

SCOPING NOTE: OECD WATER GOVERNANCE INDICATORS

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This note aims to support the implementation of OECD Principles on Water Governance in interested member and non-member countries through the development of water governance indicators under the umbrella and guidance of the Regional Development Policy Committee (RDPC) of the OECD.

The note builds on discussions held and comments received at the 3rd, 4th, 5th and 6th meetings of the OECD Water Governance Initiative (WGI)¹, during the session “Counting what counts: getting indicators right” held at the 7th World Water Forum (15 April 2015) and at the 34th meeting of the RDPC (4-5 November 2016). The Secretariat is thankful RDPC and WGI delegates who provided written comments on earlier versions of this document².

This note was last revised after the discussion during the Webinar of WGI’s working group on “Water Governance Indicators”, held on 25 April 2016, which gathered 39 participants from 13 countries.

1. For the *Highlights* of WGI meetings see <http://www.oecd.org/gov/regional-policy/water-governance-initiative.htm>.

2 After the 5th OECD/WGI: Prof Stephen Foster (GWP), Ambassador Mithat Rende (Turkey), Gerard Payen (UNSGAB), Rob Uijterlinde (Regional Water Authorities), Neil Dhot (EurEau), Ellen Van Lindert (Netherlands), Gari Villa-Landa Sokolova (AEAS), Sophie Richard (AgroParisTech), Ian Barker (Water Policy International Ltd), Josefina Maestu (UN Decade Water Programme), Chris Seijger (Deltares), Dr. Hans Bressers (University of Twente), Arwin van Buuren (Erasmus University Rotterdam), and Teun Bastemeijer (WIN). After the 6th OECD/WGI: Peter Gammetloft, Annukka Lipponen (UNECE), Rick Roelofs (Dutch Ministry of Environment); James Campbell, (Australian Department of Infrastructure and Regional Development), Sarah Deeble (Ministry for the Environment, New Zealand); Gari Villa-Landa Sokolova (AEAS). Valuable comments were also received after the Webinar of 25 April 2016 by Gonzalo Delacamara (IMDEA, Spain).

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Acronyms

GDP: Gross Domestic Product

ILO: International Labour Office

ODA: Official development assistance

OECD: Organisation for Economic Co-operation and Development

RDPC: Regional Development Policy Committee

SWOT: Strengths, Weaknesses, Opportunities and Threats

UNEP: United Nations Environment Programme

UNESCO: United Nations Educational, Scientific and Cultural Organization

UNICEF: United Nations Children's Fund

WASH: Water Sanitation and Hygiene

WGI: Water Governance Initiative

WHO: World Health Organization

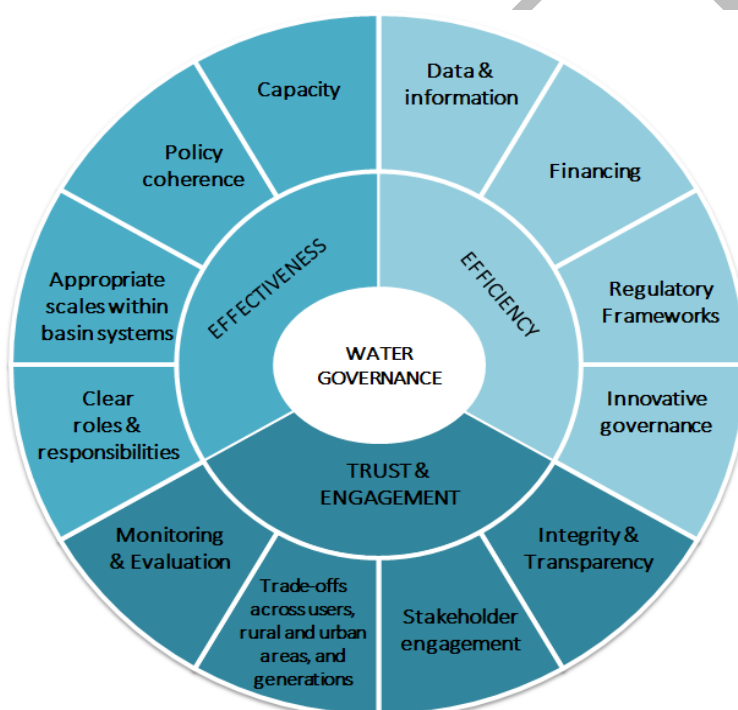
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Setting the scene

OECD Principles on Water Governance

After two years of a bottom-up and multi-stakeholder process within the Water Governance Initiative, the OECD Regional Development Policy Committee (RDPC) approved a set of *OECD Principles on Water Governance* that set standards for governments to reap the economic, social and environmental benefits of good water governance through effective, efficient and inclusive design and implementation of water policies. The Principles consider that governance is *good* if it can help to solve key water challenges, using a combination of bottom-up and top-down processes while fostering constructive state-society relations. It is *bad* if it generates undue transaction costs and does not respond to place-based needs (OECD, 2015a). The Principles were then endorsed by the 34 OECD Ministers at the 3-4 June 2015 Ministerial Council Meeting, which gives them a strong political impetus.

Figure 1. OECD Principles on Water Governance



Source: <http://www.oecd.org/gov/regional-policy/OECD-Principles-on-Water-Governance-brochure.pdf>

The Principles provide a framework to understand how water governance systems perform and help to adjust them where necessary. They consider water governance as the range of political, institutional and administrative rules, practices and processes (formal and informal) through which decisions are taken and implemented, stakeholders can articulate their interests and have their concerns considered, and decision-makers are held accountable for water management (OECD, 2015a). The 12 Principles apply to all levels of government, all water management functions, all water uses, and regardless of ownership models. They are clustered around three main dimensions (Figure 1).

- *Effectiveness* of water governance relates to the contribution of governance to define clear sustainable water policy goals and targets at different levels of government, to implement those policy goals, and to meet expected objectives or targets.

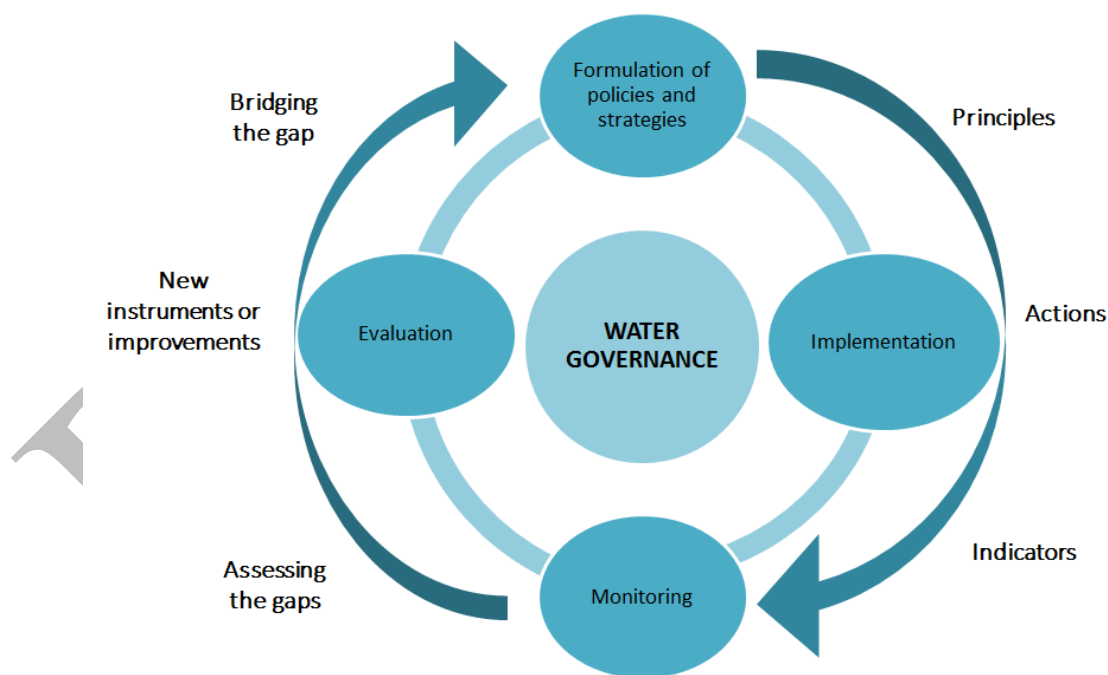
- *Efficiency* of water governance relates to the contribution of governance to maximise the benefits of sustainable water management and welfare at the least cost to society.
- *Trust and Engagement* in water governance relate to the contribution of governance to building public confidence and ensuring inclusiveness of stakeholders through democratic legitimacy and fairness for society at large.

