

# Risk maps and diagnostics

This section provides a link between the *Global Corruption Report 2008* and on the ground anti-corruption action. To build pressure on those who are in a position to actually change policy, the areas where corruption takes place or is likely to take place must be identified. Advocacy efforts should then be aimed towards people who control, or can influence, practices in that area.



A first step is to identify where and how corruption in the water sector takes place at the local level and what is lacking to prevent it in places where such corruption exists. Useful tools to accomplish this first step are a diagnostic risk map and a diagnostic checklist – both included as templates in this guide.

A risk map is not a map in the conventional sense, but a tool which will help you to pinpoint those areas where corruption occurs and at the same time to indicate what strategic research – field or desk work – needs to be done to illuminate these areas for future anti-corruption work.

A diagnostic checklist can be used as part of the risk map or in conjunction with it to show what institutional arrangements are lacking, or how specific context-related problematic areas link to each other. Corruption exists where transactions take place and where decisions need to be made by those with discretionary powers. The other factor necessary for corruption to exist is that incentives for corruption (or disincentives for integrity) also exist in those areas.

## Water sector risk mapping

One reason why the water sector is prone to corruption is that a country's water sector is usually a complex entity of various sub-sectors artificially cobbled together by competing hegemonic institutions and institutional arrangements. The shape this entity takes is dependent on a region's history rather than any organic evolution. Rather than teasing out the various strands of this net, a risk map sets up a research framework based on what water sector projects actually do – the framework looks at the links of a chain of sectoral activities, interactions, and processes. In this way it identifies opportunities, actors, and incentives for corruption, and hence the corruption risks.

A risk map can help collect and put in perspective some basic information important for locating areas where anti-corruption work needs to be done. A risk map should answer questions such as:

- What are the main sources of funding for water supply delivery in the communities targeted for the study? Who controls budget decisions?
- Are significant resources being diverted by poor management or corruption?
- Are there inequities in service delivery based on biased allocation (by gender, geography, or other preference)?
- What are user perceptions of institutional performance in water services?
- What accountability and transparency oversight mechanisms exist?

A risk map is a systematic approach to ordinary analytical and decision-making processes. It can help to evaluate and compare risks among a set of actors or activities within an organisation and thus can help to identify priority risks areas for reforms. In the short term it can highlight the need for changes in operations. Risk maps also provide evidence to back up advocacy campaigns.

Another useful function of risk maps is that they can provide a link from one kind of anti-corruption work to another. This is especially useful if an organisation is familiar with anti-corruption advocacy in one area, for example procurement, and wants to do work in another area, such as the water sector. The risk map makes the connections obvious.

For a workable risk map, some in-depth knowledge of the sector is crucial and feedback from sectoral experts, quantity surveyors as well as end users may be necessary, even if none of these actors are actually doing anti-corruption work.

Hence risk mapping the whole of the water sector in a metropolitan area or river basin may be a task more suitable to academic institutions than anti-corruption activists. In the template provided below, the focus is on one aspect of water resource governance, the provision of household water supply. This can be seen as a template to be modified and adapted for other sectors and local context.

## **Template for water supply risk map**

### **a. Budget allocation: Planning the service delivery**

**Explanation:** The water supply and sanitation (WSS) sector has a number of characteristics making it susceptible to corruption, including the prevalence of large-scale construction and various types of monopolies, interfaces between public and private sectors, a technical complexity that limits the public's ability to participate in oversight exercises, as well as a high demand for water services.

Also giving rise to complications is the involvement of different institutions such as a regulator, a central government ministry, service-driven civil society organisations, and national and local water utilities, including community managed utilities and informal providers. Many of these have

overlapping jurisdictions. There are also different spatial and environmental institutions, for example those dealing only with river water abstraction or with state watershed management. In addition, depending on the political or social climate, water utilities do not depend exclusively on government or donor financing but may be revenue-earning organisations. This means that their financing comes not only from ministries and/or municipalities but also from the private sector commercial and industrial consumers and from household consumers.

