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## **Developing an auditing tool to measure community capacity of using market based instruments<sup>a</sup>**

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**Abstract:** Community capacity is essential for the design, development and implementation of MBIs, therefore it is important to be able to measure and monitor it over time. Community MBIs capacity audit is a means to identifying, developing and harnessing a community's capacity to strengthen and develop stakeholder's MBI awareness, and support local groups in achieving positive NRM and environmental outcomes.

In this paper, an auditing tool is proposed to profile and increase communities' capacity of using MBIs. The assessment provides sound quantitative results and graphic outputs that are easy for community individuals, groups and organizations to access and interpret. The profile allows a wide range of stakeholders to self-assess their MBIs capacity, from which will form the basis for community MBIs capacity-building strategic planning (eg, initiating relevant and targeted training and education programs).

**Keywords:** Auditing tool, Template, Market-based instrument, Community capacity, Capacity measurement

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## **1. Introduction**

Market-based instruments (MBIs) use market forces to achieve environmental and NRM policy objectives and specifically involve rights over public goods rather than private goods. Their use involves the creation of markets by government intervention to develop economic incentives for the valuing and protection of a range of environmental services and NRM outcomes (Wilson and Gueneau, 2004).

MBIs practices, however, are not suitable for every community or region because there needs a right time and right individuals and organizations to practise without losing control or negatively impacting local groups or various sectors of the community. Communities or regions without a strong profile to using MBIs must first focus on building and strengthening the capacities before taking drastic steps toward application of MBIs.

Moreover, MBIs alone may not lead to the desired change. Application of additional mechanisms is necessary to encourage and facilitate change, and may include:

- Capacity building activities (eg, provision of information and training to stakeholders to raise their awareness of MBIs);
- Environmental management systems that contribute to regional NRM outcomes through factoring environmental considerations into action planning at all levels; and
- Legal instruments that include incentives and disincentives (eg, tax rebates, rate relief, taxes and user charges).

## **2. MBIs and community capacity development**

Community capacity contributes to economic growth and social development in rural communities (Flora, 1998; Claude et al, 1999; Edwards et al, 2003). The importance of adequate community capacity building to support and facilitate MBIs practice has been well documented (eg, Cock et al, 2005; Grafton, 2005; Shi, 2006; Fonseca, 2008). In particular, institutional capacity building is essential as it not only helps people change their practice and attitude through MBIs implementation but also facilitates organizations understand and deal with stakeholder development needs and NRM issues in a broader context and in a sustainable manner (Shi, 2007).

The international development literature these days seems to prefer the term *capacity development* over *capacity building*, arguing that the former focuses on the question of sustainability, and recognises the long term timeframes involved, that change is evolutionary and incremental, and holistic strategies are needed (Smith, 2005). Capacity development is the processes by which individuals, groups, organizations, institutions, societies and countries develop their abilities, individually and collectively, to perform functions, solve problems, set and achieve objectives, and understand and deal with their development needs in a broader context and in a sustainable manner (UNDP, 1997).

Community capacity development emphasizes the ability to mobilise knowledge and techniques and the ability to construct referential frameworks of action or models of performance that enable diagnosis or productive problem solving not foreseen or prescribed (Fonseca, 2008). In fact, community capacity development is an active leaning process.

MBIs practitioners must be involved and individually responsible for the design, development and implementation of this type of new policy instrument that is introduced and not simply handed down from above. It is important to note that required changes associated with a shift to MBIs practices will never be lasting if those changes are imposed in an authoritarian way. History indicates that if external support is the main mechanism behind a type of agricultural or NRM practice, that practice could not be sustained when the support stopped (Shi and Gill, 2005). This perspective suggests that local control over resources, local participation in decision-

making and empowerment of people in local communities should be the top priorities in MBIs practices.