A range of options for using the OECD Principles

The Principles seek to catalyse efforts for making good practices more visible, learning from international experience, and setting reform processes into motion at all levels of government to facilitate change where and when needed. They can also help avoid traps and pitfalls, learning from international experience (OECD 2015a).

Following a case by case and voluntary approach, the Principles can be used in different ways by interested countries and stakeholders as they consider governance as a *means* to an *end* and primarily seek to encourage a *process* that can trigger improvements of the water governance cycle (Figure 2) through monitoring and evaluation to assess the gaps, and/if new instruments are needed to bridge the gaps for better formulation of policies and strategies that can foster greater implementation.

Figure 2. The Water Governance cycle



Source: <http://www.oecd.org/gov/regional-policy/OECD-Principles-on-Water-Governance-brochure.pdf>

- The Principles can be used as a **tool for policy dialogue** at local, basin and national levels and build consensus across a range of public authorities and stakeholders on the strengths and weaknesses of water governance systems, and the ways forward in particular to better manage too much, too little and too polluted water now and in the future.

- The Principles can be a **vehicle for greater transparency** on the performance of water-related institutions, while enhancing the availability of data and accountability of governments and stakeholders on how they deliver intended outcomes, while shedding light on whether institutional and regulatory arrangements are fit-for-purpose and fit for the future.
- The Principles can be used as a **mechanism for inclusiveness** whereby stakeholders, including at operational level, can discuss and agree on the role they can play to contribute to positive spillovers on water governance, alongside policymakers. This can be achieved through in-depth consultations across public, private and non-profit institutions on the *who* can do *what* to improve water governance as a shared responsibility.
- The 12 Principles provide a reading template to **foster bench-learning and scale-up best practices** across public, private and non-profit institutions, different levels of government, developed and developing countries, and across stakeholder groups. The Water Governance Initiative will develop and host a database where such experience can be shared and disseminated for cross-fertilisation and replication where appropriate. There is a strong relationship between *assessing* practices and *learning* about them, as there is between capacity *assessment* and capacity *building*. The Principles provide a framework to identify what works well at local, basin and national level, and also to learn from less successful experiences.
- The Principles can provide a **baseline for measuring** whether needed institutional, regulatory, legal frameworks are in place to allow technical solutions to be efficiently implemented: in other words this means “fixing institutions” before “fixing infrastructure”. The Principles encourage the evaluation of water governance against the overall sector’s performance given that they advocate for place-based policies and consider that water governance systems (more or less formal, complex, and costly) should be designed according to the challenges they are required to address.

The proposed development of water governance indicators intends to contribute to all above-listed objectives and is conceived as one element of the package needed to implement the 12 Principles. Indeed, while the indicators can be helpful in tracking and measuring relevant water governance variables, OECD experience in assessing water governance systems suggests that only in-depth and comprehensive analyses at different levels of government (e.g. local, basin and/or national levels) can take into account specific features, provide a compelling evaluation and tailored policy recommendations. Therefore, the ultimate objective is to support bench-learning among cities, basins and countries that face similar types of challenges and want to learn from successful examples, taking account of the diversity of situations across and within countries. Such indicators would be applicable to countries and stakeholders on a voluntary basis, while keeping reporting burden low and at least cost for the recipients.

Over 2016-2018, a dedicated working group of the WGI will contribute to developing the water governance indicators and help to pilot-test the tentative indicators at different levels of government.

Gaps and challenges to measure water governance

The desk research that led to the *OECD Inventory on Water Governance Indicators and Measurement Frameworks*³ (OECD 2015 b) suggests that while there have been efforts to measure *specific* parts of water governance (e.g. integrity, river basin management, stakeholder engagement), there is currently **no systemic and “universal” framework** to assess the performance of the overall water governance cycle from the allocation of roles and responsibilities, to the monitoring and evaluation to adjust when and where

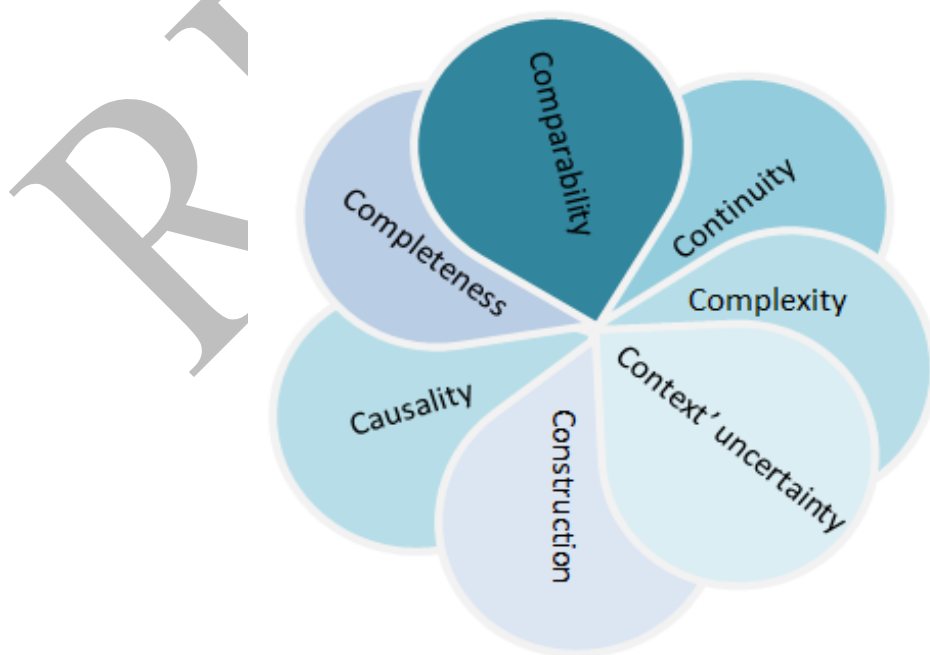
3. The OECD Inventory can be accessed at http://www.oecd.org/gov/regional-policy/Inventory_Indicators.pdf (last updated on 28 October 2015).

need be. There is therefore a rationale and added-value to this undertaking, which seeks to bridge this gap while providing a **common frame of reference that can be tailored to local contexts** in order to assess whether water governance systems are performing optimally in terms of managing water-related risks now and in the future. This also requires discussing the role of authorities across levels of government as well as stakeholders (alongside policymakers) in building and using such indicators.

Building up water governance indicators is a highly daunting and challenging task. A series of issues have to be taken into account (Figure 3).

- A number of **technical** issues arise from indicators' construction such as measurement errors, coherence of measurements, biases in expert assessments.
- Water governance is a **complex** concept, which encompasses multiple dimensions not easy to measure, especially given the high degree of fragmentation and messiness of the water sector compared to other natural resources of infrastructure sectors
- The context of water governance is **uncertain**, as policy makers have limited control on factors that might affect the effectiveness of water governance.
- **Continuity** may be challenging if the scarce availability of data hinders the measurement of progress year after year.
- **Completeness** can also be a concern since when focused on specific items of water governance, indicators fail to capture the whole picture.
- **Comparability** is often at stake, as indicators are not necessarily standardized measures applicable to all contexts unconditionally and given the diversity of situations including in terms of data quality across and within countries.
- Last but not least, the difficulty in establishing **causality** between instruments and results should not be underestimated as an established indicator system might not be able to assess whether or not benefits are the results of certain actions implemented to achieve effective water governance.

Figure 3. Challenges in building an indicator system



Given that the OECD Principles consider that water governance is a *means* to an *end*, it is important to link the effectiveness, efficiency and inclusiveness of water governance to the overall performance of the water sector. OECD studies on water show that significant improvement has been made in OECD and non-OECD countries in terms of evaluating the *outcomes* of water policies, but much remains to be done to assess the *governance* of water policies. Indeed, a number of indicators spurred by international regulations and standards such as those developed by the EU Water Framework Directive, amongst others, have enabled the measurement of the ecological status of water bodies for instance, or water quality standards. However, the measurement of the performance of *institutions* and *processes* and their contribution to the overall sector's performance is lagging much behind.

