

**Analytical framework and full list of incentives (36) for protected areas developed through the MPAG project – Adapted from Jones PJS (2014) *Governing Marine Protected Areas: resilience through diversity* – [www.mpag.info](http://www.mpag.info)**

You can refer to [Jones \(2014\)](#) for a full description of the analytical framework employed in the MPA Governance (MPAG) project, including examples of its application to 20 case studies around the world and related discussions, but the framework broadly consists of the following headings, each of which should be populated for a given protected area (PA). These headings have been adapted for application to protected areas in general (marine, coastal, wetland and terrestrial)

Context, including metrics:

- Name of PA
- Area of PA
- Per capita Gross Domestic Product (GDP)
- GDP Growth rate
- Main economic sectors (relative employment and GDP contributions)
- Unemployment rate
- State Capacity – average of 6 indicators for PA country: [www.govindicators.org](http://www.govindicators.org)
- Human Development Index (HDI)
- Population below poverty line

Objectives of the PA – legally or otherwise formally and widely recognized.

Drivers and conflicts – what factors are driving incompatible uses and how do the impacts related to these uses undermine the fulfilment of the PA's objectives?

Governance framework/approach – outline the legal, policy and participative governance structure.

Effectiveness (0-5) – assessment of the degree to which the impacts of different uses, related to conflicts that can undermine the fulfilment of objectives, have been effectively addressed:

- 0 No use impacts addressed; PA designation may even have increased impacts by undermining previous governance institutions;
- 1 Some impacts beginning to be slightly addressed;
- 2 Some impacts partly addressed but some impacts not yet addressed;
- 3 Some impacts completely addressed, some are partly addressed;
- 4 Most impacts addressed but some not completely
- 5 All impacts from local activities completely addressed.

How the incentives detailed below have been employed and which need to be strengthened or introduced:

- Economic
- Interpretative
- Knowledge
- Legal
- Participative

How do the incentives interact to support each other?

Cross cutting themes, *e.g.*

- Role of leadership
- Role of non-governmental organizations, including local groups
- Equity issues

Against this background, a given PA can be assigned to one of five governance approach categories, based on the way in which the PA was initiated and the key ways in which it is governed:-

<i>PA governance approach</i>	<i>Characteristics</i>
Governed primarily by the <b>state</b> under a clear legal framework	Decisions are taken by the state with some deconcentration or delegation of power to lower level government and quasi-independent government organizations, which generally only consult local users and other stakeholders on decisions taken at a higher state level
Governed by the state with significant <b>decentralization</b> and/or influences from private organizations	Implementation is deconcentrated to lower level government, quasi-independent government and private organizations along with the delegation of some decision-making powers, with central governments maintaining some degree and form of control over implementation and decision-making
Governed primarily by <b>local communities</b> under collective management arrangements	PAs instigated on a bottom-up basis by local users, often through local organizations, with most implementation and decision-making remaining delegated to local users/organizations, but often requiring some degree of state support for enforcement and therefore also involving some influence by central governments
Governed primarily by the <b>private</b> sector and/or NGOs who are granted with property rights and associated management rights	PAs instigated by organisations who may, or may not, represent local users and who are granted with the majority of decision-making powers and implementation responsibilities, but often still requiring some degree of state support for enforcement, though central government influence is generally limited to conditions attached to property and associated management rights, coupled with recourse to withdraw such rights if conditions are not fulfilled
No clearly recognizable effective governance framework in place, i.e. 'paper park'	Paper PAs with no effective incentives to promote the achievement of PA objectives or fulfilment of related obligations, the central state or lower government levels often lacking the political will for effective PAs and sometimes being involved, in partnership with the private sector, in development proposals that significantly undermine such fulfilment

The PAG framework includes assessments of the following questions in relation to your PA case study:-

*Which of these incentives are currently applied and how are they applied?*

*Are improvements in the way any of these applied incentives are implemented considered a priority in order to improve the effectiveness of the PA in achieving its conservation objectives?*

*Which incentives could be a priority to be introduced and could realistically be introduced in order to improve the effectiveness of your PA?*

These questions can be considered in relation to the following five categories of incentives:-

Incentive category	Definition
Economic ('market')	Using economic and property rights approaches to promote the fulfilment of PA objectives (10)
Interpretative ('education and awareness raising')	Promoting awareness of the conservation features of the PA, the related objectives for conserving them and the policies for achieving these objectives, and promoting support for related measures (3)
Knowledge ('combining expert & traditional knowledge')	Respecting and promoting the use of different sources of knowledge (local-traditional and expert-scientific) to better inform PA decisions (3)
Legal ('top-down')	Establishment and enforcement of relevant laws, regulations etc. as a source of 'state steer' to promote compliance with decisions and thereby the achievement of PA obligations (10)
Participative ('bottom-up')	Providing for users, communities & other interest groups to participate in & influence PA decision-making that may potentially affect them in order to promote their 'ownership' of the PA & thereby their potential to cooperate in the implementation of decisions (10)