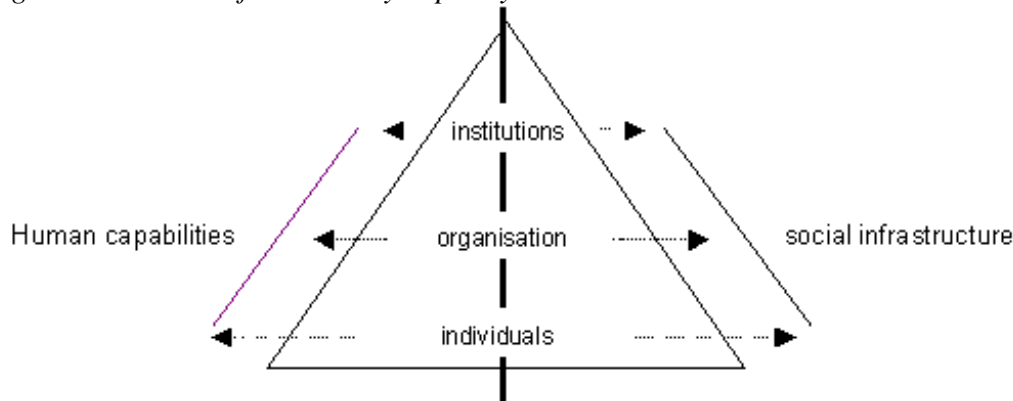
The strength of MBIs lies on the participation of community people who are the most appropriate people to design, develop and implement new MBIs and to experiment with changes in their environmental and NRM practices. Participation implies a process of respecting and drawing upon local communities' own understanding of, and interactions with, the natural and social environments, and regarding local knowledge as vital to the construction of sustainable environmental and NRM practices. However, there is limited community capacity for market participation. Many stakeholders lack marketing skills, technical knowledge and financial resources for participating in emerging markets (Wilson and Gueneau, 2004).

### 3. Measurement of community capacity

In view of the evidence that community capacity is essential for the design, development and implementation of MBIs, it is important to measure and monitor it over time. No two communities are the same. As a general rule, each community seeks to balance different roles taking into account its own characteristics. This makes it different to reach a consensus on the subject, scope and form of capacity development for MBIs practices. The measurement of community capacity is a starting point for adequate capacity development for MBIs practice. It aims to identify and develop the most relevant elements to facilitate using MBIs (NRMMC, 2002).

Community capacity comprises the *resources* that a community can potentially use, and the community's *ability* to use them in changing economic, social, and environmental contexts (Aspen Institute, 1996). According to Cock et al (2005), a community is made up of its institutions, organisations and its people and the capacity of the community is the sum of the *human capabilities* (eg, leadership, communication, strategic thinking and professional and technical expertise) and the *social infrastructure* (eg, financial and human assets, physical infrastructure, the talents of individuals and organisations, relations between people and between organisations, access to services outside the community, and community attitudes) (see Figure 1).

Figure 1. A model of community capacity



Source: Cock et al, 2005.

Community MBIs capacity audit is a means to identifying, developing and harnessing a community's capacity to strengthen and develop stakeholder's MBI awareness, support local groups in policy and community development, and facilitate the use of MBIs to achieve positive NRM and environmental outcomes.

In this paper, an auditing tool with the electronic template is proposed to measure community capacity of using MBIs. The template presented here is adopted from Cock et al (2005) and

draws heavily from the work of Cheers et al (2005) in their Community Capacity Audit Project that designed to measure community capacity for various purposes (eg, supporting the development of health and human services, delivering NRM outcomes or building community capacity per se).

#### 4. Proposed auditing tool

##### 4.1. Main components

The auditing tool is developed in response to a need to profile a community's capacity of using MBIs. The information used in the assessments will usually encompass both quantitative and qualitative data sources. The assessment aims to provide sound quantitative results and graphic outputs that are easy for community stakeholders to access and interpret. In addition, the profile allows the stakeholders to rank the strengths and weaknesses of the community, from which will form the basis of community MBIs capacity-building strategic planning (eg, initiating relevant training and education programs).

##### 4.1.1. The template

The template can be written in Microsoft Access and is the data that collectively entered by people from a community in interaction with each other rather than by a sample or population of individual respondents. The template is organised according to sectors (eg, primary industry, employment, and education and training) and capacities (eg, management and leadership).

Figure 2. Template capacity screen for the capacity mass in the social organisation sector

**SOCIAL ORGANISATION SECTOR**

What is your assessment of your community's capacity in the Social Organisation Sector using the indicators provided? Indicate your assessment by clicking whether you 'strongly disagree', 'disagree', 'agree', or 'strongly agree' with the following statements using the indicators provided.

**This community has the community and economic development organisations and services it requires.**

☐ Strongly Disagree ☐ Disagree ☒ Agree ☐ Strongly Agree

Assess your community's capacity in the Social Organisation Sector using the indicators provided.

	Strong	Weak	Irrelevant
Number of organisations and services	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Range of organisations and services	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Organisations include, e.g.: community development organisations, economic development organisations, chambers of commerce, business development organisations, service clubs (e.g. Lions, Apex).

