Indicator Name and Category

Community-Based Natural Resource Governance Indicators – B1 a,b,c (which could be used as R6, P7 and S6 – to be confirmed).

Indicator Definition: *Explanation of the indicator, technical definition of relevant terms.*

People are a key actor in the socio-ecological system of our planet. Given specific circumstances and conditions of deprivation or tenure insecurity, they can contribute to unsustainable use of natural resources. They can also be part of the solution to poor governance of natural resources that we hope to improve through our conservation actions.

To maximise the effectiveness of our conservation interventions at the same time as improving human wellbeing, it is important to monitor the 'human factor' in our programmes alongside indicators of biodiversity pressure, state and response. For this reason, it is proposed that WWF's common indicators of outcomes and impact include a set of three interlinked 'Community resource governance' indicators. By communities we refer to local, indigenous and tribal people whose livelihoods are directly affected by the governance of natural resources.

Keeping in line with the overall Pressure-State-Response framework employed by the common indicators, one community resource governance indicator will show the level of conflict and competition over the use of natural resources. This indicator will correspond to the human component of the direct threats (*P7*) in the conceptual model. A second indicator will reflect institutional capacity for community-based natural resource governance, which corresponds to the human component of many conservation interventions (*R6*). And the third indicator will reflect the physical access to natural resources, which will be required if improved biodiversity status and ecosystem services are to translate to improved human wellbeing (*S6*).

These three indicators would be measured at the office/programme level and rolled up to the level of the global portfolio for WWF internal use. It is also likely that some common indicator data will be of interest to external donors and stakeholders. As such, the indicators were formulated keeping in mind a balance between methodological rigour and ease of broad application. Table 1 summarises the three indicators for measuring community resource governance as a result of WWF interventions.

Table 1. Community resource governance indicators for user groups targeted by WWF programmes

Indicator	Definition	Source
1. Institutional capacity for resource governance	The extent to which community-based governance institutions for the management of common-pool resources (CPRs) empower resource-dependent people.	Programme staff desk assessment / focus group interviews
2. Conflict over natural resource use	The extent to which there is conflict around natural resource use that results in tensions between various actors.	Programme staff desk assessment / focus group interviews
3. Access to resources	The extent to which user groups have exercised rights to access natural resources. These rights are defined to include gender sensitive right to access, to harvest, to manage, to exclude, and to	Programme staff desk assessment / focus group interviews

	transfer.	

Within programmes, WWF usually intervenes at the level of groups of users organized in different manners, e.g. villages, groups of villages, communities, etc. These groups rely on different types of resources, each of which is likely to be characterised by different levels of institutional capacity, conflict, and access. Defining what constitutes a "user group" is important. For the purpose of these indicators, a user group is a group of individuals at the community level, in a specific geographic area, with shared social, economic or political characteristics who use/harvest a named resource in the same way. The members of this group have a common interest. See Annex A for further explanation of user groups.

Methodology: *How the indicator is measured, including units, timing and frequency, recommended scale and sampling density, and any associated calculations; and any necessary pre-requisites for feeding data into global databases. Be sure to acknowledge any individuals or organizations that have developed the indicator.*

B1a (R6). Institutional capacity for resource governance

> Definition -- The extent to which community-based governance institutions for the management of common-pool resources (CPRs) empower resource-dependent people.

The institutional capacity indicator looks at the status of a series of conditions that describe the existence of rules, processes, and capacity for the governance of common-pool resources by the communities themselves. These criteria are largely based on Elinor Ostrom's (1990) Principles for design of CPR governance systems.

The aim of this indicator is to score each user group against a list of criteria that will provide an overall picture of the status of the user group's institutional capacity for resource governance. Note that this indicator is looking at the *potential or capacity* for good resource governance, not the actual experiences of governance on the ground (which are covered by the conflict (P7) and access (S6) indicators).