### **Tools:**

- Desk study: National level allocation of resources, including:
  - To develop a simple financial model of the relevant utility or community water project that takes account of the existing and projected income and expenditures;
  - To build a description of the process for selection and approval of water projects;
  - Compiling an inventory of products and contractors involved in the water supply chain (pipes, cement, etc.);
  - Identification of major beneficiaries of donor-funded projects, for example borehole drilling, or slum upgrading programme;
  - Examination of whether drinking water subsidies seem to be aimed at one section of the population.
- Analysis of oversight mechanisms and data collected in B, C and D below.

### **Methodological issues:**

- Water sector finances, because of their institutional complexity, are not typically available in disaggregated formats (for example through published government budgets). Rather, governments often lump water budgets with agricultural water (irrigation/drainage), storage with distribution, operations with development, and often combine sanitation with water supply. Therefore, specific local analysis will be needed to understand the budget data.
- The Risk Map for the water supply sector needs to start with the specific institutional structure, including regulatory oversight arrangements, for the area in question in order to comprehensively map the supply chain and resource flows for water supply.
- Comprehensive budget tracking for the whole country is usually very difficult to obtain, so one solution would be to choose representative areas.
- Desk study should use available financial data and non-perception-based surveys.

### **Examples of corruption and resource leakage can be detected through:**

- Distorted site selection for service, boreholes, or abstraction points;
- Regional bias: more of the budget is spent on preferred ethnic group areas;
- Selection of uneconomical projects because of opportunities for financial kickbacks and political patronage. One example is the

diversion of resources *away* from rural/village water development (for example, boreholes at community level that particularly benefit the poor) and *toward* bulk (primary) supply, urban areas;

- Contractors influence policy priority to be placed on projects using surface water (and hence needing treatment plants) rather than using ground water as water treatment plants present opportunities for recurrent bribery, extortion, and fraud;
- Chronic lack of staffing in rural areas, with side payments for transfers of staff to preferred urban areas.

**b. Execution: How resources move from one level of use to another, for example from central to state or provincial to local level**

**Explanation:** At this level, the focus is on procurement. How are resources used to buy infrastructure components or engineering services? Various forms of procurement fraud include: Tailoring restrictive specifications or timing of project to suit favoured suppliers, consultants or contractors; non-competitive bidding; providing insider information; limited advertising of the contract; shortened bid periods and breach of confidentiality.

Non-corrupt 'resource allocation' can also be a factor if financing committed by the central government to a given utility is not effectively transferred. This part of the exercise will supplement the desk-based analysis, developing data through meetings, interviews, and other qualitative means.

**Tools:**

- Interviews with water supply officials at various levels;
- Access to information laws: derived information should be used to create opportunities for community participation in planning;
- Control and supervision: Auditing procedures of water authorities, increasing the frequency of water supply facility inspections;
- Procurement process: Are contracts tendered? Is illegal influence blocked? How do authorities enforce contract conditions on time and how do they enforce quantities and quality?
- Province-level budget data sheets (usually with water supply officials or by use of records), such as:
  - Level and sources of financing, as well as delays and procedures;
  - In-kind transfers (books, stationary, other supplies).

**Methodological issues:**

- Problems associated with the fact that state, district, or municipal level officials have only aggregated data for their spatial regions, and cannot or will not provide data broken down to the community level.
- Technical issues such as use of substandard or uncertified materials in construction can be difficult to address.

**Examples of corrupt resource leakage and mismanagement issues:**

- Purchasing officials of a utility, municipality, or district office might be bribed to tailor specifications (or the timing of the project) to suit favoured suppliers, consultants, contractors, and other private parties;
- Over-designed and overpriced projects to increase potential corrupt earnings during implementation;
- Embezzlement of funds;
- High administrative charges at each level of resource transmission (central to province to district or community) that saps significant resources away from service to end users.

**c. Utilisation: Provisions of water and service delivery**

**Explanation:** At the local water supply facility level, there are many factors other than corruption that divert resources from service delivery, including poor management. A Citizen Report Cards type survey activity can be used for spot checks to verify official charges, bribes, as well as management issues.