**CONFIDENCE LEVEL**  
How confident are you in this assessment?

☐ Extremely Confident  
☒ Confident  
☐ Some Confidence  
☐ Not Confident

**IMPORTANCE**  
How important is this capacity in auditing your community's total capacity?

☒ Extremely Important  
☐ Important  
☐ Minor Importance  
☐ Not Important

Additional Comments: (no more than 5 brief dot-points)

Show Results Next

Options > Social Organisation > Mass -- Statement No: 54

Source: Cock et al, 2005.

##### 4.1.2. Sectors

A sector is defined for the template as a sphere of human activity (ie, a specific type of practice in a community). The template can be partitioned into eleven sectors (ie, social organization, primary industry, business, financial services, education and training, employment, environment, health/human services, sport/recreation, arts/entertainment, and religion), and each will be described on the initial screen for that sector.

#### 4.1.3. Capacities

Sixteen capacities are identified for the template (ie, mass, programs, access, information, marketing, financial resources, human resources, facilities, equipment, management, leadership, networks and relationships, government, politics, social capital, and attitudes). For each capacity, the template also records community perceptions of four sub-capacities:

- Capacity strength (CS)
- Capacity importance (CI)
- Capacity contribution (CC)
- Capacity confidence (CO)

For each of these, the mean of sub-capacity scores for the variable is taken as the score for that capacity in the sector. Figure 2 presents a mass capacity screen in the social organization sector to illustrate how the scores are presented on the template.

Figure 3. Overall sector profile for Community X

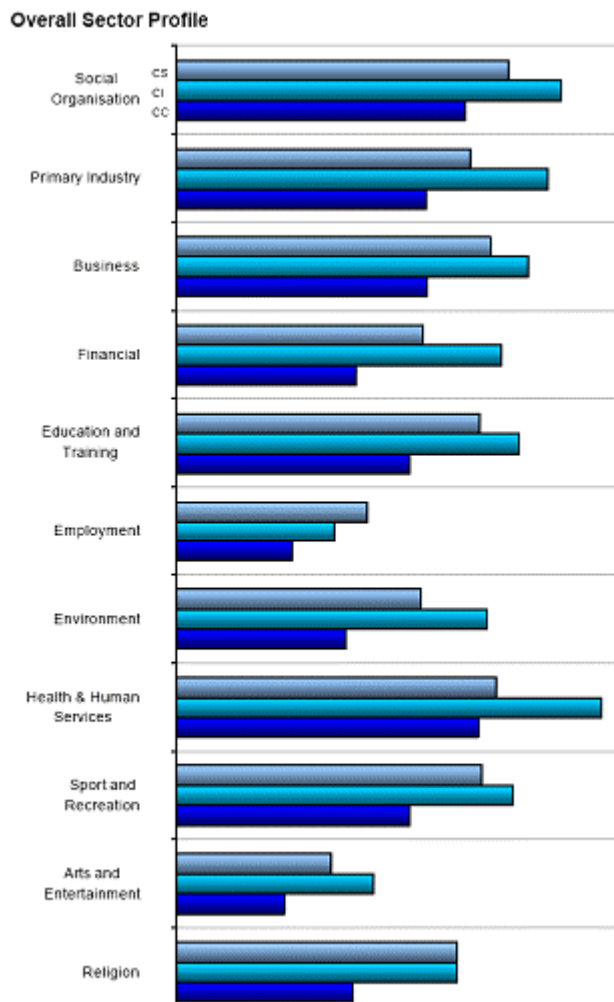
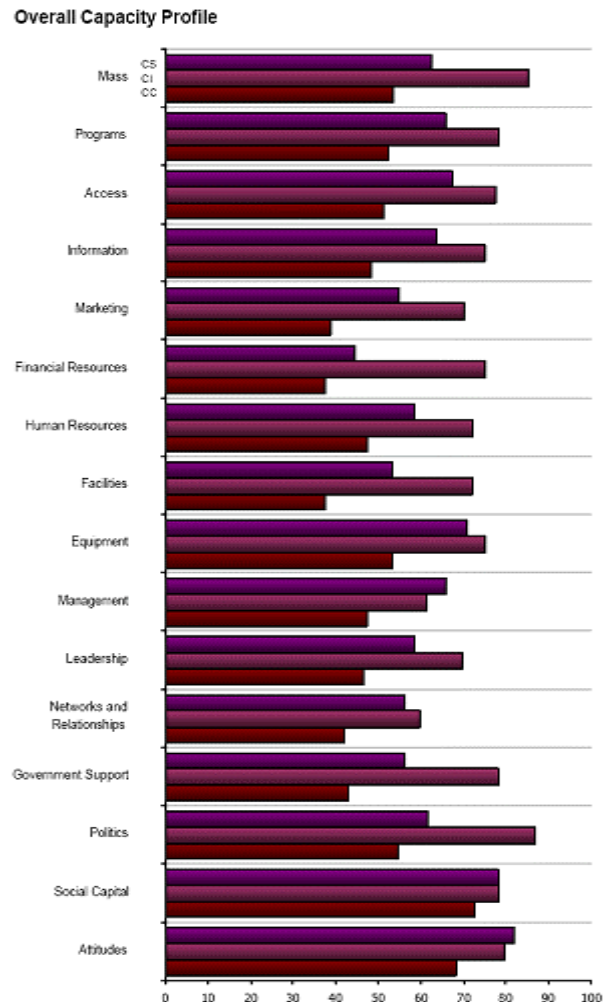


