan Region, on the other hand.

It is concluded that the ‘Urban Governance Index’, in contrast with other tools, avoids a strictly oriented focus on economic performance indicators and represents, on the contrary, a high valuable instrument to address the issues of inclusiveness and citizenship. Furthermore, the field application demonstrates that the UGI is not a mere collection of quantitative data but, thanks to its clear and flexible framework, it can be adapted and applied to the very specific contexts of low-income settlements providing quantitative, as much, qualitative information.

1. introduction

Can international aid ideologies and policies on urban governance help investigating and explaining new local governance systems to improve access to basic services? In particular, can urban governance measurement instruments defined by international aid agencies be applied to the new emerging urban governance arrangements taking place in some cities of developing countries? This paper aims at presenting a possible methodological pattern to verify the applicability of an urban governance measurement framework¹ (the UN-HABITAT Urban Governance Index) to a new locally-developed governance arrangement to improve access to water supply (the case of the low-income community Hacienda el Carmen in the Metropolitan Region of Caracas). The overall objective is to assess whether and how such framework can help in investigating and explaining local governance arrangements developed to improve access to urban water services and, in turn, be relevant in terms of policy making to improve local governance.

The argument is organised as it follows. Section 2 introduces the question related to urban governance measurements, outlining two different approaches belonging to as many international aid agencies. The following section describes more in detail the UN-HABITAT Urban Governance Index, while Section 4 presents its tentative application to the case study of water access in a low-income community in the periphery of Caracas.

¹ The applicability of a model or framework is a concept generally used in the field of exact sciences and quantitative research but at the same level, by extension, also in the domain of human and social sciences and research on qualitative information. Yet, it can be asserted that – regardless to the specific science domain – the general basic condition concerning the applicability of a model/framework rests on the correspondence between its hypothesis and the specific application premises. Out of example, the EPA (1993) states that ‘the applicability of a model depends on the adequacy of its basic underlying assumptions’.

Finally, it is worth highlighting that this paper is presenting just some preliminary findings of a doctoral research concerning the investigation of local governance arrangements in the Metropolitan Region of Caracas based on the framework of the UN-HABITAT Urban Governance Index.

2. Measuring Urban Governance: two different approaches

The main international aid agencies suggest and support different approaches to urban governance, revealing from time to time different underlying rationales to the wider concept of governance (Stoquart, 2000; Environment & Urbanization, 2000; Manchotte, 2000; Nunan and Satterthwaite, 2001; Balbo, 2002a; Degnbol-Martinussen and also Engberg-Pedersen, 2003; Miegville *et al.*, 2003; Osmont, 2002; McGranahan and Satterthwaite, 2006). At the same time, at a more operational level, these aid agencies translate the concept of governance into different models or frameworks to assess and measure the existing governance conditions and its possible variations, and to promote action to improve them.

The central problem of governance measurement in the wider governance discourse is witnessed by the huge production of governance tools of measure amongst multilateral organisations². Nevertheless, very few of these measurement instruments take explicitly into account the urban dimension of this notion focusing, on the contrary, on governance at the country level and on international comparisons of state performance. Stewart (2006) suggests that a major reason for this lack of efforts to address good governance at the city level can probably rest on the difficulties related to the data collection process and he points out two ambitious attempts to cope with this shortcoming: the World Bank database concerning globalisation, city governance and city performance (Kaufmann *et al.*, 2004) and the UN-HABITAT Urban Governance Index (UN-HABITAT, 2004) – currently under construction within the UN-HABITAT's Global Campaign on Good Urban Governance.

The World Bank database aims at exploring whether globalisation matters for sound urban governance and, in turn, whether globalisation and sound urban governance affect positively city performance. The investigation concludes that governance and globalisation are strictly related and that they impact positively on city performance; urban performance is considered as an output of national economic performance within globalisation while 'improving governance at the city level allows cities to translate global opportunity into local value for their citizens' (Kaufmann *et al.*, 2004:38). In particular, this exploration has been developed covering 412 cities worldwide and relying on 35 variables and indicators belonging to other existing databases³. To measure city governance, Kaufmann *et al.* (2004:25) focus on 'whether a city is providing services to citizens (low health access gap) and whether it has a well functioning public sector with low bribery in taxes or in the provision of utilities'. In particular, the selection of the city governance determinants focuses on those which can inform about the positive link between urban governance and performance of global cities. This reflects the precise Bank database's objective that is to 'investigate empirically what determines the staying power of cities of their performance on a global scale, and whether governance has anything to do it (Kaufmann *et al.*, 2004:4).