For instance, some dreaded questions include:

- What are the costs (monetary or not) of fragmentation across multiple authorities and grey areas in the *who does what* across the water policy cycle? (Principle 1)
- To what extent does the creation of river basin organisations or water information systems ultimately contribute to better water resources management? (Principles 2 and 5)
- How effective are inter-municipal arrangements in terms of pooling resources and capacity at the relevant scale and what are related agglomeration costs and benefits? (Principles 2, 4, 6)
- What are the distributional impacts of poor policy coherence between water, energy, agriculture, spatial planning and the environment? (Principle 3)
- What is the impact of corruption and malpractices on the overall economic, social and environmental performance? (Principle 9)
- To what extent does stakeholder engagement contribute to better implementation of water policies and greater awareness of water risks? (Principle 10)
- What is the cost of inaction related to the poor management of trade-offs across rural-urban areas, current-future generations, and water users? (Principle 11)
- How to measure whether the level of capacity fit for the intended responsibilities at the local, basin and national levels? (Principle 4)
- Are regulatory arrangements, including dedicated regulatory agencies where they exist, performing at the best level to discharge key functions such as setting tariffs, supervising operators or ensuring compliance? (Principle 7).

A momentum with water-related SDGs

As the new Sustainable Development Goals were adopted at the UN Summit in September 2015, there is now a unique momentum to move forward the measurement agenda, especially given the prominence of water-related goals and governance-related goals in the overall framework. Ongoing reflections on the SDG monitoring framework provide a window to contribute to the broader agenda and maximise synergies with current efforts in terms of water-related data collection and analyses. In addition to the “dedicated” goal on water (n°6), which itself includes governance-related targets (IWRM and local participation), a number of other sustainable development goals include water-related dimensions (e.g. goals on poverty, cities, energy, well-being, etc.) and/or governance-related dimensions (e.g. food security, inclusiveness, gender equality, capacity building, policy coherence, multi-stakeholder partnerships, data, monitoring and accountability). Together with UNEP and WHO, the OECD is contributing to the monitoring of target 6.a (through the measurement of ODA flows) and 6.b (through water governance indicators on public participation to be developed).

10 guiding questions for water governance indicator systems

Indicators to measure what?

Indicators can follow a *static* and/or *dynamic* approach depending whether the aim is to assess whether framework conditions for good water governance are in place or measure progress of actions taken to improve water governance. In this particular case, the answer is both:

- For water governance, measuring whether or not certain conditions are in place is the first crucial step to identify what can hinder effective water policy design and implementation (e.g. roles and responsibilities are unclear or overlapping), what is missing (e.g. lack or insufficient coordination across policies) and what can be improved (e.g. tools for stakeholders engagement). This “**static assessment**” can be carried out in the short term and should be analysed together with the characteristics of the geographical unit (country, basin, city) under investigation, which include for instance water resources availability, economic and social data.
- In the medium term, a “**dynamic assessment**” can consist in **monitoring progress**. In the case of water management, this can be carried out through a variety of indicators that are straightforward, accessible and easy to understand (e.g. indicators on water quality showing improvements over time). The difficulty lays “behind the scene”, in defining the determinants of such a change and whether there is a causality link with policies (e.g. water quality improvement). On the other hand, changes in water governance might consist in re-allocation of roles and responsibilities; setting up of capacity building instruments; introduction of innovative tools for stakeholders engagement. A range of examples exist for measuring framework conditions in place, progress and effectiveness of policies and instruments.⁴ These changes tend to be slower than changes in water management, and can be equivocally accounted.
- Evidence that countries are doing *more (or differently)* in water governance does not necessarily entail that they are doing *better*. For example a re-allocation of roles and responsibilities, while aiming at deliver better services or protect against water-related risks, may lead to increased institutional fragmentation. Additional trainings might not be effective in improving capacity or, stakeholder engagement may be relevant only to certain categories and not contributing to decision-making. In order to assess whether changes correspond to “progress”, **impact evaluation** on whether particular objectives have been achieved needs to be carried out on a case-by-case and often requires a **middle or long term timeframe**.

Proposal to the WGI/RDPC: Measuring what needs to be improved is essential to provide a tangible, consensual and objective base that can trigger collective action. This is why it is proposed to develop a set of practical, simple and agreed-upon indicators that can adapt to local circumstances and help strengthen water governance in assessing i) framework conditions; ii) water governance performance and

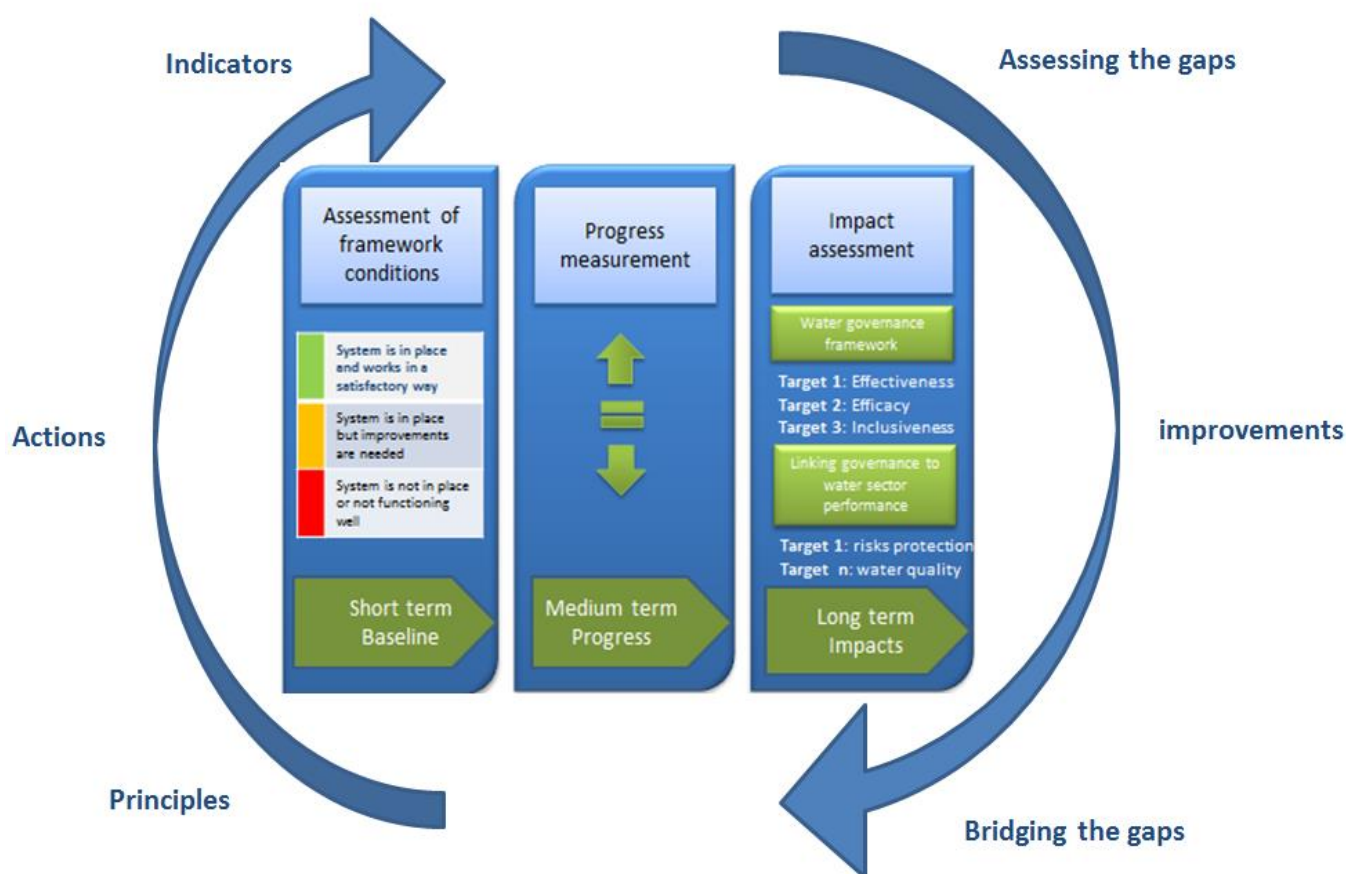
4. For example, for the first category the *Water Management Transparency Index* (Transparency International) assesses the extent to which a water agency makes relevant information available on the website; the *Asia Water Governance Index* compares water governance in Asia, in terms of water laws, policies and administration; and a number of databases (e.g. FAO Water Lex, Water Lex Legal database), maps and report cards (e.g. Basin Report Cards, WWF) also provide information on framework conditions. Regarding the second category for example, *UN-Water GLAAS Global Analysis and Assessment of Sanitation and Drinking-Water* (WHO) assesses progress towards the Millennium development Goals, The *Pacific IWRM Project* (GEF) monitors progress towards Integrated Water Resources Management (IWRM). For the third category, the *Water Security Index* (ADB) indicates how the legislative and regulatory framework is more or less conducive to water security, also linking to non-sector specific indicators on governance

iii) impact of water governance. There can be different options regarding “what” indicators should seek to measure, and these options can be progressive and/or cumulative