Figure 4. Overall capacity profile for Community X



Source: Cock et al, 2005.

#### 4.1.4. Capacity assessment and audit

In consultation with each community, the researchers will draft statements to present each capacity on the template, devise a scale to measure their strength, and draft indicators for discussion at following community workshops. During these workshops, a final review of capacities and indicators will be conducted, change statement wording, make final decisions

about scales to be used on the template, and review draft descriptions for each sector. The researchers then finalise capacity assessment.

The template produces various outputs, each of which contains a set of quantitative and graphic reports that present a profile of a particular component of the community's capacity. All quantitative reports are presented in terms of actual performance as a percentage of the total possible performance for the variable (eg, a score of 50% for the strength of the capacity leadership in the education and training sector means that it is only 50% of what it would be if it were fully strong). The most immediately useful reports are:

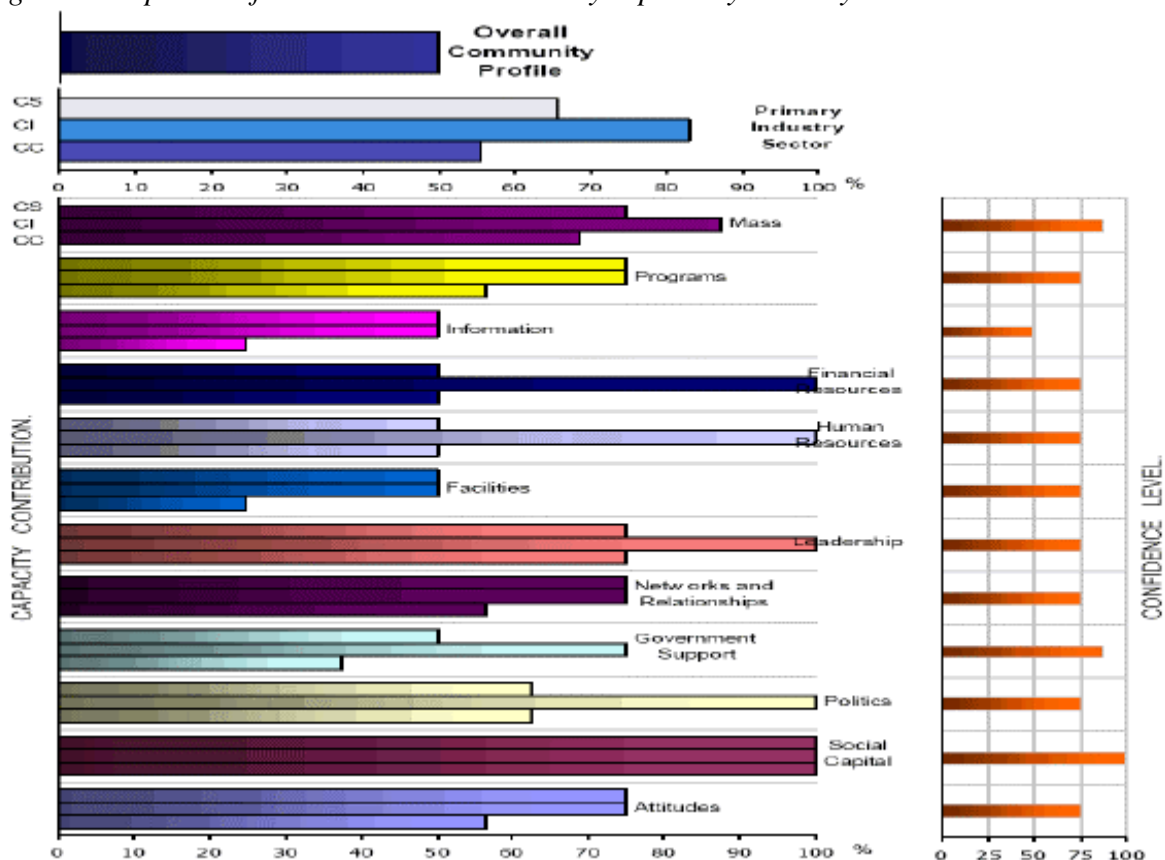
- Overall sector profile (eg, Figure 3)
- Overall capacity profile (eg, Figure 4)
- Capacities for the sector (eg, Figure 5)
- Sectors for the capacity (eg, Figure 6)