² For a wide inventory of governance measurement instruments, see UNDP and Eurostat Unit F4, 2005, *Governance Indicators: A Users' Guide*, which provides an overview of 33 systems to assess country governance level and quality.

³ The data sources of the World Bank database rely on UN observatory, EOS database, Taylor database, KLM database. For further details, see Kaufmann *et al.*, 2004. Selected indicators are: Bribery in Utilities, Informal Money Laundering, Street Crime, Red Tape Cost of Imports, Bribery to affect laws, Diversion Public Funds, Illegal Party Financing, Bribery in Permits, Low Bribery in Tax, Soundness of Banks, Trust in Politicians, Organised crime, Quality of Postal System, Health access gap.

The Urban Governance Index (UGI) has been developed ‘in order to enable cities to objectively measure the quality of local governance’ (Narang, 2005:1) through a core set of 18 indicators or 25 short-listed indicators (UN-HABITAT, 2004c; see also Annex 1). According to UN-HABITAT, the objectives of UGI are two-folds: at a global level it aims ‘to demonstrate the importance of good urban governance in achieving broad development objectives’, while at the local level ‘the index is expected to catalyze local action to improve the quality of urban governance by developing indicators that respond directly to their unique contexts and needs’ (UN-HABITAT, 2004b:11). The UN-HABITAT Index – belonging to the UN-HABITAT Global Campaign on Urban Governance activities – has the overall purpose to make a contribution to the eradication of poverty, strengthening and improving urban governance. Contrary to the World Bank database, the selection of the UGI indicators is carried out according to the principle of inclusiveness (Narang, 2005) in the broader urban development processes, counting access to urban services and participation in decision-making mechanisms. Therefore, the UGI focuses on the assessment of specific local governance arrangements – formal as well informal – with regard to their capacity to be inclusive in a broad sense, regardless of their relationships with globalisation processes at the city level.

As it has briefly been presented in the introduction and as it will be described further in the section 4, the specific case analysed in this paper focuses on how a local governance arrangement developed through formal and informal relationships amongst a municipality, a water company and a low-income community belonging to the Metropolitan Region of Caracas has improved the access to urban water supply and, in turn, enhanced a broader urban development process. Conversely, it does not focus on how this local governance arrangement experiences the pressures and the outcomes of globalisation and, in turn, enhance city performance at a global level. For this reason, the UN-HABITAT UGI is chosen as the ‘urban governance framework’ of reference to verify its applicability to the specific case of this local governance arrangement developed in the Caracas Metropolitan Region (CMR) to improve urban water supplies. In particular, this tentative application rests on the hypothesis that the UGI basic principles and underlying assumptions are consistent with the main values underpinning the selected urban governance arrangement for water access in Caracas, which are those of inclusiveness, participation and citizenship at the local level – amongst others.

However, in verifying the applicability of the UGI to the selected case study, it is of utmost importance to point out a fundamental observation: the purpose of this analysis is not to merely evaluate in a quantitative way the performance and quality of local urban governance arrangements for water access. It is rather to investigate the correspondence between the basic assumptions of the UGI ‘urban governance framework’ and the selected case of urban water supplies in Caracas, and uncovering and exploring – on the basis of the Index principles – the specific and particular elements characterising this local urban governance arrangement to improve water supply provision in the CMR.

3. The Urban Governance index (UGI)

The UGI is one of the ‘flagship products’ of the UN-HABITAT Global Campaign on Urban Governance. The Campaign, launched in 1999, has the objective to make a contribution to the eradication of poverty, strengthening and improving urban governance. In order to achieve this goal, the Campaign’s theme – that is, its underlying assumption or cross-cutting principle – focuses on the notion of ‘inclusiveness’ and its corresponding vision to realise the ‘Inclusive City’: ‘a place where everyone, regardless of wealth, gender, age, race and religion, is enabled to participate productively and positively in the opportunities cities

have to offer. Inclusive decision-making processes are an essential means to achieve this and are the cornerstone of the Campaign.’ (UN-HABITAT, 2002:3). In the context of the UN-HABITAT Global Campaign on Urban Governance, the UGI has been developed in order to make a contribution to the Campaign’s advocacy and capacity-building strategies.

