METHODS FOR STUDYING RURAL INSTITUTIONS, NETWORKS, AND CAPACITY IN THE DEVELOPING WORLD: MOBILIZING RURAL INSTITUTIONS

This note outlines two methods developed by the Mobilizing Rural Institutions study to assess and compare the governance capacities of local institutions and their network relationships in any local context. Local institutions and their institutional networks play a fundamental role in shaping governance and livelihoods outcomes in rural areas, particularly for more marginal and disadvantaged populations. A review of local institutions in nearly 50 cases in 5 countries found that network relationships and linkages among local and external institutions were a key element in promoting governance and livelihoods, as well as more equitable allocation of benefits. Yet despite the consensus that local institutions and their links with other institutions are important in development and conservation efforts, we lack tools to assess and compare networks of local institutions, the strength of their links, and how these contribute to livelihoods outcomes. This note identifies two such tools to help identify leverage points through which new policies can be introduced to maximal effect, and to select appropriate local institutional partners for policy and projects. The first section summarises two key findings from the report on institutional linkages, governance and livelihoods outcomes. The second section describes the Institutional Network Analysis tool. The third looks at the IAPA (Inclusion, Accountability, Participation and Adaptability) governance index. The final section draws conclusions and identifies recommendations for how the two indexes can be a useful tool for policy and implementation projects that view local institutions as an important partner in development efforts.

This note presents two methodological tools generated by a multi-country study on Mobilizing Rural Institutions study supported by the TFESSD. The study examined the role of local rural institutions and institutional networks in shaping governance and livelihoods outcomes in rural areas in five locations: Afghanistan, Ethiopia, Orissa in India, Vietnam, and Yemen. Nearly fifty distinct local institutions from three different domains were examined: agricultural production (rural producer organizations, cooperatives and self-help groups), natural resource management institutions (irrigation and forestry), and local governance (elected and appointed bodies).

Key findings of the study
One of the major findings of the study is that stronger institutional linkages play a positive role in improving the distribution of livelihood benefits and in enhancing livelihoods. Local institutions are often isolated and without the necessary linkages to the right sources of information, skills and resources to achieve their goals. The review of 50 cases in 5 countries found that stronger links among different local institutions, and with higher level institutions, can compensate for missing competence or resources in any single institution by permitting it to draw upon resources available from other institutions to which it is linked.

Linkages improve the distribution of livelihood benefits from local institutions. When linkages are distributed across multiple institutions, and when there are a number of different institutions in the local context, there are greater possibilities for more equitable institutional performance through the influence of the different institutions on the focus...
institution. It is more difficult for any single institution to be the sole influence on livelihoods outcomes, or for a single social group to dominate all institutions. Table 1 below provides summary association measures for the strength of institutional linkages and livelihoods outcomes.

Table 1: Association between Institutional Linkages and Livelihoods Outcomes

<table>
<thead>
<tr>
<th>Livelihoods outcomes →</th>
<th>Livelihoods Improvement</th>
<th>Equity in Benefit Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strength of Institutional Linkages</td>
<td>0.19</td>
<td>0.35</td>
</tr>
</tbody>
</table>

**Governance and livelihood outcomes**

A second key finding of the study is that there are tradeoffs between different aspects of governance (inclusion, participation, accountability and adaptability), and that it is important to assess and compare the governance capacity of different local institutions, and to identify capacity gaps in those areas that need to be addressed. Although it is customary to talk about governance as if it is a single outcome, field work undertaken during the research shows tensions and tradeoffs between different aspects of governance (inclusion, participation, accountability and adaptability). The research identified only a small positive correlation between higher levels of governance and improvements in livelihoods. The study found strong evidence that better performance on accountability is positively associated with greater equity in the distribution of livelihood benefits. Higher levels of downward accountability are directly related to more equitable allocation of benefits. Greater accountability improves the distributive impacts of institutions, as members can shape decision making to take the interests of participants into account (see table 2).