These 36 incentives can be listed as follows:-

Incentive category	Incentives (total 36)
Economic (10)	<ul style="list-style-type: none"> <li>Assigning property rights</li> <li>Reducing the leakage of benefits</li> <li>Promoting profitable and sustainable fisheries</li> <li>Promoting green marketing</li> <li>Promoting alternative livelihoods</li> <li>Providing compensation</li> <li>Reinvesting PA income in local communities</li> <li>Ensuring sufficient state funding</li> <li>Provision of NGO and private sector funding</li> <li>Payments for ecosystem services (PES), e.g. REDD and Blue Carbon schemes</li> </ul>
Interpretative (3)	<ul style="list-style-type: none"> <li>Raising awareness</li> <li>Promoting recognition of benefits</li> <li>Promoting recognition of regulations and restrictions</li> </ul>
Knowledge (3)	<ul style="list-style-type: none"> <li>Promoting collective learning</li> <li>Agreeing approaches for addressing uncertainty</li> <li>Independent advice and arbitration</li> </ul>
Legal (10)	<ul style="list-style-type: none"> <li>Hierarchical obligations</li> <li>Capacity for enforcement</li> <li>Penalties for deterrence</li> <li>Protection from incoming users</li> <li>Attaching conditions to property rights</li> <li>Cross-jurisdictional coordination</li> <li>Clear and consistent legal definitions</li> <li>Clarity concerning jurisdictional limitations</li> <li>Legal adjudication platforms</li> <li>Transparency and fairness</li> </ul>
Participative (10)	<ul style="list-style-type: none"> <li>Rules for participation</li> <li>Establishing collaborative platforms</li> <li>Neutral facilitation</li> <li>Independent arbitration panels</li> <li>Decentralising responsibilities</li> <li>Peer enforcement</li> <li>Building social capital</li> <li>Bracing linkages</li> <li>Building on local customs</li> <li>Potential to influence higher institutional levels</li> </ul>

Here is a description of each of the 36 incentives to be employed in the PAG framework:-

#### Economic incentives (10)

##### **Assigning property rights**

Assigning property rights for certain areas and resources to appropriate groups of people to promote ownership, stewardship, rational self-interest in sustainable exploitation, *etc.*

##### **Reducing the leakage of benefits**

Measures to reduce the 'leakage' of the economic benefits of the PA away from local people, including measures to promote the fair distribution of such benefits amongst local people, e.g. ecotourism that maximises the income received by local people through locally operated businesses, home-stay accommodation, employing locals in tourist facilities, commercial operations run by the protected area authority itself, *etc.*

##### **Promoting profitable and sustainable hunting, fishing, etc**

Promoting sustainable exploitation by providing a refuge for exploited populations in no-fishing/no-hunting zones in order to safeguard and enhance harvests in adjacent fishing grounds through spill-over/export, insurance against uncertainty, *etc.*

##### **Promoting green marketing**

Promoting the 'green marketing' of appropriate tourism, fisheries, *etc.* within the PA to increase profits and income, including market premiums for well conserved natural resources and tourist/diver user fees to enter the PA or particular zones.

##### **Promoting alternative livelihoods**

Seeking and promoting alternative livelihood and economic development opportunities that are compatible with the achievement of the biodiversity conservation objectives and can generate sustainable income for local people.

##### **Providing compensation**

Providing fair economic compensation for those users who carry costs as a result of restrictions on their activities that cannot reasonably be offset through alternative compatible opportunities, *e.g.* fisheries and forestry buy-outs.

##### **Investing PA income/funding in facilities for local communities**

Investing some of the income from or funding for the PA to develop local facilities (schools, medical care, family planning, *etc.*) and infrastructure (roads and other transport links, electricity, water, *etc.*).

##### **Ensuring sufficient state funding**

Ensuring that a sufficient degree of state funding is available to support the governance of the PA, particularly in relation to enforcement and the economic incentives listed above, whilst ensuring that such funding does not allow the state to 'capture' PA governance by undermining the balance of power discussed below in relation to participation incentives.

### **Provision of NGO, private sector and user fee funding**

Seeking corporate, NGO and private funding through endowments, donations, *etc.* to support the governance of the PA, particularly in relation to enforcement and the economic incentives listed above, whilst ensuring that such funders cannot 'capture' PA governance through an inappropriate degree and type of influence. Such funding can also be raised through 'user fees' on individual people or businesses using the protected area for hiking, diving, recreational fishing, *etc.*, potentially also serving to manage user numbers.

### **Payments for marine ecosystem services (PES)**

Direct payments for the flow of ecosystems services provided by the PA through formal markets with open trading between buyers and sells, e.g. REDD+ payments and their marine equivalent, Blue Carbon payments.

## Interpretative incentives (3)

### **Raising awareness**

Using the social and local media, TV & radio and other approaches to overcome 'out of sight, out of mind' barriers by raising the awareness of users, local people, relevant authority officers, politicians, *etc.* about the aesthetic values, ecological importance and vulnerability of the protected area's biodiversity.

### **Promoting recognition of benefits**

Promoting recognition of the potential resource benefits of the conserved areas in terms of profitable and sustainable hunting, fishing, insurance/resilience, *etc.*, whilst being realistic about such potential benefits and not 'over-selling' them.