The UGI overall organising structure rests on the ‘Five Core Principles of Good Urban Governance’, based on the seven principles characterizing the rationale behind the Global Campaign on Urban Governance, but also on the norms and principles shared by the Agencies within the UN system (UN-HABITAT Global Campaign on Urban Governance, 2001). These five core principles have been eventually selected on the basis of their simplicity and clearness in expressing governance key concepts and on the basis of their relevance to the cross-cutting principle of inclusiveness.

In particular, according to UN-HABITAT (2004), the choice of these principles could be linked to Amartya Sen’s five measures of freedom (Sen, 1999) where each principle may be used to evaluate or assess these freedoms. As a matter of fact, this relationship rests on ‘the more *inclusive* idea of capability deprivation’ as a barrier to poverty understanding and development realisation, rather than the ‘*exclusive* concentration on income poverty’ (Sen, 1999:20, emphasis added). Consequently, urban governance core principles and Sen’s instrumental freedoms⁴ can be related as follow: *Effectiveness* for Economic Facilities, *Equity* for Social Opportunities, *Participation* for Political Freedom, *Accountability* for Transparency Guarantees and *Security* for Protective Security. In the context of the UGI development, UN-

Box 1.: THE UN-HABITAT URBAN GOVERNANCE INDEX: main features

1. Purposes:

The UGI has a double purpose: at a *global level* it aims ‘to demonstrate the importance of good urban governance in achieving broad development objectives’, while at the *local level* ‘the index is expected to catalyze local action to improve the quality of urban governance by developing indicators that respond directly to their unique contexts and needs’.

2. Focus:

The UGI intends measuring urban governance focusing on ‘mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meets their obligations and mediate their differences’. In particular, it gives ‘emphasis on the quality of relationships and processes between key stakeholders at the local level’.

3. Principles

The initial 5 principles chosen as the framework of the Urban Governance Index have been based on the 5 measures of freedom of Amartya Sen, linking *Effectiveness* with Economic Facilities, *Equity* with Social Opportunities, *Participation* with Political Freedom, *Accountability* with Transparency Guarantees and *Security* with Protective Security. Eventually, the security principle was not recommended to be part of the Index because of its weak representation with regards to the selected evaluation criteria.

4. Indicators:

Urban Governance Indicators have been chosen according to the 4 basic principles listed above. The final set of UGI indicators consists of 25 indicators short-listed – including the 18 core set of indicators – chosen against the criteria of *ease of collection, universality, relevance* and *credibility*. These indicators have been selected through UN expert group meetings and are characterised by the following features (UN-HABITAT, 2004a; Narang, 2005):

- UGI indicators focus on the process of decision-making (e.g. involvement of civil society in a formal participatory planning and budgeting process before undertaking investment in basic services) rather than on inputs, outputs or outcomes of these processes.
- They intend to be credible and robust in order to properly measure the quality of governance and to be sufficiently universal to enable comparison.
- They try to tackle both the issues of universality and contextualisation. According to this purpose, UN-HABITAT proposes as a useful approach identifying ‘core’ indicators relevant across different countries and context and ‘satellite’ indicators specifically suited to each country’s particular context.
- Indicators should allow stakeholder participation and local ownership in the data collection process and in the following application of these indicators to the decision-making process.
- UGI indicators focus on quantitative data collected at the city level, even if qualitative information is considered important to complement the core set of quantitative indicators.
- In addition, UGI indicators have been selected trying to disaggregate national/sub-national indicators from the local ones. This has been done in order to take into account urban governance issues at the national level but also at the local one that is the closest level to citizens.

Source: UN-HABITAT, 2004a, 2004b, 2004c; Narang, 2005.