Table 2: Association between Governance and Equitable Outcomes

<table>
<thead>
<tr>
<th>Livelihoods outcomes → Aspects of governance ↓</th>
<th>Livelihoods Improvement</th>
<th>Equity in Benefit Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inclusion</td>
<td>0.17</td>
<td>0.01</td>
</tr>
<tr>
<td>Participation</td>
<td>0.02</td>
<td>0.47</td>
</tr>
<tr>
<td>Accountability</td>
<td>0.27</td>
<td>0.60</td>
</tr>
</tbody>
</table>

The study found a lack of analytical methods that can systematically assess local institutional capacity and linkages in project areas. Despite the consensus that local institutions and their linkages play a fundamental role in shaping livelihoods and channeling resources, particularly to vulnerable and disadvantaged groups, we lack tools to map the range of local institutions in a given context, assess the nature and strength of their linkages, and how these contribute to livelihoods outcomes.

1. **Methodological tools for assessing linkages and governance**

The study has generated two methodological tools to assess and compare the governance capacities of local institutions, the strength of their linkages, and their contribution to livelihoods outcomes. The first tool - Institutional Network Analysis (INA) – focuses on the network relationships of institutions to other institutions and major social groups. The second tool – the Inclusion, Accountability, Participation, and Adaptive Capacity (IAPA) governance index – focuses on a rapid assessment of the governance contributions of institutions. In combination, the information about institutions and their links can present a comprehensive picture of the institutional context within which policy interventions must unfold at a local level. This is helpful to identify leverage points through which new policies can be introduced to maximal effect, and to select appropriate local institutional partners for policy and projects.

2. **Institutional Network Analysis and Mapping**

Institutional mapping for rural governance and livelihoods is the visual presentation of different institutions and their relationships in a given social context. It is a powerful visual tool that provides an immediate sense of institutions and their links in a given context (box 1).

**How to construct the local institutional map**

**Step 1:** The first step in institutional mapping is to identify the set of institutions in a given rural context. In this study, institutions are broadly conceived as rules that structure interactions and expectations by providing the incentives for human actions. The report used a rural institutional typology that identifies three major categories of local organizations found in rural contexts: civic, public, and private, in their formal and
informal form. The framework in Table 3 below can serve as a checklist to identify institutions in a location.

Table 3. Checklist to identify institutions (step 1)

<table>
<thead>
<tr>
<th>Public (State)</th>
<th>Market (private)</th>
<th>Collective (civil society)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local agencies</td>
<td>Service organizations (e.g. NGOs and charities)</td>
<td>Membership organizations (e.g. savings and loan groups)</td>
</tr>
<tr>
<td>Local governments</td>
<td>Private businesses</td>
<td>Cooperatives</td>
</tr>
</tbody>
</table>

Informal

1. Discussion meetings
2. Political party networks
1. Marketing arrangements
2. Technology sharing arrangements
3. Share cropping arrangements
1. Community based organizations
2. Self help groups
3. Savings and credit associations/revolving funds
4. Caste institutions

Box1: Example of institutional mapping:
For a given village/settlement with five institutions, one might generate a table as below. The numbers in each cell indicate whether the link between the row institutions to the column institutions exists, and whether there is a flow of information, influence, and resources. The information can be condensed by summing up the positive links so as to yield an overall indicator of the strength of each link. The map indicates for example that there are no links between extension and credit groups, and that the strongest links are between credit and irrigation, and between marketing and extension groups.