### **Promoting recognition of regulations and restrictions**

Promoting recognition of and respect for the PA's regulations and restrictions, including the boundaries

## Knowledge incentives (3)

### **Promoting collective learning**

Promoting mutual respect amongst local people and scientists for the validity of each other's knowledge and promoting collective learning and the integration of different knowledges through partnership research, research/advisory groups, participative GIS, participative workshops, *etc*

### **Agreeing approaches for addressing uncertainty**

Explicitly recognising the challenges raised by scientific uncertainty and agreeing approaches to address such challenges, *e.g.* ground rules for the interpretation and application of the precautionary principle, decision-making under uncertainty, and adaptation in the light of emerging knowledge.

### **Independent advice and arbitration**

Seeking independent advice and/or arbitration in the face of conflicting information and/or uncertainty.

### **Hierarchical obligations**

International-regional-national-local legal obligations that require effective PA conservation, including the potential for top-down interventions.

### **Capacity for enforcement**

Following the principles of decentralisation, ensure that sufficient government capacity, political will, surveillance technologies and financial resources are available to ensure the equitable and effective enforcement of all restrictions on all local and incoming users, including related pressures from forestry, hunting, fisheries and tourism market forces.

### **Penalties for deterrence**

Effective judicial system for proportionately penalising illegal resource users in a way that provides an appropriate level of deterrence and helps address conflicts that would otherwise undermine marine conservation objectives.

### **Protection from incoming users**

Providing for a degree of legal protection from incoming users, particularly non-local fishermen, poachers, etc., recognising that exploitation by incoming users often poses a major threat to local biodiversity and resources.

### **Attaching conditions to use and property rights**

Agreeing performance standards, conditions, criteria and requirements related to the PA's conservation objectives and attaching them to user & property rights, participatory governance structures, etc.

### **Cross-jurisdictional coordination**

Legal or other official basis for coordination between different authorities, and between conservation and other government agencies/law enforcement units, to address cross-jurisdictional and cross-sectoral conflicts in order to support the achievement of PA objectives, e.g. watershed management by pollution authority, fish stock management by the fisheries authority, forestry management by the forestry authority, recognising that the environment authority with responsibility for PAs often does not have direct jurisdiction over other sectoral activities that can impact the PA's conservation features.

### **Clear and consistent legal definitions**

Clarity and consistency in legally defining the objectives of PAs, general and zonal use restrictions, jurisdictional boundaries, roles and responsibilities of different authorities, etc.

### **Clarity concerning jurisdictional limitations**

Promoting clarity and openness concerning the jurisdictional limitations of the PA legislation, *i.e.* recognising what driving forces, activities and impacts cannot be directly addressed by the PA legislative framework and exploring means of addressing such factors.

### **Legal adjudication platforms**

Employing legal, customary law and other formal and widely respected decision-making platforms to address and regulate conflicts, when required.

### **Transparency and fairness**

Establishing legal provisions to ensure transparency and fairness in PA management processes, *e.g.* statutory requirements for public access to information, appeals, public hearings, *etc.*

Participative incentives (10)
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### **Rules for participation**

Clear rules on participation from different groups and the representation of all user groups in participation processes in a manner that minimises the undue influence of particular vested interests.

### **Establishing collaborative platforms**

Developing participative governance structures and processes that support collaborative planning and decision-making, *e.g.* cooperatives and user committees, participative planning workshops, postal consultations on proposals that provide for detailed feedback, *etc.*, including training to support such approaches

### **Neutral facilitation**

Bringing in neutral facilitators to support governance processes and negotiations.

### **Independent arbitration panels**

Employing neutral and locally respected panels to arbitrate on issues and recommend decisions.

### **Decentralising responsibilities**

Decentralising some roles, responsibilities and decision-making authority to people through a clear management structure, whilst maintaining an appropriate degree of authority by higher level state organisations in order to ensure that strategic conservation objectives are effectively met, being open and realistic about the degree of autonomy and influence that local people can expect

### **Peer enforcement**

Providing for participative enforcement, *e.g.* peer enforcement, community rangers/wardens, and promoting the potential for cooperation and peer enforcement through the development of a sense of ownership of the PA and respect for related decisions.

### **Building trust and the capacity for cooperation**

Building trust amongst individuals through transparency, face-to-face discussions, equity promotion, *etc.*, promoting cooperation and confidence that this will be reciprocated amongst PA users.

**Building linkages between relevant authorities and user representatives**

Developing and strengthening linkages amongst relevant government authorities and key user representatives, including mutual trust, in order to promote the fulfilment of legal conservation objectives and build resilience governance structures.

**Building on local customs**

Promoting consistency with and respect for local traditions, customs, norms and practices, in so far as they are compatible with and contribute towards the fulfilment of legal conservation objectives, including scope for flexibility, negotiations and compromises.

**Potential to influence higher institutional levels**

Promoting recognition & realisation of the potential for the participative governance of a given PA to influence the higher-wider statutory framework, processes and obligations, *i.e.* that local people can have an influence on higher level institutions as well as being influenced by them in a co-evolutionary manner.