- A first option could seek to assess whether **conditions are in place** across levels of government but also across public, private and non-profit sectors to implement the 12 OECD Principles in practice. This “static assessment” could be prioritised in the short term, in the form of a traffic light system for example, to support the use of the Principles as a tool for dialogue among policymakers and stakeholders.
- A second option should seek to measure **progress** in water governance, through more precise evaluation of the distance from the baseline situation. This undertaking could be a more medium-term approach, building on consensus among stakeholders in a given city, basin or country on the metrics to use, the ideal scenario to achieve, and required efforts to do so.
- Finally, a third option (in the longer term) could try to **evaluate impacts** of water governance on the outcomes of water management, namely if “governance” objectives have been achieved, if “management” objectives have been achieved and what is the link with governance. This stage approach underlines the multidimensional applicability of water governance indicators and may require more time. (Figure 4).

This three-step approach needs to feature the temporal dimension into the assessment or measurement framework because it takes years if not decades to set up, operationalise and reform institutions to address intended objectives of providing clean water and sanitation for all. Any governance indicators should reflect these considerations as governance may well otherwise be seen as having failed to achieve the expected results. In each of the stages of implementation, indicators should provide clear guidance about where pitfalls or failures are so that they can be addressed. Wherever possible, indicators should be able to measure each of these three steps for each Principle.

Figure 4. Proposed steps of the evaluation framework



Which type of indicators?

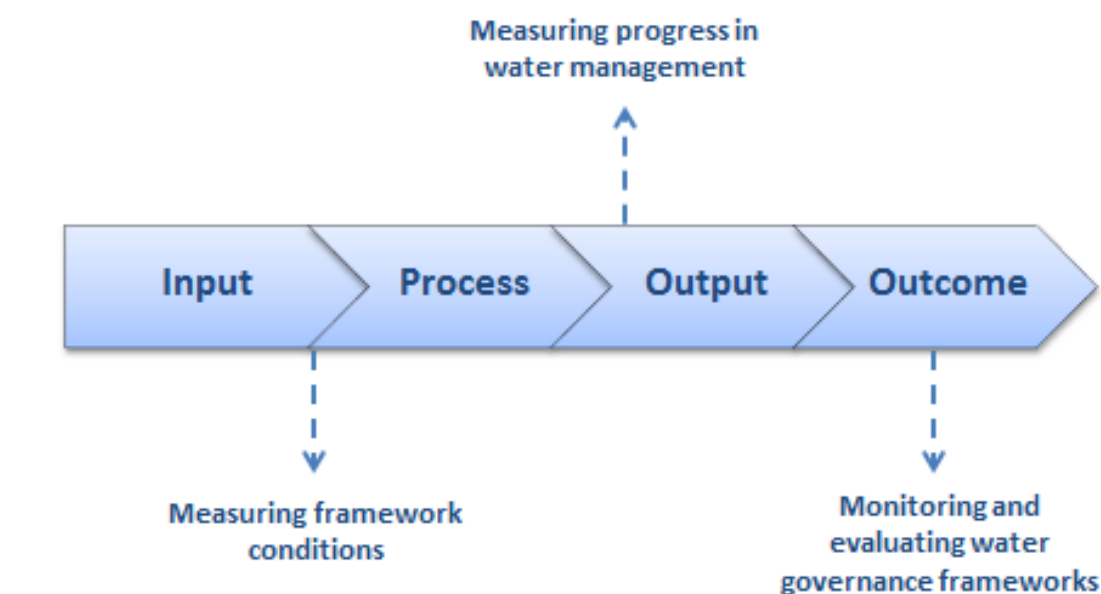
Indicators can take the form of measurements of an objective to be met, resources to be mobilised or effects to be obtained, a gauge of quality or a context variable (European Commission, 2006). Depending on *what* they measure and *when*, indicators can be distinguished in i) input and process indicators to measure how water governance is implemented; or ii) output, outcome and impact indicators when looking at the results in the short, medium and long term. More specifically:

- **input indicators**, measure the presence of legislation and policy instruments or track human/financial resources (e.g. resources for water functions). In particular, when used to codify details of the constitutional, legal, or regulatory environment, as well as the existence or absence of specific agencies, such as river basin commissions or water agencies, such indicators are de jure (rules-based) ones;
- **process indicators** monitor actions contributing to the achievement of outcomes (e.g. public consultation in planning and budgeting); **output indicators** monitor results in terms of quality or quantity of tangible assets (e.g. number of wastewater treatment plants built, volume of water produced, indicators on water quality and water risks);

- **outcome indicators** measure short-medium term results out of such outputs (e.g. % of people with access to water services). When the outcomes indicators measure the result from the application of the rules, they are *de facto* indicators. For example, a rules-based indicator of corruption might measure whether countries have legislation prohibiting corruption or have an anticorruption agency. An outcome-based measure could assess whether the laws are enforced or the anticorruption agency is undermined by political interference (Kaufmann and Kray, 2008).
- **impact indicators** measure usually long-term results (e.g. improved health).

As explained in the setting the scene section of this scoping note, the intended objective of the development of indicators on water governance is two-fold : measure whether the framework conditions are in place to actually achieve the standards set by the 12 OECD Principles; and ii) assess the performance of water-related institutions and governance arrangements vis-à-vis intended outcomes. A range of experiences exist in terms of using such indicators⁵, and choice of the *type* of indicators is crucial to meet expected objectives:

Figure 5. Types of indicators and their aims



5. For example, the UN- *HABITAT* project on “urban water and sanitation governance index” identified a number of **process indicators** to measure governance conditions for adequate water and sanitation delivery such as, for example: percentage of departments establishing programme monitoring and percentage of local governments using Citizen Score Cards. Among the **impact indicators** of this project are: percentage of households with metered water connections and percentage of departments with improved Citizen Score Card results. The *Equity index in water and sanitation* (Luh et al. 2013) is composed by structural (e.g. existing laws that recognize the need for disadvantaged groups to be treated differently), **process** (e.g. estimated percentage of the drinking water budget dedicated for the poor) and **outcome** index (e.g. rate of decrease of the proportion of the population using an unimproved water source compared to the rate of decrease of the proportion of the population using a non-piped improved source). The *Governance Benchmarking Project* (Svendson et al. 2010) uses **input indicators** for governance capacity (e.g. policy, legal, and organizational framework) and **outcome indicators** for measuring performance (e.g. results from the decisions taken within the governance framework).

Proposal to the WGI/RDPC: It is suggested to focus on *input* indicators to determine whether **framework conditions** are in place and *process* indicators to measure the **actions in place** to reach certain objectives (e.g. vertical, horizontal coordination, stakeholder engagement). It is also proposed to use to the extent possible, *outcome* indicators in order to **measure progress** in water management (operational indicators) and ultimately be employed to assess the linkage between changes in output indicators over time and governance frameworks (governance indicators). Finally, *output* indicators would help to link the **evaluation of governance** systems to the overall sector performance. These types of indicators should be used to measure the 12 Principles and according to water management function (drinking water, wastewater treatment, sewage collection, drainage, flood protection, drought management, water quality etc.). The definition of the indicators and their qualitative attributes should be clearly agreed on and easily understandable, so to facilitate data collection. It is suggested to start focussing in a first stage on “easy to measure” Principles, and enlarge the measurement to all principles after careful considerations of metrics/proxies.

Whose views?