**Tools:**

- Citizen Report Cards (CRC) which ask consumers questions on:
  - Quantity and procedure for payment of water fees;
  - How consumer accountability structures are functioning;
  - Degree of access to information, consumer participation in planning, and monitoring water supply;
  - Perceived quality of water supply and problems (i.e. bribes paid for new connections, poor quality construction, preferential location of water project in public official's home area, preferential treatment for services and repairs);
  - Solutions proposed to problems.
- Service provider questionnaire used (water supply authority) to determine:
  - Problems in bribery to obtain access to water – installation, concealing illegal connections, avoiding disconnection, falsifying meter readings;
  - Possible solutions to solve problems;
  - Water supply governance, including how the community participates in governance and feedback;
  - Access to information on water supply finances, including knowledge of correct charges for water service and repairs;
  - Supervision: How often do water supply authorities consult community? Who conducts audits of books?
- Community-level budget data sheet (with local water authority or use of records) showing:
  - Quantities and sources of water, delays in service, procedures for new connections;
  - Expenditures by community on water.

**Methodological issues:**

- Consumer interviews used to understand perceptions of problems.
- Community level service provider survey is a mixture of perception of problems and data on procedures, activities.

**Examples of corrupt resource leakage and mismanagement issues:**

- Bribery in oversight in monitoring and control of urban pipe systems (meters, etc.).
- Service users may use contacts/money to get access to a service or better/faster service or else give 'tips' to service providers as a gesture from service users for a job well done; this might be at the discretion of users, but it can be customary, anticipated, or expected.
- Other petty corruption, including 'inaccurate' meter readings, and 'deficient' billing and collection.
- Officials may charge the user to pay for a service that is supposed to be carried out for free, based on the user's ignorance of official charges.
- Water supply officers selling or providing their legitimate services to people that do not qualify for service delivery (i.e. slum dwellers).
- Bribes for new connection to water service.
- Wasteful use of funds in sub-standard pipes that break or leak.

**d. Integrity oversight mechanisms to ensure accountability and transparency**

**Explanation:** The water supply sector has a characteristically fragmented institutional oversight since it crosses government departments for, among others, environment, health, urban development, agriculture, and infrastructure.

**Tools:**

- Regulator questionnaire:
  - A survey of selected officials in the institutions for water sector regulation, assessing independence, transparency, accountability, participation (staff, reporting lines, rotating directorship, asset disclosure, appeals mechanism, pro-poor focus).
- Elements of oversight assessment will be included in the previous tools:
  - Desk Study indicating oversight and complaints procedures
  - Province- and Community-level Service Provider Interviews indicate level of supervision, oversight by provincial auditors, etc.
  - Citizen Report Cards indicate level of consumer participation in oversight and accountability of water supply officials.

**Methodological issues:**

- Desk Study should include an overview of:

- Info available to the public on primary water supply finances;
- Existing access to information laws, including to local procedures and budgets;
- What the local development strategy or town planning for the area indicates;
- Water supply sector plans for the future;
- Auditing procedures, including scope for action on problem cases;
- Environmental rules about water use, as well as water sharing arrangements with neighbouring countries.
- Desk Study should assess external transparency mechanisms, such as access to information laws and regulations, mechanisms for consumer voice in planning of new water supply projects.
- Province and community-level service provider surveys should look at a wide range of internal mechanisms, tender bids read aloud in community meetings, the posting of planning blueprints, donor project documents, or water quality indicators uploaded to a public website, or service contracts and audit reports written in plain language and displayed at the local community board.

**Examples of corruption-related resource leakage include:**

- Bribery of auditors and falsification of evaluations and audits;
- Consumer representatives on community management committee are bribed to ignore fraud.

**Examples of non-corruption-related resource leakage include:**

- Under-funding of audit or oversight mechanisms means that no oversight carried out.

**Diagnostic checklist**

Along with the risk map, a diagnostic checklist serves as a tool to highlight problem areas. The checklist is derived from basic recommendations and points towards best practices for water sector governance. Each question on the checklist may not necessarily imply that corruption exists, but that there is absence of important safeguards. As such, these are good indicators that problems exist. The checklist looks at the sub-sectoral activity at the project level.

In the initial stages of project development, whether large scale like a hydropower scheme traversing watersheds, or smaller ones like a water and sanitation provision in a part of a slum, four fundamental questions must be asked:

1. *Are anti-corruption policies and actions built in from the very start?* Cleaning up afterwards is difficult and expensive.
2. *Is the local water context taken into account in planning?* One size never fits all in fighting corruption, and understanding local conditions is a prerequisite for devising effective reforms.