Each community then conduct a community capacity audit. Graphic outputs that generated from the template (see the example below) are used in planning workshops to review each community's capacity profile and develop capacity-strengthening strategies.

#### 4.2. An example of using the tool

The proposed auditing tool aims to enable communities to self-assess their MBI capacity in order to determine the strengths and areas for development. The process incorporates the use of an electronic tool and extensive reporting back to participants at different levels (eg, policy makers, NRM managers, and individual MBIs practitioners).

Figure 5. Capacities for the sector – Community X primary industry sector



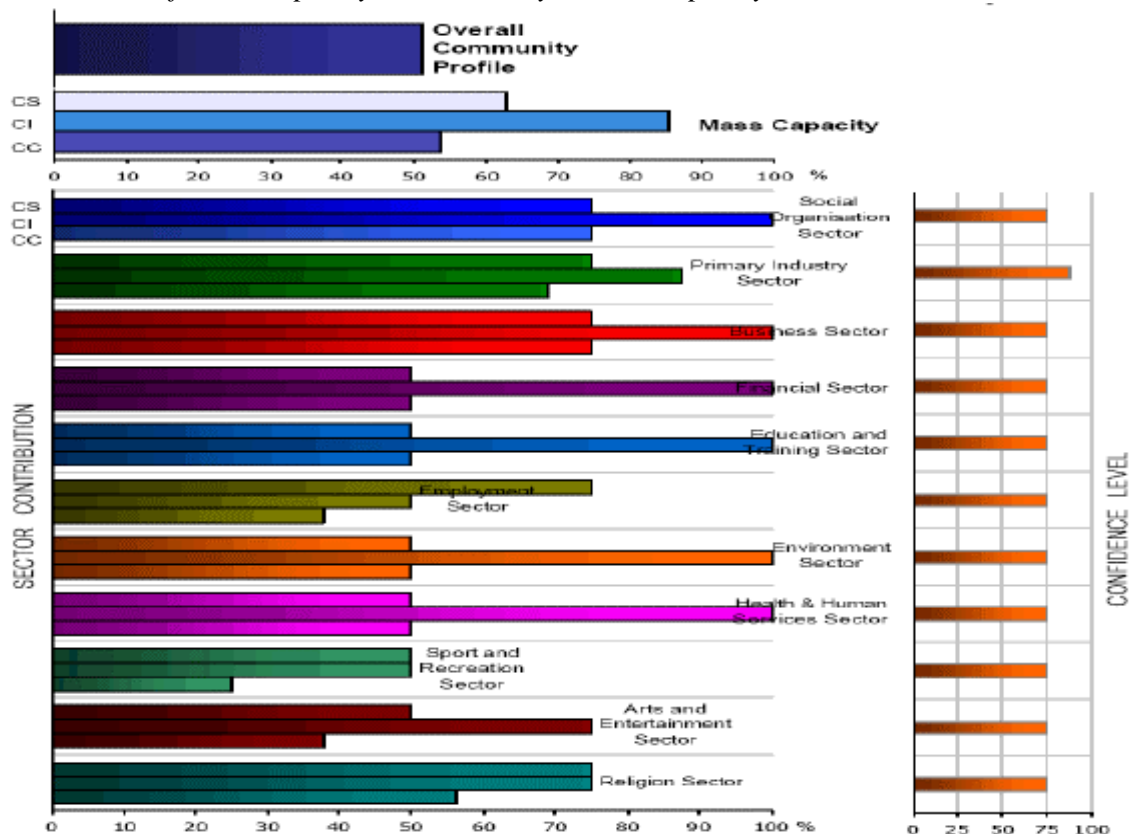
Source: Cock et al, 2005.