The condition sine qua non for measurements to take place is the availability of data. However indicators should be **objective-driven** rather than data-driven in order to avoid the risk of obtaining data-rich, but information-poor indicators. Some countries have open data systems at central level regarding water governance aspects (e.g. Netherlands, Australia, United Kingdom, United States, France, Italy, Canada). In some cases, the challenge is not necessary to define new indicators, but adapt those which already exist, coordinating across agencies and minimizing the administrative costs of producing data. There is a wide range of data producers when it comes to measuring several aspects of water governance:

- civil society, regulators and supreme audit Institutions possess data that can be helpful in measuring transparency, stakeholder engagement and regulatory frameworks;
- national governments can shed light on the framework conditions, regional and local authorities can help setting indicators for accounting the above gaps at sub-national level;
- river basin organizations can provide inputs on water resource management, while service providers have the information at hand on drinking water supply and sanitation;
- international organisations provide a data concerning their member states, as in the case of information on legal frameworks or the implementation of economic instruments.

Building on already existing indicators would avoid overlaps and duplications. This, however, should imply greater transparency of data and information for a more efficient use of resources and effective knowledge-sharing. Even when data exist, issues arise in terms of fragmentation, inaccessibility and disclosure of data. Overcoming them requires more than technical competences and strong political will to unleash the benefits of the “digital economy”.

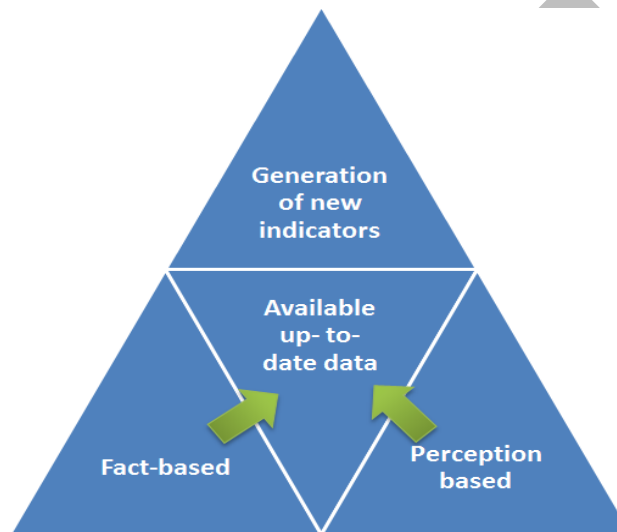
Depending on the objective, indicators can be **perception-based**, when based on the view of experts or various types of stakeholders, or **fact-based**, when built on available data and information. Perceptions and fact-based indicators can be either quantitative and/or qualitative, sound quality control is crucial in cases. Data can be collected through questionnaires, interviews and meetings should, to the extent possible, be underpinned by solid evidence on actual practices and mechanisms in place.

- **Factual data** can be widely used to obtain input, process and output indicators, but they are sometimes insufficient and not always meaningful. For example input indicators using the factual

data concerning the presence of environmental laws, say little about the actual implementation of the laws or governance gaps.

- **Perception-based data** stemming from interviews with distinguished and independent experts can be complementary, as common practice for building governance indicators shows.⁶ The subjectivity of respondents can be reduced through: i) clear indications on how to respond to the questionnaire in order to avoid misinterpretation; ii) validation of scores by other experts review and feedback; peer-review teams; iii) different statistical analysis for fact and perception-based data (e.g. perception-based data might be counted in the final score/ composite indicator, but represent a qualitative complement to obtain further information on certain aspects).

Figure 6. Factual and perception based indicators



Proposal to the WGI/RDPC: It is suggested to develop water governance indicators based on *factual data* (available in countries' reviews, reports, national databases, international organisation's databases, other institutions, such as regulators, supreme courts). *Perception-based data* to be collected through questionnaires/ interviews (experts judgement, stakeholders' surveys etc.) could be used only as complementary information. Some enquiries may produce "prospective information" for relevant indicators, as the quality of governance will often appear during crisis situations (floods, droughts, accidental pollution etc.) rather than facing actual situations. Once indicators are agreed upon, the first step of the analysis will be to look for available and up-to date data through desk research within each interested/volunteering city, basin or country, as data production and collection should come at the least cost for society. The second step will consist in filling the gaps through multi-stakeholder policy dialogues and consultations with policymakers and practitioners to build consensus, bearing in mind that indicators should be simple, affordable and manageable for governments and stakeholders. There should be a balance then between available data, which allows to avoid duplicating efforts of data collection, and the production of new metrics and evidences, for which the methodology used should be clearly specified.

6. For example, "**The institutional Economics of Water: A cross-country analysis of institutions and performance**" (Saleth, Dinar 2010) provides a cross-country analysis of institutional arrangements and initiatives in the water sector, drawing from the results of a perception-based international survey of water experts. The **UN-Water GLASS report** requires, amongst others, a self-evaluation from countries, which is based on a subjective judgment. In the case of the **Environmental Democracy Index** (WRI 2015) for each participating country, one environmental lawyer provides indicator scores.

Indicators should be complemented by solid evidence on existing practices to address some of the issues, especially in cases of indicators showing lower performance.

At which scale?

Water is managed at multiple scales and coordination among these scales is essential. As in most countries, water is essentially managed locally, sub-national data is essential to reveal regional disparities in access, quality and performance. In decentralised contexts and federal countries data can be available at sub-national level and be also more relevant than the central level; river basin organisations in certain countries possess information relevant both at national and sub-national level. In the case of international regulations (e.g. EU Water Framework Directive), indicators at supranational level influence national practices. Indicators can therefore be built at different scale: international, macro-regional, national, state/provincial, basin, sub-basin and local level.⁷

The question of scale raises important issues when it comes to measurement. First, the **dispersion of data** across levels of government and agencies and the harmonisation of data. Therefore coordination is needed for obtaining a compelling picture of the water governance system. Second, the **availability** and the **capacity to collect data** vary across and within countries; basin management should also consider related groundwater.. Third, different water functions can be “measured” at **different scales**: water policies are effectively implemented when policy responses are set at the scale that better fit with functions and place-based needs (e.g. for service delivery: critical mass achievement, economy of scale; for resources management: hydrological logics to address linkages between water demand and water supply). Fourth, the mismatch between administrative zones and hydrological boundaries in many countries generates governance a gap, thus measuring the quality of the governance put in place by river basin organisations is of crucial importance in order to ensure water is managed at the relevant scale and through a coordinated approach.

Proposal to the WGI/RDPC: It is suggested to that the indicators to be developed by reflecting the multi-scale dynamics of water governance. When appropriate, it is suggested to collect data and information from sources at different scales. Also keeping in mind that for instance some information available at national and administrative sub-boundaries level might not be available at river basins levels Issues of treatment (aggregation, disaggregation), comparability and accuracy of data will be subject to extensive discussions among Members throughout the project.

Which process?

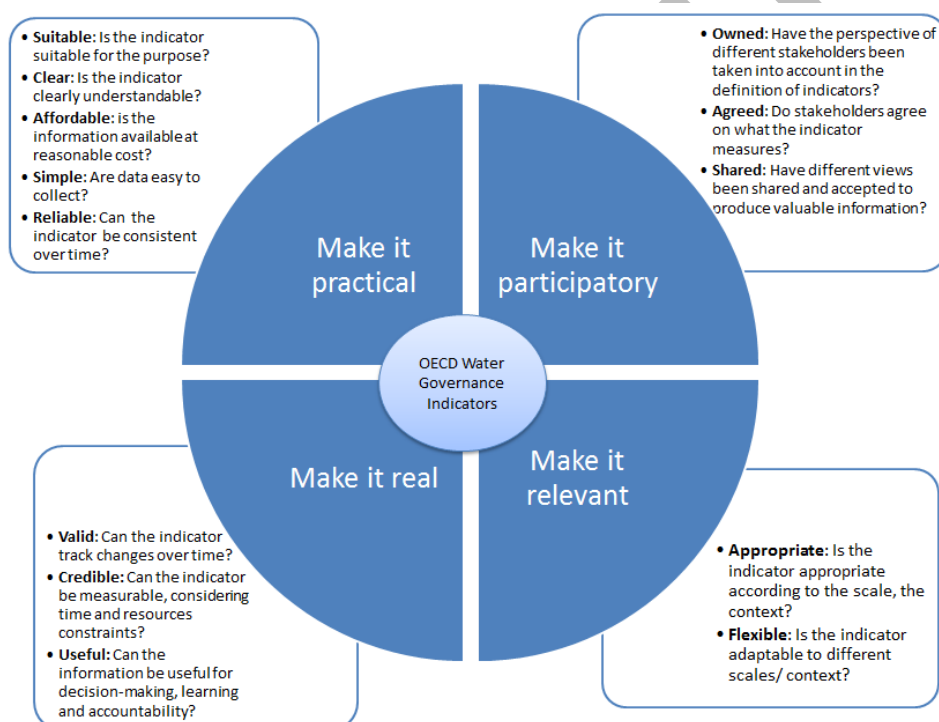
OECD best practice suggest that indicators should be developed in a collaborative effort across levels of government, and in consultation with the broad range of stakeholders not only to build consensus, but also to minimise the risk of “too safe” indicators or “too poorly” measurable ones. In practice, those responsible for implementing the activities might be tempted to construct “easy-to-get” indicators (mainly