HABITAT re-formulated these five core principles to work out a measurable definition that could allow and justify the selection of urban governance indicators linking policy objectives and governance principles⁵. Eventually, only four of these five principles were recommended to be part of the Index⁶. These principles – in their re-formulation for the Urban Governance Index – are presented in box 1, box 1 provides a more technical and detailed description of the UGI main features, illustrating its purposes, structure and methodological development process.

4. How the UGI has been applied to investigate a new local governance arrangement in Caracas

A recently academic research project funded by the DFID and coordinated by the Development Planning Unit, University College London⁷, explored the formal and informal governance arrangements in the peri-urban interface of five metropolitan areas, including Caracas. The finding of this investigation reveals that an interesting new and alternative form of urban governance in the access to water and sanitation services (WSS) has been developing in Venezuela and, in particular, in the peri-urban areas of Caracas (Cariola and Lacabana, 2004a). This governance model is based on local partnerships amongst municipalities, the state-owned water company and low-income communities belonging to the Metropolitan Region of Caracas and developed through both formal and informal arrangements in order to improve access to urban water supply.

According to Cariola and Lacabana (2004b), the new urban governance approach to WSS in the CMR is not exclusively representing a solution for the technical problem of urban water access, but it is entailing the construction of a new sense of citizenship based on the sharing of rights and responsibilities amongst the various stakeholders involved in this process, on a renew trust in the institutions and on an innovative communication and coordination amongst

Box 2.: UN-HABITAT URBAN GOVERNANCE INDEX: basic four principles	
1. Effectiveness: Including: efficiency, subsidiarity and strategic vision	<i>“Effectiveness of governance measures the exiting mechanisms and the socio-political environment for institutional efficiency (through subsidiarity and effective predictability) in financial management and planning, delivery of services and response to civil society concerns”. (ibid:21)</i>
2. Equity: Including: sustainability, gender equality and intergenerational equity	<i>“Equity implies inclusiveness with unbiased access (be it for economically weaker sections, women, children or elderly, religious or ethnic minorities or the physically disabled) to basic necessities (nutrition, education, employment and livelihood, health care, shelter, safe drinking water, sanitation and others) of urban life, with institutional priorities focusing on pro-poor policies and an established mechanism for responding to the basic services.” (ibid:22)</i>
3. Participation: Including: citizenship, consensus orientation and civic engagement	<i>“Participation in governance implies mechanisms that promote strong local representative democracies through inclusive, free and fair municipal elections. It also includes participatory decision-making processes, where the civic capital, especially of the poor is recognized and there exists consensus orientation and citizenship”. (ibid:23)</i>
4. Accountability: Including: transparency, rule of law and responsiveness	<i>“Mechanisms are present and effective for transparency in the operational functions of the local government; responsiveness towards the higher level of the local government; local population and civic grievances; standards for professional and personal integrity and rule of law and public policies are applied in transparent and predictable manner”. (ibid:21)</i>
Source: UN-HABITAT, 2004a.	

⁵ See Annex 1 for the complete list of UGI indicators.

⁶ The Five Core Principles of Good Urban Governance were initially recommended to be adopted in the Urban Governance Index (see UN-HABITAT, 2004a). Nevertheless, after the second Field Test Report, the *security* principle was not recommended to be part of the Index because of its weak representation with regards to the selected evaluation criteria (UN-HABITAT, 2004a).

⁷ This project is titled “*Service provision governance in the peri-urban interface of metropolitan areas*”.

these actors. Furthermore, these authors highlight how the new system of more participative democracy in the issue of urban water has been developing ‘outside the influences and changes belonging to globalisation’ (Cariola and Lacabana; 2004b:14).

At the centre of these governance arrangements lies an organisation, a sort of technical water board (*mesa tecnica de agua – MTA*), through which community member can take part at the processes to improve their access to water supplies. The MTA plays a central role in these local governance arrangements as it channels community participation from the survey of water conditions access in their settlement, to the decision, realisation and control of the new project. In that way, the MTA represents the community body charged with the responsibility to link up the efforts of the whole community, the municipality and the Water Company to improve water access.

In this context, the UN-HABITAT UGI has been applied as the urban governance framework of reference to investigate and exploring the specific features characterising a local urban governance arrangement to improve water supply provision, involving a particular low-income community (*Hacienda el Carmen*) in the CMR.