3. *Are the needs of the poor being met?* Fighting corruption is not at all at odds with the needs of the poor.
4. *Is corruption being tackled both from above and from below?* Leadership from the top is necessary to create political will and drive institutional reform but bottom-up approaches are equally needed to add checks and balances on those in power.

Apart from these initial important but generic questions, some questions need to be answered at the sectoral level. Many diagnostic questions repeat across sectors – for example questions about public participation and access to information. This indicates that these are very necessary tools for all anti-corruption work and all water sectors. The diagnostic questions are accompanied by a short explanation of why they may be considered important.

<b>Water Resources Management (WRM)</b>	
<ul style="list-style-type: none"> <li>▪ Are there formal mechanisms for public participation, along with transparency, in WRM decision-making process?</li> <li>▪ Are their clear criteria for decision-making that also recognise social and environmental factors?</li> </ul>	<i>Public participation along with an inclusive and transparent decision-making process is necessary so corruption does not take root.</i>
<ul style="list-style-type: none"> <li>▪ Are development projects designed so they do not reinforce local power structures which may underpin corrupt water-sharing arrangements?</li> </ul>	<i>Equity and entitlement are important factors in combating corruption.</i>
<ul style="list-style-type: none"> <li>▪ Do donors and international financial institutions adhere to proactive information disclosure and consultation for projects they finance?</li> <li>▪ Do such donors and international financial institutions have effective sanctions against corrupt employees and contractors?</li> </ul>	<i>Will donors practice what they preach and set an example by being open and taking action against violators?</i>
<ul style="list-style-type: none"> <li>▪ Is information on water flows and environmental dynamics easily available so that implications of WRM-related decisions are easily understood?</li> <li>▪ Is such information used to encourage decision-making that considers all stakeholders in a shared river basin context?</li> </ul>	<i>Sometimes planning processes may be susceptible to manipulation just because information is difficult to access, too technical and jargon-ridden.</i>
<ul style="list-style-type: none"> <li>▪ Are civil society initiatives to name and shame possible in places where powerful local corruption networks thwart environmental enforcement?</li> </ul>	<i>Threats of exposure may be useful in limiting corrupt practices.</i>
<ul style="list-style-type: none"> <li>▪ Can communities be trained for more accountable watershed management?</li> <li>▪ Is the government undertaking institutional reforms that clarify the WRM responsibilities of different agencies?</li> <li>▪ Apart from new laws or agencies, is there strong capacity-building among traditional institutions and regulatory bodies?</li> </ul>	<i>Accountability practices can be taught.</i>  <i>One reason the water sector is prone to corruption is that there are usually too many institutions with fragmentary but absolute discretionary powers. In many cases reviving traditional institutions</i>