7. Some indicators can **benchmark countries** of a given region in terms of governance conditions and progress towards specific objectives (e.g. *Asia Water Governance Index*; *MENA-USAID Regional Water Governance Benchmarking Project*). At national and sub-national level, indicators can **investigate on gaps** and help setting priorities, as in the case of the *OECD Multi-level Governance Framework* and related proxies/indicators. At basin level, the NARBO’s *Performance Benchmarking of River Basin Organizations* is based on the **assessment of five critical performance areas** (mission, stakeholders, learning and growth, internal business processes and financing measured) over a set of 14 indicators. INBO’s *Performance Indicators for African Basin Organizations* (2010) consists in a **self-evaluation** of organizations on their operation and achievement of their missions. Selected US basins have been monitored by a set of **key performance indicators** (Hooper B. 2006), including coordinated decision-making, accountability, training, information and research, among others.

data-driven) and “easy-to-meet” targets. However, when indicators are built by those who are not in charge of monitoring them, they might be too ambitious and less realistic. Input-based and bottom-up processes are important to take stock of what exists and ensure collective action, where appropriate, in the production, collection, use and dissemination of data to guide public action.

The development of indicators for measuring the implementation of the OECD Water Governance Principles is a complex task, requiring time and major efforts in streamlining effective measurements, while reducing the burden of countries in collecting and providing data. This is the reason why such indicators are expected to have certain characteristics: be practical (in the production and collection), relevant (according to the purpose of the measurement) and real (considering resources and time constraints) (Figure 7).

Figure 7. Expected characteristics of indicators⁸



Proposal to the WGI/RDPC: It is suggested to draw from the range of expertise and knowledge available across public, private and non-profit sectors represented within the WGI to foster discussions at *technical* level and experience-sharing between experts and practitioners, under the oversight of the RDPC.

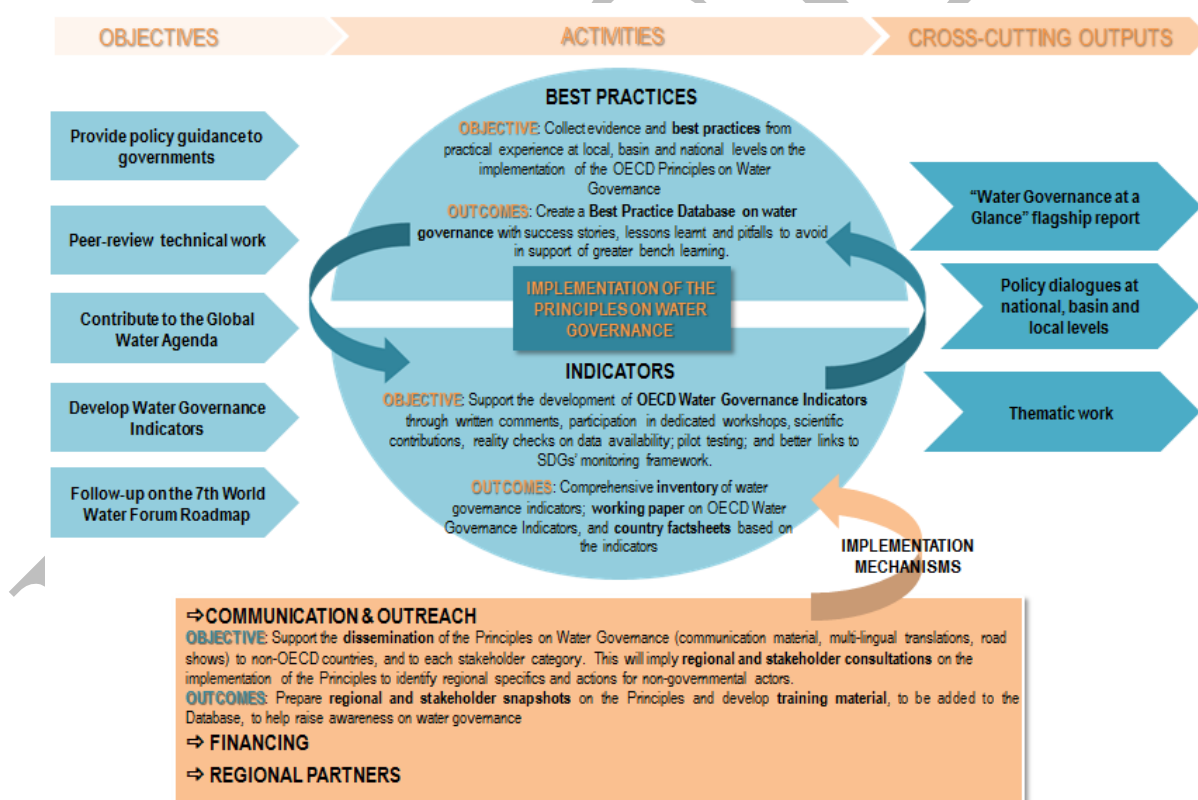
- The **knowledge and practical experience** with indicator of service providers, basin organisations, scientists, donors, civil society, business and other players can help scale up best practice based on what has proven successful, but also anticipate pitfalls to avoid, by pilot-testing indicators. The collaborative effort can also help ensure that the most relevant indicators are identified and measured. Some may be important for the national-level government while others

8. Based on the set of criteria for the selection of indicators identified in: SMART (Specific, Measurable, Achievable, Relevant and Time-bound) and RACER (Relevant, Accepted, Credible, Easy, Robust).

may be important to various sectors of the community, such as local government, indigenous peoples or the agricultural sector.

- The input-based and bottom-up process underpinning the **consultations** throughout the project is an instrumental way to learn from international experience and to enhance communication between the technical experts who often develop indicators and the policy-makers who should use them to take informed decisions and guide public action. In practice a dedicated working group of the WGI will be devoted to this undertaking over 2016-2018.⁹ In particular, the working group will i) contribute to developing water governance indicators, including a taxonomy of inputs, process, outcome, output and impact indicators, based on policy, practical and/or academic experience; ii) help to pilot-test the tentative indicators at different levels of government and in different contexts, to provide “reality-checks” on data applicability/availability; and iii) provide a list of self-assessment questions for policymakers and stakeholders to assess where they are performing well and where there is room for improvement and for different authorities to map their respective roles in terms of improving water governance. This, together with the collection of best practices would help governments learn from one another and scale up what works in practice.