Adapting the UGI at the case study

The tentative application of the UGI to the case study has been organised through a double approach, trying to combine quantitative and qualitative methods. The quantitative aspect of the UGI application aims at working out the urban Governance Index in the municipality where the Hacienda el Carmen is located, using factual data and information and hence at understanding the quality of urban governance at the municipal, formal level. On the contrary, qualitative information is collected in order to explore the informal and community-related side of this governance arrangement. The latter is quite often left to unofficial and locally-based information which, for its nature, is not systematically collected and organised into administrative databases and statistics. As a result, the use of such a combined method has the purpose to get an insight into both the formal and informal dimension and the administrative level as well as the community one of urban governance, without resting exclusively on the information given by formal official data. It is worth highlighting that this choice is also supported by the possibility that the UGI contemplates to complete the core set of quantitative data with qualitative investigation at the local level (UN-HABITAT, 2004a).

It follows from this that, in order to apply the UGI qualitatively and quantitatively, it has appeared first necessary to adapt such Index to the specific context of the research, with respect to three main points⁸. Therefore, the first UGI adaptation is related to the Index level of application and, consequently, its disaggregation at the municipal/local level. Thus, the assessment of the UGI application has focused exclusively on one municipality belonging to the CMR, rather than on the broader metropolitan area. This choice is supported, firstly, by the relevance of the municipal sphere as the closest institutional level to citizens, and thus, as the best place to analyse how the quality of governance affects them (Narang, 2005) and, secondly, by the importance of the municipal level as the one interested by the informal governance arrangements.

The second adaptation concerns the specific focus of this research on urban water supply as an example of basic service around which alternative urban governance arrangements have been developed to guarantee an improved access. In this context, it is worth saying that the

⁸ However, these adaptations are consistent with the UN-HABITAT advice regarding some limitations of the Index that are due to its current work in progress phase: ‘Given the complex nature of governance, it has been difficult to pursue and achieve at the same time our global and local objectives with the index. We encourage you to use the index as presented as a *starting point for local adaptation and development*’ (UN-HABITAT, 2004a:3).

working out of the UGI had preferred a ‘principles framework’ which emphasis ‘the quality of relationships and processes between key stakeholders at the local level’ rather than a framework based on the quality of local government service delivery, according to the idea that the concept of urban governance is wider than the local government performance (UN-HABITAT, 2004a:18). As a result, the tentative application of the UN-HABITAT Index aims at assessing all the UGI indicators adapting those concerning the whole basic services just to the water supply.

Finally, the last adaptation is represented by the experimental revision of the UGI principles in order to work out a qualitative investigation of the local urban governance arrangements in the CMR to improve low-income community access to water supply. The methodological issues underpinning this adaptation are sketchily presented below.

Calculating of the UGI and main issues

According to the previous adaptations, the UGI has been calculated for the municipality of Paz Castillo, where the Hacienda el Carmen is located, and with regard to the water supply service⁹. Apart from few indicators and sub-indicators (notably, indicators numbers 3, 12A, 18, 20Be, 24b, 24c), data have collected quite easily. Data collection has involved the direct consultation of official national statistics elaborated by national state bodies – notably, the *Instituto Nacional de Estadística* and the *Consejo Nacional Electoral* – and generally available through the access at the respective websites, and structured interviews, concerning specific indicators, to public servants working in the local administrations and in the state-owned water company. In that way – according to UN-HABITAT (2004a) recommendations – the quantitative data have been almost always ‘verified through urban experts and urban policy makers involved in the city planning’.

Annex 1 presents the list of UGI indicators adapted to the case study and calculated for the municipality of Paz Castillo. Results from indicators’ data collection are not purposely presented in order to avoid focusing on the UGI calculation for this municipality, without presenting the results of the wider qualitative analysis.

Working out of the qualitative analysis

The qualitative applicability of the UGI framework has been tested in a two step procedure: the former theoretical and the latter practical. First of all, the theoretical applicability of the framework is proved: it means that it has to be verified the possibility to identify and elaborate a set of qualitative queries corresponding to the four core UGI principles and consistent with their adaptation to the local/municipal level and to the issue of urban water access. In the second step, the practical applicability of the UGI framework is tested through the direct exploration of these qualitative queries on the field.