	<i>may counteract this.</i>
<ul style="list-style-type: none"> <li>Are there transparent administrative systems with checks and balances, including mechanisms for citizen complaints?</li> </ul>	<i>If citizen complaints are followed up, there may be fewer chances for corrupt officials.</i>
<ul style="list-style-type: none"> <li>Are there international agreements that may provide an entry point for public pressure?</li> </ul>	<i>Showing that a government is not living up to a ratified international agreements may be embarrassing and result in action</i>
<b>Water and sanitation</b>	
<ul style="list-style-type: none"> <li>Do anti-corruption strategies match the capabilities of different water stakeholders?</li> </ul>	<i>One size fits all rarely works for anti-corruption strategies, which need to be context and scale specific.</i>
<ul style="list-style-type: none"> <li>Do such strategies exist at different levels of governance?</li> </ul>	
<ul style="list-style-type: none"> <li>Could some aspect of local level corruption be fought through legalisation?</li> </ul>	<i>In some cases legalising local water service providers may be the best solution.</i>
<ul style="list-style-type: none"> <li>Is there integrity and professionalism among the water service providers, as shown by publicly displayed codes of conduct or citizen charters?</li> </ul>	<i>Having standards they need to conform to may mean complaints against officials and contractors can be more actionable.</i>
<ul style="list-style-type: none"> <li>Is the right to water an enforceable entitlement that can be used to hold authorities to account for corrupt water policies and dysfunctional delivery systems?</li> </ul>	<i>Court action can be used to force officials to provide corruption-free water.</i>
<ul style="list-style-type: none"> <li>Are there local, state, or national access to information laws?</li> </ul>	<i>Access to information is often the best tool against corruption in all fields.</i>
<ul style="list-style-type: none"> <li>Are anti-corruption activities pro-poor rather than just oriented towards technical or financial solutions?</li> </ul>	<i>Often governments, engineers, and service providers look for technical solutions as universal panaceas for governance. This may not help provision expansion to cover the poor, who will have to resort to corrupt water to ensure that they get something at all. The poor and marginalised cannot be an afterthought, and their needs and voices have to be taken into account if a corruption-free water service is to be achieved.</i>
<ul style="list-style-type: none"> <li>Are their initiatives to strengthening the voice and participation of the poor in water governance?</li> </ul>	
<ul style="list-style-type: none"> <li>Are poor citizens at the centre of service provision and are their concerns heard?</li> </ul>	
<ul style="list-style-type: none"> <li>Are there efforts to overcome the traditional exclusion of women and other vulnerable citizens from participatory processes?</li> </ul>	
<ul style="list-style-type: none"> <li>Is there pro-poor regulatory oversight and performance-based monitoring by investigative authorities with enforcement power?</li> </ul>	
<ul style="list-style-type: none"> <li>Are their local initiatives and mechanisms for citizen participation and monitoring?</li> </ul>	
<b>Water for food</b>	
<ul style="list-style-type: none"> <li>Is it possible to restructure incentive systems instead of just adding on piecemeal irrigation reforms?</li> </ul>	<i>Once an incentive system is in place changing parts of it may only shift corrupt activities instead of getting rid of them.</i>
<ul style="list-style-type: none"> <li>Is there political participation and empowerment of marginalised groups?</li> </ul>	<i>As in all sectors, spreading around decision-making powers ensures that corruption is seen as hurting everyone</i>
<ul style="list-style-type: none"> <li>Is there research that helps expose inequities implicit in water subsidies?</li> </ul>	<i>Subsidies may not always help the marginalised but in fact may be a form of collective corruption.</i>
<ul style="list-style-type: none"> <li>Can social audits be done regularly for</li> </ul>	<i>Social audits can be useful in</i>

collective oversight?	<i>exposing inequities.</i>
<ul style="list-style-type: none"> <li>For protection against extortion and corruption, can marginalised voices be bundled into a recognised user group?</li> </ul>	<i>Collective strength will be more effective than lone voices.</i>
<ul style="list-style-type: none"> <li>Can different management tasks be rotated so they are fulfilled by different social and age groups within the community?</li> </ul>	<i>Rotating tasks and re-tendering ensures cronyism does not become established.</i>
<ul style="list-style-type: none"> <li>Can outsourced services be re-tendered at regular intervals?</li> </ul>	
<b>Hydropower</b>	
<ul style="list-style-type: none"> <li>Can anti-corruption coalitions between all stakeholders be formed?</li> </ul>	<i>If the benefits of any project are equally distributed there will be fewer incentives for corruption, especially if stakeholders are involved from the actual project selections stage to ensure that inappropriate projects selected by vested interests are not given priority.</i>
<ul style="list-style-type: none"> <li>Can accountability be promoted through financing instruments and revenue-sharing governance?</li> </ul>	
<ul style="list-style-type: none"> <li>Is there transparency and public participation in the planning process including the early option selection stage?</li> </ul>	
<ul style="list-style-type: none"> <li>Are there time-bound strategies and measurable indicators of progress?</li> </ul>	<i>Will it be noticed if things start going wrong?</i>
<ul style="list-style-type: none"> <li>Are there ethical codes of conduct for key officials, including asset declaration and the publication of representation limits for senior staff?</li> </ul>	<i>Transparency is needed at all levels of management.</i>
<ul style="list-style-type: none"> <li>Can project and sectoral governance be strengthened by standard anti-corruption tools, including risk-mapping, <i>Integrity Pacts</i>, formal compliance plans and disclosure standards for all project elements? Are such available tools actually being used?</li> </ul>	<i>There are many anti-corruption and integrity tools available to this and other sectors, what matters is making sure they are used and not just talked about.</i>