Figure 8. The WGI structure and purposes (2016-2018)



Source: Strategic Paper, OECD Water Governance Initiative: Achievements and Ways forward, October 2015

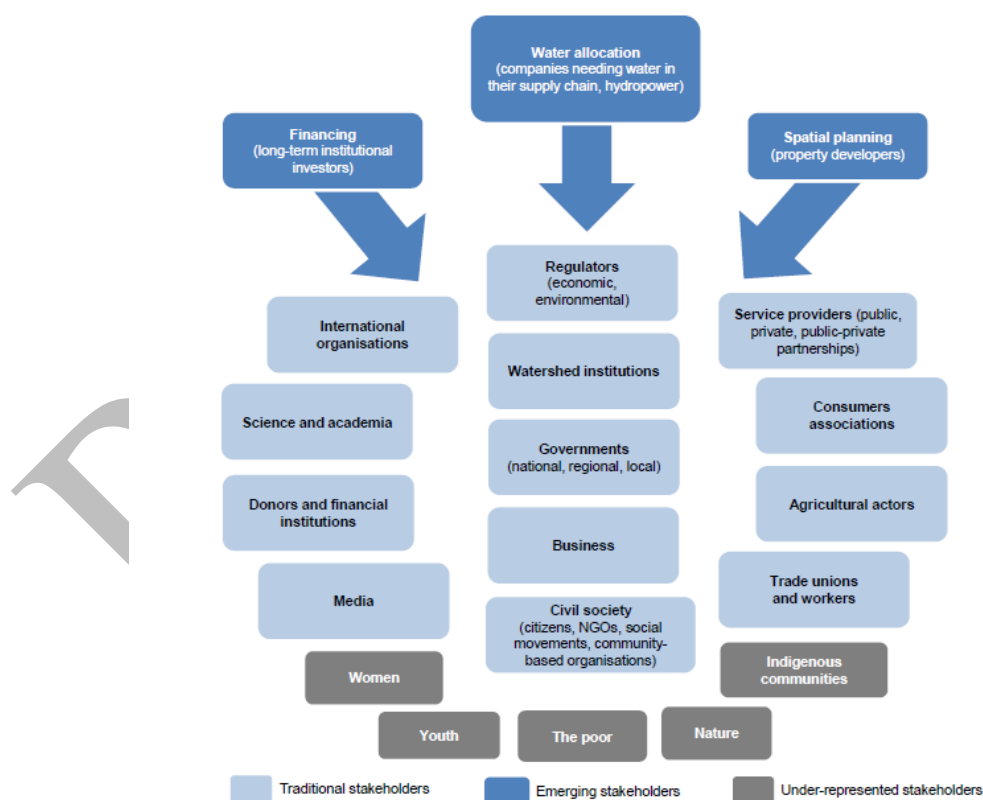
9. As explained in the strategic paper of the WGI (2016-2018) « The working group will support the development of water governance indicators to help governments and stakeholders understand whether governance systems are well-performing and delivering expected outcomes, and if not, what needs to be fixed. The indicators will provide key metrics and data needed to foster peer-to-peer dialogue on water governance. The project will be based on iterative discussions with members of the WGI and overseen by the RDPC, in cooperation with relevant subsidiary bodies”.

Who are the beneficiaries?

In the water sector, several categories of beneficiaries can be distinguished when it comes to measuring aspects of water governance; e.g.

- **governments** at different scales, from community level to national or supranational, to guide their public action;
- **river basin organisations** and their constituencies, to shed light on their results;
- **service providers**, whether public or private, to improve their performance;
- **donor agencies** to guide their strategic investments and technical assistance;
- **NGOs** on ecosystems at large and various water uses, as well as citizens' well-being;
- **civil society**, which can trigger greater transparency through accessible and relevant data and information that can enhance participation water-related decisions
- **emerging actors**: beyond the “traditional” actors, other stakeholders have gained increasing influence in the decision-making and implementation processes related to water. Some of which are long-term institutional investors, companies using water in their supply chain and property developers (OECD 2015c)

Figure 9. Ultimate beneficiaries of indicators



Source: OECD (2015), Stakeholder Engagement for Inclusive Water Governance, OECD Publishing Paris.

Proposal to the WGI/RDPC: The OECD Principles acknowledge that water governance is a **shared responsibility** across levels of government and the broader range of stakeholders from public, private and non-profit sectors who have a role to play alongside policymakers. Therefore, the water governance indicators should help **all the above-listed recipients**, mainstream good governance into their daily practices and individually and collectively contribute to better governance as emphasised in the Daegu Declaration on OECD Principles signed during the 7th World Water Forum.¹⁰

How will indicators be used?

Indicators should inform the state of play of interested cities, basins and countries regarding the implementation of OECD Principles on Water Governance, and favour bench-learning and capacity building following a voluntary approach. Indicators on water governance can be used to meet a wide range of objectives, and a range of options can help doing so:¹¹

- **raise awareness** and protect from current and future water-related risks, indicating whether governance systems are properly equipped to deal with them ;
- build the case for greater attention to water governance in of the **overall strategic agenda** (e.g. shedding light on poor or good performance to set policy priorities) and link water to broader economic, social and environmental priorities;
- foster **better spending** (e.g. provide trustable information to donors for targeted investments) and help foster value for money through more efficient governance;
- enhance **cost-saving** (e.g. improving governance can generate economic benefits, reduce bureaucratic burdens and result in efficiency gains.) through economies of scale and scope where appropriate;
- support **financial sustainability** (e.g. more predictable and stable environment to mobilise/disperse needed resources) while helping catalyse needed investments and disperse funding with parsimony and transparency.
- enhance **inclusiveness** through building consensus on actions needed to bridge gaps in water governance.

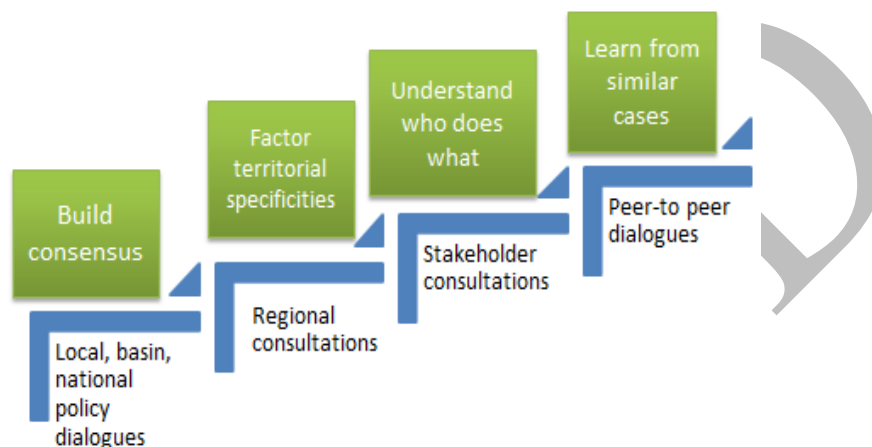
Proposal to the WGI/RDPC: it is proposed to develop indicators that will be used to measure progress over time and assist the above-listed recipients in improving the water policy cycle (e.g. through datasets, best practices, clusters of countries facing similar types of challenges) and to provide them with an indication of the role they can play to contribute to positive spillovers on water governance, be they practitioners, civil society or policymakers. In order to do that, in addition to the regional consultations in specific countries, cities, basins of different continents, a number of stakeholder consultations can be carried out to figure the role, for each constituency, in making the Principles happen on the ground (e.g.

10. See the declaration and signatories at <http://www.oecd.org/gov/regional-policy/world-water-forum-7.htm>.

11. For instance, in the case of utilities, the *IWA Performance Indicator System* for water services is used for internal performance assessment and metric benchmarking, while the *Turin Index* (Turin School of Local Regulation) can allow local operators to identify vulnerable groups of users facing a higher risk of delaying payments. Indicators can be used by governments for prioritising funding and investments and identifying areas for research, such as in the case of the *Canadian Water Sustainability Index* (Policy Research Initiative); they can also be used by companies to prioritize actions; by investors to leverage financial interest to improve water management (*Aqueduct Water Risk Framework*, WRI); by stakeholders to assess their governments' performance in ensuring adequate access to resources, such as in the case of the *Access initiative*, and by users to track progress in protecting the public's rights to information, participation, and justice in environmental decision-making, as in the case of the *Environmental Democracy Index* (WRI).

utilities, regulatory agencies, river basin organisations, donor agencies, local authorities etc.). Peer-to-peer dialogue and multi-stakeholder approaches are important not only in designing indicator frameworks, but also in engaging from different spheres to use them with a view to foster transparency and accountability at all levels. At some point of the process, a SWOT analysis of the indicators according to different policy needs and data situations may be worthwhile. The final output should represent an inspiration for developing countries and stakeholders for the indicators to be used in several contexts.

Figure 10. The use of indicators and outcomes



Who will collect and produce the data?