Table 2: Hypothetical data for institutions in a given context

<table>
<thead>
<tr>
<th>Mktg Coop</th>
<th>Labor sharing group</th>
<th>Irrigation instr.</th>
<th>Extension agency</th>
<th>Rotating Credit group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing Coop</td>
<td>1, 0, 1, 1</td>
<td>0, 0, 0, 0</td>
<td>1, 0, 1, 1</td>
<td>1, 0, 0, 1</td>
</tr>
<tr>
<td>Labor sharing group</td>
<td>1, 0, 0</td>
<td>1, 0, 1, 1</td>
<td>0, 0, 0, 0</td>
<td>0, 0, 0, 0</td>
</tr>
<tr>
<td>Irrigation instr.</td>
<td>1, 0, 1</td>
<td>1, 1, 1, 0</td>
<td>0, 0, 0, 0</td>
<td>1, 0, 1, 1</td>
</tr>
<tr>
<td>Extension agency</td>
<td>1, 0, 0</td>
<td>1, 0, 0, 0</td>
<td>0, 0, 0, 0</td>
<td>0, 0, 0, 0</td>
</tr>
<tr>
<td>Rotating credit group</td>
<td>0, 0, 1, 1</td>
<td>1, 0, 1, 1</td>
<td>0, 0, 0, 0</td>
<td>0, 0, 0, 0</td>
</tr>
</tbody>
</table>

Step 2: Once the relevant institutions have been identified, mapping them requires basic information about the links and relationships between institutions. Such information can be collected in focus group discussions with the most important institutional stakeholders. This should cover at least four aspects: (i) whether a link exists, and whether there is a flow of (ii) information, (iii) influence, or (iv) resources. If any of the above aspects of a link is answered positively, it can be coded as 1, and if it is absent, it can be coded as 0.

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Step 3: Using this information, maps for institutional relationships in a given context can easily be generated with the help of mapping software. In the figures below, institutions and groups are represented as nodes, and their links as ties. The strength and direction of the links among institutions are shown through arrowheads and thickness of the connecting lines. It also shows the relative capacity of the different institutions and groups through the size of the nodes. In addition, the square shape of three of the nodes denotes that they are informal institutions while the circular shape denotes formal institutions. Information on the governance capacity of each institution (as denoted by the IAPA index, see below) can be added to supplement the information. In the figure below, the governance capacity of the labor and extension groups is so small as to be almost invisible, while marketing and irrigation groups have the greatest governance index scores. Institutional maps can thus pack a lot of interesting information about institutions, their capacities, and their links. (see box 2.)

Box 2: Institutional density and distribution of benefits

In the Vietnam case, the number of local institutions in the studied locations is small, and a single institution dominates institutional interactions. In the map below, the Phuong Dong Cooperative group is well connected to many of the other institutions and economic actors. But the domination of the social context by one institution implies that institutional linkages are weak for other institutions, that the flow of resources, information, and influence is being mediated by the dominant institution, and that external interventions would need to contend with the dominant institution. If the dominant local institution is not functioning well, other institutions would be unable to take up the institutional slack. The profit motivation of some of the cooperatives leads them to channel benefits to a smaller group of people. Where the cooperative is more inclusive, it is less able to be accountable to its membership.

3. Inclusion, Accountability, Participation and Adaptability (IAPA) Governance Index

The study developed a governance index that can be used to assess and compare the governance capacity of different local institutions along four dimensions – inclusion, accountability, participation and adaptability. It can help identify strengths and weaknesses in each area for capacity building, and address questions about whether high governance capacity is correlated with high livelihoods related outcomes.

The IAPA (Inclusion, Accountability, Participation, and Adaptability) governance index focuses on four aspects of governance: Inclusion, Accountability, Participation, and Adaptability. The combination of the component scores creates the IAPA governance index. The numerical value of the index is itself a measure of the governance capacity of the given institution.

How to Construct the IAPA Governance Index

The construction of the IAPA index relies on information that can be collected in a short focus group discussion with institutional stakeholders. The following dimensions are covered by the index, summarized in Box 3 below:

Inclusion

Two aspects of inclusion make up the Inclusion score, which is the simple average of these two numbers:

- **Coverage** refers to the extent to which members of the group supposed to be covered by the institution are actually included as members or beneficiaries. The coverage ratio is the percentage of households included by the institution, i.e., the ratio between the number of households that are eligible to be covered by the institution, and the number of households that are actually covered by it.