Therefore, in the first phase, each urban governance core principles has been reviewed in order to be operationalised into a qualitative analysis of local governance arrangements to improve urban water access. The focus of the qualitative study is on investigating how and to what extent low-income communities – and their informal practices and relationships – are included in the local governance processes to improve access to water supplies. As a result, the examination concentrates on the role of the MTA in the local arrangements developed to improve access to water supplies in the Hacienda el Carmen, as the central stakeholder in the governance process. In that way, the analysis concentrates mainly on the relationships

⁹ It is important to underline that from the technical point of view of the UGI calculation, it has been decided to assume for the municipal level the same tentative formulae provided by the Index at the city level as a proxy measurement.

between the MTA and the whole community downwards, and between the MTA and the municipality and the Water Company upwards.

Despite the lack of a widespread consensus about the meaning of the four UN-HABITAT urban governance principles in literature¹⁰, the UN-HABITAT perspective with regard these concepts and the quantitative UGI indicators were taken as the guiding standpoint to develop and decline them in the case study analysis. At the same time, selected literature on these concepts has been reviewed to identify and clarify some criteria belonging to each principle, against which the qualitative analysis is built and tested, and – in turn – to better develop their operationalisation. Annex 2 displays the complete list of questions pertaining to the qualitative investigation, divided into the four urban governance principles and the interviewee groups: community members, water board leaders, municipal public servants and state-owned water company officials.

The output of the theoretical applicability – that is the list of queries mentioned above – have been investigated in the second phase through semi-structured interviews and cross-checked with the support of other sources of evidence¹¹. Thus, the practical applicability of the UGI framework has been tested in the Hacienda el Carmen, in two sectors amongst the five composing the settlement where community members are provided with the same water supply system but experience different payment conditions (only in one sector households are already paying forwater).

As highlighted in the introduction, this paper is based on the preliminary findings of a doctoral research run at the School of Advanced Studies in Venice Foundation and the analysis of data collection is currently under development. Even though it is not yet possible presenting final conclusions concerning the outcomes of the UGI framework application at the specific case study in Caracas, some comments can be nonetheless outlined.

At a general level (*theoretical applicability*), UGI principles and indicators proved to be a very useful basis to develop a quantitative investigation concerning the complex and quite ill-defined notion of urban governance. Despite some difficulties in working out the qualitative research structure¹², it was eventually possible to get an insight into the concept of urban governance in its various facets, without reducing the analysis to a specific aspect of local governance (e.g. equity in the access to services, participative democracy or local government transparency). Furthermore, being the UGI based on four clear and well-defined urban governance principles – beyond the quantitative indicators – it was pretty easy to adapt and translate these principles to the community level, working out as many clear and precise queries. This is witnessed, for instance, by the very low rate of non-response that we collected during the field analysis amongst the various groups involved in the research

¹⁰ As for the word *governance*, even the concepts of *effectiveness*, *equity* – and especially – *participation* and *accountability*, are often characterised by in a situation of semantic vagueness and ambiguity. In particular, the ill-definition of these ideas rests, amongst the many causes, on the fact that they are often used as overlapping, interchangeable or also contradicting concepts; secondly, they are sometimes transposed into different application field, bringing yet their original meaning and value (e.g. the company one of *corporate governance* or *financial accountability*); thirdly, they are often linked to very different situations (participation of community members, private sector, local associations? Accountability of whom to whom for what? and so on).

¹¹ Beyond semi-structured interviews, the other sources of evidence used in this analysis have been: documentary sources, focus groups, systematic observation, participant observation and physical artefacts.

¹² With regard to the semi-structured interviews, it is worth highlighting that the selection of questions has faced two main problems. The first one concerns the number of question: despite the complexity of these principles, we were obliged to select only few representative questions – ‘the absolutely necessary questions’ (Laws *et al.*, 2003) – in order not to weigh down the interview and take too much time. The second problem is related to the concepts’ overlap: some questions may belong to a specific principle and, in the same way, to another one (see, for instance, how UN-HABITAT, 2003, relates each UGI indicator to diverse principles).