Figure 5 presents the capacities for the primary industry sector report for Community X. Total community capacity strength for Community X is a moderate 50%, which means that the community is performing at half of its maximum possible strength. As a sector, *primary industry* is performing better than this at around 65%. The auditors considered that this sector is highly important to total community capacity (over 80%). Given that the primary industry sector is so important but its capacity strength is moderate, this sector was contributing only around 55% of its potential to total community capacity. Therefore, increasing the capacity of this sector would be a high priority.

Then the next question is which particular capacities should be prioritised to increase community capacity? From Figure 5, the poor performers in relation to capacity strength are *information*, *financial resources*, *human resources*, *facilities*, and *government support*. However, judging from the capacity importance (CI) scores, while all capacities are of some importance to the community's total capacity, the sector can get by without improved access to information and facilities. Given the importance, the sector urgently requires increased financial resources, human resources, and government support. These would be the highest priority for the people of Community X.

Figure 6. Sectors for the capacity – Community X mass capacity



Source: Cock et al, 2005.

Also illustrated from Figure 5, local primary industries tend to have sufficient industry support services and local enterprises (*mass*), there is strong local *leadership* in the industry, and the sector uses strong *networks and relationships* within local primary industry, between the industry and other sectors in the community, and between the industry and the world outside the community. There is very high *social capital* in the industry and the community has positive *attitudes* toward the growth of local primary industries.



In view of capacity confidence (CO) scores on the right-hand side, this community can develop and implement capacity strengthening strategies with reasonable confidence. The exception is the capacity *information*. While strategies to increase this capacity can be developed and implemented, the community should continue to seek further information relating to its indicators.

#### *4.3. A summary of features of the tool*

The auditing tool is intended to support capacity development of communities and stakeholders to assist them design, develop and implement MBIs by:

- Providing a comprehensive picture of the community that can be used to leverage funding and support for strategic local MBIs actions;
- Enabling a region or community to focus on shared priorities rather than specific interests;
- Building up a stronger community that understands its capacity to manage change and focuses on shaping its future; and
- Engaging the communities and stakeholders to participate and providing an ideal learning tool to support and facilitate capacity development process.

### **5. The way forward: ideas for further development**

The general concept and template of the auditing tool presented in this paper only provide a starting point to examine and assess a community's capacity to support MBIs practice. In practice, the template needs to be used with relevant modifications when assessing a community capacity of using particular types of MBIs and for other specific objectives. In terms of the further improvement of the tool, several issues need to be followed up:

- Need a panel of experts to review the template and underpinning concepts for ongoing improvement;
- Conduct trial audits in more communities that include groups (eg, aboriginal people) and sectors (eg, arts and entertainment) that were not included in initial audits to identify and correct discrepancies; and
- Use the auditing tool at regular intervals to develop community MBIs capacity development strategies that designed to increase capacity, implement MBIs, and monitor outcomes over time.

As the template is developed to assist communities to profile their capacity with respect to a particular purpose of using MBIs, other associated considerations and actions may also be included:

- Examine the distribution of benefits and costs to all stakeholders derived from the use of MBIs;
- Identify the scope of capacity building and the forms it may take in relation to MBIs practice (eg, help to develop markets for bundled environmental services<sup>1</sup>); and
- Capture social and cultural implications and impacts of MBIs practices on community.

### **6. Concluding remarks**

In this paper, we present key underpinning concepts, the template, template outputs, an example of community capacity profiles, and ideas for further development. This just provides a starting point to assist communities to profile their capacity with respect to the purpose of using MBIs. As issues related to the use of MBIs are interpreted differently by different actors and stakeholders depending on their interest and values, they need to be considered in the context in order to develop appropriate, case-specific responses that are tailored to account for numerous interacting

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<sup>1</sup> Refer to where more than one environmental service is provided simultaneously (eg, carbon sequestration, biodiversity conservation, watershed protection and landscape beauty).

factors that contribute to the community capacity of using MBIs. Also importantly, as no two communities are the same and each has its own characteristics in using MBIs, the auditing tool should not be used as a comparative or benchmarking process.

MBIs have now becoming part of the environmental and NRM policy portfolio, but there is an imperative to ensure the development of an effective policy mix to achieve a variety of goals and strengthen coherence between policies. Widespread use of MBIs needs to be based on comprehensive feasibility studies that consider the social, economic and ecological costs and benefits, assess the distribution of actual impacts, risks and the potential for political resistance. Although MBIs will not provide the complete solution, over time they have the potential to contribute to increased private inducement to environmental protection and NRM.

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