- **Access** refers to the extent to which the institution focuses on marginalized members in the area of its operation. The Access Ratio is the number of marginal households covered in the area of the institution's operation (e.g., indigenous groups, caste, women-headed households, or the poor, depending on context).

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2 Marginality can be defined in relation to indigenous groups, caste, women-headed households, or the poor, depending on context.)
by the institution as a proportion of the number of marginal households in the settlement.

Accountability

Two aspects of accountability make up an institution’s accountability score:

- **Information sharing** refers to the extent to which the leaders of the institution share information about institutional activities and performance with rank and file members. Four areas of the institution are critical to information sharing for holding decision makers accountable: (i) the institution’s strategic direction; (ii) finances, (iii) personnel changes, and (iv) decision making. Sharing of information in a given time period about any of these areas yields a score of 0.25, and if decision makers share information in all the four areas, the measure should be scored as 1.0.

- **Sanctions**: Accountability is the ability to sanction decision makers for inappropriate decisions or for non-performance. Decision makers can be accountable to superiors or to constituents – accountability to both implies a score of 1.0; accountability to one implies a score of 0.5.

Participation

For the purposes of the Index, participation refers to the extent to which the institution’s members are involved in the day-to-day activities and discussions of the institution. The index takes into account of two aspects:

- the frequency of meetings - the proportion of actual to desired number of meetings yields one score on the participation dimension.
- the involvement of members in meetings. The average attendance at meetings provides the second score for the participation dimension.

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**Box 3: Steps needed to calculate the IAPA Governance Index Scores.**

The score for each component of the index falls between 0 and 1. The index score is calculated by adding the score for each component and dividing by four.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Aspects</th>
<th>Potential information source</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inclusion</td>
<td>1. Information 2. Upward and downward accountability</td>
<td>1. Focus group discussion 2. Organizational records 3. household surveys</td>
<td>1. Member households as proportion of all eligible households 2. Marginal group member households as proportion of all eligible marginal group households</td>
</tr>
<tr>
<td>Accountability</td>
<td>1. Frequency of meetings 2. Attendance</td>
<td>1. Organizational byelaws; constitution. 2. Focus group discussion</td>
<td>1. Actual meetings as a proportion of desired meetings 2. Proportion of members attending meetings</td>
</tr>
<tr>
<td>Participation</td>
<td>1. Successful response to environmental challenges and opportunities</td>
<td>1. Focus group discussion</td>
<td>1. Proportion of challenges in different domains addressed successfully</td>
</tr>
</tbody>
</table>
Adaptability

Adaptability is the capacity of the institution to address challenges and opportunities in its environment. To assess organizational adaptability, it is necessary to identify the major challenges and opportunities that arose in the context during a specified past period; the different organizational functions that a given external challenge affected; and whether the organization was effectively able to address these threats or opportunities. An institution’s adaptability score is the proportion of challenges and opportunities it successfully addressed in different domains.

Final calculation on the IAPA index

To calculate the final score for the IAPA governance index, one adds the scores received in all the four dimensions and divides by four. The IAPA governance index for each institution can be mapped so that the size of each institutional node is proportional to the index score for that institution.

How to combine Institutional Mapping with Livelihoods and Governance Outcomes

It is possible through institutional mapping and network analysis software to undertake statistical analysis of the relationships between livelihoods scores and IAPA governance scores (see Table 4).

Institutional maps can be supplemented with information about how different institutions contribute to livelihoods. In a livelihoods framework, the influence of different institutional structures on livelihoods outcomes lead to changes in stocks of five forms of livelihoods capitals: human, social, physical, natural, and financial. We seek to identify whether the institution contributes to a particular form of capital, and score the institution between 0 and 1 based on the number of different types of capitals to which the institution contributes positively. Scored in this fashion, the IAPA score, and the score for contribution to livelihoods capital, both vary between 0 and 1. The information about the contribution to livelihoods capitals can either be listed next to the institution or incorporated within the node itself (box 4).