At a more operational level (*practical applicability*), the UGI framework helped in revealing the aspects and features of the more measurable UGI indicators at the community level. Out of example, equity indicators 12B, 12C (see Annex 1) focus on the existence of a national/urban pro-poor pricing policy for water supply. Field research has explored how the current water policy in Venezuela has been declined at the local level investigating the level of awareness and agreement, and the extent to which decisions over water payment have been inclusively taken amongst the local actors. Preliminary results demonstrate, for instance, that community members are generally aware that they are, or will be, charged with a social tariff and that community can chose either a single meter for the whole community or an individual one for each household, in order to quantify water consumption. In the same wake, indicators 14 and 15, assessing representative democracy within the participation principle, have found their counterpart at the local level in the investigation of how the MTA has been formed and leaders elected. Field research has uncovered that, despite the lack of a clear and formal selections of water board leaders, the latter ones have been able to effectively organise and involve the community in the water related improvements.

5. Concluding remarks and future developments

This paper has presented initial considerations a possible methodological pattern to verify the applicability of an urban governance measurement framework (the UN-HABITAT Urban Governance Index) to a new locally-developed governance arrangement to improve access to water supply (the case of the low-income community Hacienda el Carmen in the Metropolitan Region of Caracas). The UN-HABITAT UGI has been chosen because, in contrast with other urban governance measurement framework – such as the World Bank one – avoids a strictly oriented focus on global and economic issues, while assessing the quality of governance with regard to its level of inclusion. As a result, the UGI basic principles and objectives appear to be closer to the specific characteristics of the Caracas case study.

Furthermore, the preliminary results of the UGI field application reveal that the UN-HABITAT Index is not a mere collection of quantitative data but, thanks to its clear and flexible framework, it can be adapted and applied to the very specific contexts of low-income settlements providing quantitative, as much, qualitative information. In particular, the Urban Governance Index has been providing a useful framework to explore how a low-income community in the periphery of Caracas is involved and included in the current urban governance processes to improve its access to water supplies, even though it not directly address the community level in urban governance evaluation.

Further research is trying to compare UGI indicators (organised in sub-indices of effectiveness, equity, participation and accountability) resulting from the quantitative UGI application at the municipal level with the respective qualitative investigation in communities of the Caracas Metropolitan Region. This research aims at understanding the whole formal and informal governance system in accessing urban water and trying to answer to the two following questions: Is it possible to identify and define a qualitative indicator in assessing this kind of informal governance arrangements? How can it complement the core set of UGI indicators?

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Annex 1: UN-HABITAT Urban Governance Indicators adapted at the case study (in bold)

No.	Indicators EFFECTIVENESS
1	Local Government revenue per capita (LGR)
2	Ratio of recurrent and capital budget (RRC)
3	Ratio of mandated to actual tax collected (TC)
	a. Mandated tax to be collected
	b. Actual tax collected
4	Local government revenue transfer (LGT)
5	Predictability of transfers in local government budget (PoT)
6	Published performance delivery standards (PPDS) for water supply
7	Consumer satisfaction survey for water services (CSS)
8	Vision statement effective (VSE)

No.	Indicators EQUITY
9	Citizens charter for water services (CCS)
10	Percentage of women councilors (WC)
11	Percentage women in key positions (WK)
12A	Percentage households with water connection (HH wat)
12B	Existence of pro-poor policy for water (PPC)
12C	Is water price cheaper for poor settlements? (WP)
13	Incentives for informal arrangements to improve water access (IA)
	<i>a. Informal provisions allowed</i>
	<i>b. Informal provisions with restrictions</i>
	<i>c. Support to informal provisions</i>

No.	Indicators PARTICIPATION
14	Elected council (EC)
15	Locally elected Mayor (LEM)
16	Voter turnout (VT)
17	People' forum (PC) and people' fora for water (MTA)
18	Civic associations per 10,000 pop (CA)