The indicator consists of a simple questionnaire and works through the provision of a series of statements (expressed as the desired state) for each of the key conditions as identified below. The current status of each condition is scored in terms of the following levels of 'truth' or how the enumerators understand the current status of the governance and equity:

1	Strongly disagree with the statement
2	Disagree
3	Neither agree nor disagree
4	Agree
5	Strongly agree with the statement
N/A	Not Applicable

	Criteria	Score	Comment
1	Local people have secure (formal or informal) rights over their resources		
2	The CPRs have clear and recognized/formal boundaries		
3	There are use rules, reflective of local needs and conditions for both men and women, that restrict time, place, technology, and/or quantity of resource use		
4	Local people have clear mechanisms to enforce and modify operational rules and decisions are made in a transparent, gender sensitive, participatory, and democratic manner.		
5	Community resource guards/guides/scouts etc actively monitor CPR conditions and user behaviour and are accountable to the user group.		
6	Users who violate operational rules will sanctioned or required to make compensation by the management unit of the collective resource (depending on the seriousness and context of the offense)		
7	Users and their representatives /leaders have rapid access to low-cost, local arenas to resolve conflicts.		
8	The rights of users to devise their own rules are not challenged by external governmental authorities, and local and national legislation and policies are supportive.		
9	For more complex CPR systems, the governance provisions above (criteria 1-8) are organized in multiple nested layers (e.g. local, regional, and national).		
10	Women and minority groups are well-represented in community-based institutions and user groups, and their voices are heard.		
11	Community-based institutions are organised and have the capacity required to effectively lobby and influence government decisions in support of community/user groups rights and benefits.		

B1b (P7). Conflict over natural resource use

Definition – The extent to which there is conflict around natural resource use that results in tensions between various actors.

The aim of this indicator is to score each user group against a list of criteria that will provide an overall picture of the *actual frequency and intensity* of conflictual circumstances and episodes of conflict over a natural resource. The indicator consists of a simple questionnaire and works through the provision of a series of statements (expressed as the desired state) for each of the key conditions as identified below. The current status of each condition is scored in terms of the following levels of 'truth' or how the enumerators understand the current status of the natural resource conflict:

1   Strongly disagree – there is very high intensity/frequency of conflict

2   Disagree – there is high intensity/frequency of conflict
3   There is moderate intensity/frequency of conflict
4   Agree -- there is low intensity/frequency of conflict
5   Strongly agree with the statement – there are no conflicts
N/A   Not Applicable

Below are the six criteria to be used. Please remember to consider gender-specific issues within each, as the circumstances facing women are not always the same as those facing men.

	Criteria	Score	Comment
1	There are no conflicts over user group's tenure and/or the ownership of natural resources.		
2	There are no conflicts between user group and wildlife.		
3	There are no conflicts between private sector investments (plantations, extractives, etc) and user group.		
4	There are no conflicts between government officials in charge of natural resource management and user group's attempts to govern their common-pool resources.		
5	There are no conflicts (expropriation, closure, denied access) between large public sector works (dams, roads, energy infrastructure, etc) and user group.		
6	There are no conflicts within and/or between user groups over resources use/access, management and benefit sharing.		

B1c (S6). Access to resources[1]

> Definition -- The extent to which user groups have exercised rights to access natural resources. These rights are defined to include gender sensitive right to access, to harvest, to manage, to exclude, and to transfer.

The aim of this indicator is to score each user group against a list of criteria that will provide a picture of the *actual practice* of a series of progressively developed rights to access a natural resource. The tool consists of a set of five yes or no questions for each of the key conditions as identified below. For each user group, we document whether each of five resource rights has been exercised in the 12 months prior to survey.

Resource rights may be restricted or unrestricted. An unrestricted resource right gives the user complete control over all aspects of how they choose to access, harvest or manage a resource. For example, an unrestricted harvest right might give a user permission to harvest any species of tree in a forest, at any time,

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[1] The methods described in this guidance note are adapted from instruments developed to monitor the social impacts of marine protected areas in Indonesia (Glew et al, 2012)

by any method.   More commonly, individual resource rights will be restricted, meaning that an external authority controls the extent of a right. As an example, a restricted harvesting right may place one or more of the following conditions on how a resource is harvested:

· Gear/technique restriction: only specified gears or techniques are allowed; or some gear types or techniques are prohibited. E.g. *Blast fishing is prohibited.*
· Resource restriction: only specified resources may be harvested; or the harvest of particular species may be prohibited. E.g. *Resource users may not harvest mahogany, but all other trees may be harvested.*
· Seasonal restriction: resources may only be harvested at specified times of year, or there are particular 'closed' seasons. E.g. *Lobster fishing is not permitted between July and August each year.*
· Location restriction: resources may only be harvested in certain locations, or some locations represent 'no-take' or 'no-use' zones. E.g. *Tourism is not permitted in the no-take zone.*
· Identity restriction: resources may only be harvested by specified user groups, or harvest by certain groups is prohibited. E.g. *Only locals may harvest high value tree species.* Or, *women are permitted to harvest domestically-used forest resources only.*

Similarly, rights to manage, exclude or transfer resource rights to others may also be restricted.

It is important to note that this indicator is not measuring the restriction of access rights (which may in fact be beneficial), but whether or not user groups have *exercised* those rights at any time in the 12 months prior to survey. User groups should be scored 'YES' if they have exercised a right at any time, even if that right was restricted in some way.

	Question	Yes/No/Not applicable	Comment
1	In the past 12 months, has the user group entered the geographic area?		
2	In the past 12 months, has the user group harvested or extracted resources from the geographic area?		
3	In the past 12 months, has the user group made decisions about managing resources in the geographic area?		
4	In the past 12 months, has the user group made decisions about who can and cannot enter in the geographic area?		
5	In the past 12 months, has the group sold or leased the right to harvest resources in the geographic area?		

Resources required for data collection: *Provide some estimates or examples of what it costs to measure this indicator at specified scales.*

It is the intention that each of these indicators be assessed for an agreed set of approximately 20 user groups on an annual basis based on a desk exercise by WWF staff, and every 3 years based on a series of focus group discussions with representatives of user groups. Focus group discussions will use facilitated group processes to document community resource governance in WWF field sites. These discussions would follow the same criteria for the indicators outlined in the "Methodology" section above, but adapted for a field interview context. Programmes are encouraged to include these same indicators (among others) in their own M&E frameworks, and to the extent possible to use the assessment process as an opportunity to improve the implementation and effectiveness of their projects. Generally the work will involve staff time as well as organisational aspects of undertaking the focus group discussions every three years (meeting costs, transport, etc.).

It is estimated that for the annual assessments provided by project staff, the exercise will require about 15 minutes per user group assessed, or about 5 person-hours (divided across several staff) per year. It may however require more time if staff don't have the information immediately available and have to make additional inquiries.

Linked indicators or indicator descriptions: *Provide links to where the indicator or a similar indicator is used elsewhere, especially if it is used for Aichi Target or Sustainable Development Goal monitoring.*

Relevant Aichi Biodiversity Goals and Targets:

Goal D: Enhance the benefits to all from biodiversity and ecosystem services.

Target 14: By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.

Goal E: Enhance implementation through participatory planning, knowledge management and capacity building

Target 18: By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.

http://www.bipindicators.net/
https://www.cbd.int/

Suggested uses: *How the data might best be aggregated and presented within or across sites, landscapes, and programmes so as to be included in local or global programme portfolio dashboards.*

It is important to note a number of key points regarding the development and use of these indicators:

- We have chosen to focus our measurement on the management of natural resources at the community-level, and will largely exclude outcomes from the point of view of other stakeholders, e.g. companies, urban inhabitants, civil society organisations, etc.

- For methodological and attribution reasons, we are not directly measuring changes in human wellbeing, e.g. incomes, education, health status, etc. These indicators will also largely not capture macro-level changes in the socioeconomic and policy environment. It is hoped that over time and with improved integration of social considerations in WWF projects, more direct measures of human wellbeing may be possible.

- Following pilot testing of the proposed indicators in five sites (Namibia, Mozambique, Chile, Indonesia, and Canadian Arctic) it was decided that these indicators would focus only on those user groups that WWF is working with most closely, rather than on a representative sample of the population as a whole. This will allow us to make some conclusions about WWF's contribution to changes in the indicators for these groups, but not to generalise broadly to the larger scale.