<table>
<thead>
<tr>
<th>Box 4: Findings on governance and livelihoods in India, Yemen, Ethiopia and Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td>The study found no clear linkage between better governance and improvements in livelihoods outcomes. Institutions with a high IAPA index are not necessarily the best performing in terms of livelihoods. Higher levels of inclusion and participation are negatively associated with effective institutional performance. The attempt to increase inclusion and provide benefits to a larger number of households reduces the ability of institutions to remain accountable to those they seek to serve, and also reduces their ability to provide benefits effectively. However it found that high inclusion and participation are associated with greater equity in distribution of livelihoods benefits. There is a strong association between improved inclusion, participation and accountability on the one hand, and greater equity in livelihoods outcomes on the other (see Table 4 below).</td>
</tr>
</tbody>
</table>

Table 4: Hypothetical governance and livelihoods scores for institutions

<table>
<thead>
<tr>
<th>Institution</th>
<th>Governance</th>
<th>Livelihoods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing Coop</td>
<td>0.75</td>
<td>0.7</td>
</tr>
<tr>
<td>Labor sharing group</td>
<td>0.4</td>
<td>0.9</td>
</tr>
<tr>
<td>Irrigation instr.</td>
<td>0.75</td>
<td>0.68</td>
</tr>
<tr>
<td>Extension agency</td>
<td>0.4</td>
<td>0.35</td>
</tr>
<tr>
<td>Rotating credit group</td>
<td>0.63</td>
<td>0.89</td>
</tr>
</tbody>
</table>

Conclusions and Recommendations

There are several important implications for development projects implemented by the World Bank.

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3 We use the past five years as a convenient period because it is likely to cover a length of time for which organizational stakeholders would have a clearer memory than for a longer duration, and also because it covers a duration of time in which at least some challenges or opportunities for the organization are likely to have emerged.

4 Opportunities and threats can affect a single domain of an institution, or more than one of six functional domains that can be affected by environmental opportunities and threats: (i) strategic planning; (ii) finance and accounting; (iii) operations and maintenance; (iv) human resources; (v) marketing; (vi) information management.

5 The index score can also be interpreted on its own through the following suggested terms: Superior or outstanding - 0.75 to 1.00. High - less than 0.75 but more than 0.5; Low - Less than 0.5 but more than 0.25; Minimal less than 0.25.
1. **Incorporate analytical methods that can systematically assess the nature of institutional linkages in project areas.** Implementation of development projects that rely on local organizations should be done after an assessment of existing institutional linkages – both among different types of institutions in the relevant sectors and across scales, but also of links of the relevant institutions to different social groups. An assessment of the capacities of potential institutional partners will improve the choice of partners. This note has described two such tools: Institutional Network Analysis, and the Inclusion, Accountability, Participation, and Adaptive Capacity Index of institutions.

2. **Facilitation of linkages**
   Effective external support to local institutions can come in many forms: financial, technical, logistical, skills and knowledge based, and training related. Our review of evidence from nearly 50 cases suggests that facilitating greater linkages across institutions – both within the locality and across levels so that local institutions are better articulated with higher level organizations - often costs little in monetary terms, but can greatly improve the effectiveness of local institutions.

3. **Identify which institutions are more inclusive of poorer, more marginalized groups in a given site.** Local institutions have different types of linkages to various social groups. In building such connections, it is important to identify which institutions are more inclusive of poorer, more marginalized groups in a given site. External interventions that channel greater support to more inclusive institutions or to institutions that are connected to disadvantaged social groups are more likely to generate equitable outcomes.

4. **Territorial development vision**
   Interactions and linkages among these institutions are critical to development outcomes within that territory in which institutions are located. The MRI report used its findings to build a vision of territorial development, in which local institutions and their interactions are critical for greater inclusion, accountability and resilience. Improved territorial development is likely to be facilitated by positive interactions among different institutions within the territory and the sectors in which these institutions are located.

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This note was prepared by Arun Agrawal, Catherine McSweeney and Nicolas Perrin (SDV). Additional copies can also be requested via e-mail: socialdev@worldbank.org