No.	Indicators ACCOUNTABILITY
19	Formal Publication (FP)
	<i>a. Formal publication: contracts and tenders (CT)</i>
	<i>b. Formal publication: budget and accounts (BA)</i>
20A	Control by higher Govt. (CG)
	<i>a. Control by higher Govt.: close local government (CLG)</i>
	<i>b. Control by higher Govt: removal of councillors (RC)</i>
20B	Local government authorities (LGA)
	<i>c. Local government: set local tax levels (SLT)</i>
	<i>d. Local government: set user charges for services (SUC)</i>
	<i>e. Local government: borrow funds (BF)</i>
	<i>f. Local government: choose contractors for projects (CP)</i>
21	Codes of conduct (CoC)
22	Facilities to receive complaints (FRC)
	<i>a. Official appointed to receive complaints on public authorities (OA)</i>
	<i>b. Exclusive facility to receive complaints on corruption (EF)</i>
23	Anti-corruption commission (ACC)
24	Personal Income and assets (PIA)
	<i>a. Disclosure of personal income and assets (PIA)</i>
	<i>b. Disclosure of family's income and assets (FIA)</i>
	<i>c. Income and assets regularly monitored (IAM)</i>
25	Regular independent audit (RIA)

Annex 2: Qualitative research structure divided into the four urban governance principles and the interviewee groups: community members, water board leaders, municipal public servants and state-owned water company officials

	EFFECTIVENESS	
	<ul style="list-style-type: none"> <i>effective delivery of public services</i> 	<ul style="list-style-type: none"> <i>responsiveness to civil society concerns</i>
community members	- Do you think that the MTA has been important to improve your access to water?	- Did anybody of the MTA leaders ask you about your water shortage?
water board leaders	- How do you think that the MTA contributed to improve water access in the community? - How do you think the MTA could improve the current water supply for the whole community?	- How does the MTA become aware of the community water related problems?
municipal public servants	- What are the results and changes of MTA activities in the community?	- How does the Municipality become aware of the community water related problems and MTA activities?
state-owned water company officials	- What are the results and changes of MTA activities in the two communities?	- How does Hidrocapital become aware of the community water related problems and MTA activities?

EQUITY			
	• <i>access to basic services</i>		• <i>equity in decision making</i>
community members	- Up to now, how your access to water improved? - How do you think that the MTA could improve your current access?		- What do you think about water payment? - Did you share your opinion with an MTA leader?
water board leaders	- What is the purpose of the MTA?		- Was there a meeting to speak about water payment? - Did the MTA ask the community about the water payment?
municipal public servants	- What is the municipal purpose with regard to water supply for the (selected) community?		- How does the Municipality involve the community/MTA in the decision-making process? - What is the municipal position with regard to water subsidies?
state-owned water company officials	- What is Hidrocapital purpose with regard to water supply for the (selected) community?		- How does Hidrocapital involve the community/MTA in the decision-making process? - How is the tariff structure organised?
PARTICIPATION			
	• <i>participative democracy</i>		• <i>representative democracy</i>
community members	- Do you know the MTA? - How did you get aware of the MTA? - Have you ever spoken about your water related problems with an MTA leader? - Did you collaborate at the pipeline construction?		- Were you aware of the meeting in which the MTA leaders were elected?
water board leaders	- How many people participate at the MTA meetings? - What are the relationships with the Municipality and Hidrocapital? - Is there a 'water community council'?		- How were the MTA leaders elected?
municipal public servants	- What are the relationships with the MTA? - What are the relationships with Hidrocapital?		- How are the MTA leaders chosen?
state-owned water company officials	- What are the relationships with the MTA? - What are the relationships with Municipality?		- How are the MTA leaders chosen?
ACCOUNTABILITY			
	• <i>transparency</i>	• <i>integrity</i>	• <i>responsiveness</i>
community members	- Do you know the purpose of the MTA? - Do you know the outputs of the MTA meeting?		- Did anybody of the MTA leaders ask you about your water shortage?
water board leaders	- How does the MTA inform the community about the meetings' with the municipality and Hidrocapital?	- Is there a n MTA written regulation?	- How does the MTA become aware of the community water related problems?
municipal public servants	- What are the municipal responsibilities with regard to water supply? - How does the Municipality inform the community/MTA about its responsibilities?	(UGI quantitative indicators)	- How often do you meet the MTA leaders? - Is there an office where people can complain?
state-owned water company officials	- What are Hidrocapital responsibilities with regard to water supply? - How does Hidrocapital inform the community/MTA about its responsibilities?	(UGI quantitative indicators)	- How often do you meet the MTA leaders? - Is there an office where people can complain?