A range of international organisations are currently collecting data and monitoring the progress in the water sector¹², especially in the current context of developing a monitoring framework for the SDGs following their adoption on 25 September 2015. The OECD Inventory of Water Governance Indicators and Measurement Frameworks lists no less than 60 of these initiatives, carried out at different levels and across public, private and non-profit sectors. The overall ambition of the project for developing indicators on water governance is to **build on what exists and fill in the gaps to suggest a systemic framework** of indicators that encompasses the 12 dimensions of water governance covered by the OECD Principles. This endeavour therefore requires synergetic and collaborative efforts between policymakers, practitioners and other stakeholders to make the most of the best practices identified and concentrate further efforts in bridging identified gaps.

There is an essential role for national statistical offices, but also for other data producers at sub-national levels. A range of public agencies and ministries can contribute to the provision and monitoring of data, as the Ministry of Finance and Ministry of Environment, in the case of the OECD Database on instruments used for environmental policy.

Proposal to the WGI/RDPC: it is proposed to follow a voluntary approach with interested cities, basins and countries willing to pilot-test or use the to-be-developed indicators. There is a range of options for collecting and producing data in a way that is cost-effective, place-based, and outcome-oriented and it is expected that the ultimate recipients use the indicators for their own purposes considering the wide range

12. For instance, UN-Water Taskforce for IWRM or the UN WWAP Working Group on Gender-Disaggregated Indicators. Partnerships between research centre and international organisations are in place for the *Basin Report Cards* (e.g. between WWF-Colombia and the University of Maryland), UN-Water Working Group on Sustainable Development Goals, IAEG-SDG, etc.

of underlying objectives. A specific contribution of the WGI could consist in providing a bridge to identify data producers at local, basin and national levels, following a voluntary approach to exchange experience among their peers facing similar types of challenges to seek common solutions. The **RDPC** could carry out such an effort in consultation with the WGI with a view to provide a snapshot every three years about the state of play of water governance at different levels, taking into account the particular needs of interested countries in terms of capacity building, technical assistance or financial support to provide such data and information if they volunteer.

How to ensure replicability?

When aiming at capturing the evolution in time of specific variables, indicators should be monitored throughout the years. However, variables originally measured cannot always be replicable in *time*, as they might not be relevant or useful in tracking governance dimensions. This has been the case of indicators for the *UN World Water Development Reports* (WWDRs), which decreased from 160 indicators in the 1st edition to 58 indicators in the 3rd one, either because there was no systematic process for updating the data used for most of the indicators presented in the first report or because they were identified as not useful by the source agency¹³.

It is necessary to take account the fact that there may be a very long time lag between putting in place a given governance framework and obtaining tangible results in the water bodies, cities, countries. For instance, there are issues linked to the question of multilevel governance, to the time needed to turn management decisions into public and private investment decisions, to making investments operational and to operational measures having an impact on the environment. The time lag is also the reason why informal processes and mechanisms are implemented without awaiting the establishment of local management bodies and burdensome investigations, which would otherwise unnecessarily delay improvements in water management. The bottom line is that governance, as a means to an end, should at the end of the day lead to better management in terms of balance between demand for and supply of water and of water and environmental resources of adequate quality.

Another concern is the replicability in *space*. Usually, replicating indicators originally developed for certain context and scales requires some adaptation: for example, the *Water Management Transparency index* is not a universal set of indicators and requires adaptation to the local context, which is a task of an expert local technical team. Araral and Yu (2013) tested and replicated their water governance framework and methodology to compare countries overtime, finding significant variations in water laws, policies and administration among high, middle and low income countries.

Proposal to the WGI/RDPC: it is proposed that the OECD Water governance indicators will be pilot-tested at different levels of government and in different contexts, to provide “reality-checks” on data applicability, availability and replicability. This will also help track redundancy, incompleteness and inconsistency and signal possible difficulties in specific countries due to their current information infrastructure or “maturity” of water governance arrangements. Umbrella organisations and stakeholders represented in the WGI could provide useful bridges to their constituencies, based on a voluntary approach, to carry out such pilot tests where appropriate (New Zealand offered to pilot the indicators in 2016 or to apply the indicators in 2017, at a national or regional scale).

How to disclose results?

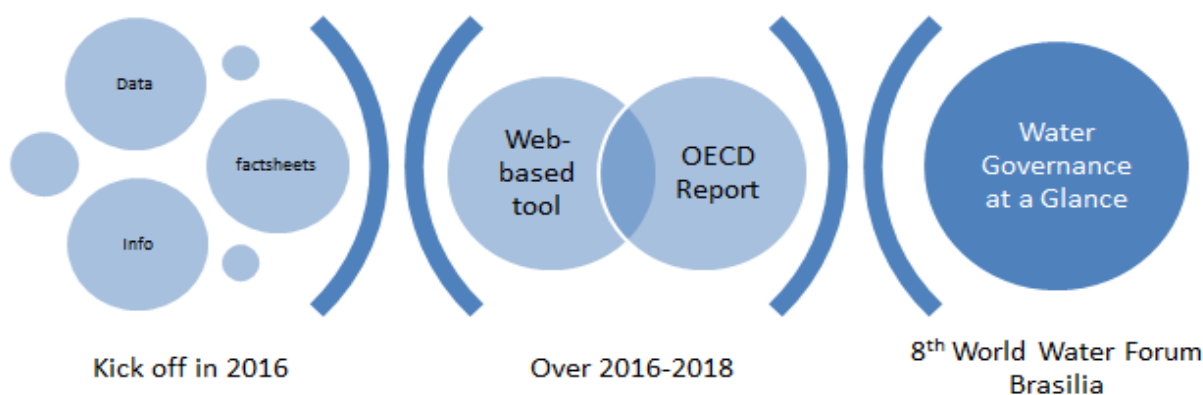
The results from the indicators should be available in a cost-effective and user-friendly format both online and in printing. The information could be shared through **interactive platforms and databases**

13. <http://webworld.unesco.org/water/wwap/wwdr/indicators/>.

organised **around the 12 OECD Principles** in synergy with the “best practice” pillar of the WGI activities over 2016-2018. They should feature score-cards, city/basin/country profiles and other formats that would enable to foster experience-sharing among recipients facing the same challenges and looking for common solutions.

It is expected that such an information base, to be collected through a voluntary approach, would help **scale-up good practice**, enhance **self-assessment approaches**, and foster policy dialogue across levels of governments and between public, private and non-profit players with a view to improve the formulation of objectives and enhance the effectiveness of strategies. This implies making data available to different categories of authorities and stakeholders, such as governments, science and academia, regulators, donor agencies, basin organisations, service providers and civil society at large.

Figure 11 Timeline for information disclosure



Proposal to the WGI/RDPC: It is proposed to reflect the results in the **OECD Database** on Water Governance to be set up over 2016-2018, as well as in a dedicated **publication on “Water Governance at a Glance”** to be launched at the 8th World Water Forum in Brasilia (March 2018). The database would consist in a web-based instrument, supported by open data, visualisation tools and consultation platforms as well as city, basin or country “factsheets” or “snapshots”. The final output should not consist in a ranking of countries’ performance, but countries should be clustered in homogenous groups for identifying weakness and strengths. Attention should be paid on the appropriate communication vehicle: not too jargon- driven, nor too technical and possibly available in different languages.

Further technical discussion is needed as to whether to use disaggregated or aggregated indicators (e.g. one for each principle) and find the best way to easily communicate the results while avoiding missing relevant information due to the methodology chosen. There are advantages and drawbacks of both approaches: the first dilutes information, the second is more difficult to communicate (OECD 2014a). An aggregated indicator would be certainly helpful to summarise complex information and provide especially the “non-specialists” with a synthetic measure of water governance. However, disaggregated information provides a better overview of the reasons for failure or success.

To the extent possible, parallels with the current structure of water-related and governance-related goals and targets of the SDG framework should be made to facilitate the broader uptake of such indicators by other institutions.

Tentative calendar for the WGI working group on indicators (2016-2018)

- **23-24 June 2016:** 7th WGI meeting: brainstorming in working groups
- **28 August – 2 September 2016:** Informal gathering at the Stockholm Water Week
- **7-10 November :** Discussion at the Regional Development Policy Committee, OECD
- **December 2016 - January 2017:** 8th WGI meeting
- **1st semester 2017:** discussion in relevant OECD bodies
- **2nd semester 2017 :** collection of data from volunteer countries, basins and cities
- **December 2017:** 10th WGI meeting: presentation of first results
- **April 2018:** Launch of the “Water Governance at the Glance” report, 8th World Water Forum

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