These qualifications aside, these indicators will permit us to gain meaningful insight into the social factors related to the user groups we are working with most closely. *At the level of an individual user group*, they will reveal the status and challenges related to capacity/conflict/access for that specific user group at a point in time, and trends in these factors from year to year. This will enable the WWF programme to adaptively manage how it engages and empowers this group and to address its specific needs.

At the level of the office/programme, they will allow WWF to look for common strengths and challenges facing a set of user groups located in a common geography, or relying on a similar resource, or representing a common type of user, or for the office/programme as a whole. This information can inform higher-level policy and sectorial interventions in that programme.

And at the global level, these indicators can be used to identify relatively strong offices/programmes that can provide lessons and best practices, and weaker ones that may require additional network focus. And looking across criteria it will serve to highlight emerging global issues of resource governance, partnerships, and drivers that are key to WWF's effectiveness as an organisation.

References: *Any key scientific papers or tools that provide more relevant information on methods or data (with URLs wherever possible).*

Glew, L., M.B. Mascia and F. Pakiding (2012). Solving the Mystery of MPA Performance: monitoring social impacts. Field Manual (version 1.0). World Wildlife Fund and Universitas Negeri Papua, Washington D.C. and Manokwari, Indonesia.

Ostrom, E. 1990. *Governing the commons: the evolution of institutions for collective action.* Cambridge University Press, Cambridge, UK.

Contacts: *Who to go to for further information and advice.*

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Annex A: Identification of user groups

For the purpose of the three community resource governance indicators, a user group is:

> A group of individuals at the community level, targeted by WWF programmes in a specific geographic area, with shared social, economic or political characteristics who use/harvest a named resource in the same way.

This definition translates to a group of people at the community level targeting and using the same natural resource – group of fishermen targeting the same fishing areas, group of forest dwellers targeting the same forest area and resources, group of people benefiting from the same river basin of watershed, group of people using the same pasture area or agricultural region.
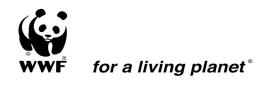
The project team may wish to be more specific in terms of how the resource is used – for example, dividing the group of fishermen into fishing gear types (beach seining, line fishing, traps, trawling). Conversely, it could subdivide a particular resource type into categories, for example local producers of charcoal, bee collectors, and game hunters could all be users of non-timber forest resources. Furthermore, we may wish to define user groups so as to capture specific economic, demographic or marginal groups, as well as to identify gender inequalities.

Although a large-scale programme like an ecoregion can have literally hundreds of user groups, for the community resource governance indicators we will focus our measurement on the user groups with which we are the most familiar. In addition to being methodologically simple, this will allow us to see the impact on the groups who are most directly affected by our work. The disadvantage of this 'subjective' selection of user groups is that we will not be able to confidently generalise the results from the user groups identified to the entire programme or WWF's overall portfolio.

It is also important to make special effort to ensure the representation of women in user groups, as they are not consistently accounted for in conservation, although they are disproportionately dependent on natural resources and affected by our work. Donors to WWF's work are increasingly interested in data related to gender, and the selection of user groups can be tailored to ensure that women-specific user groups are included.

Below are simple steps for identifying user groups for the three community resource governance indicators.

Step 1. Review your programme's conceptual model, results chains, logical framework, etc, and list the key natural resource types (e.g., forests, grasslands, whitefish) targeted by the WWF programme.

Step 2. Make a list of the priority geographies targeted by the WWF programme in which these resources occur.

Step 3. Make a list of key user types that are important for your work. These may be geopolitical (from a specific village or district), social (from a particular social group or class, including indigenous

peoples), technical (net fishers, line fishers), or economic (high income, low income). A gender perspective should be mainstreamed here.

Step 4. With the above lists of key resource types, geographies, and user types in mind, <u>identify a set of user groups for which you will apply the three indicators</u>. To the extent possible, try to ensure a good representation of each of these lists. You should aim to have approximately 20 distinct user groups. Please note that to optimise the future analysis of trends you should aim to follow the same user groups over time.

Once the user groups are identified, assess the criteria for each of the three indicators for each user group, being sure to identify each user group by the resource type, geography, and user type for use in analysis.