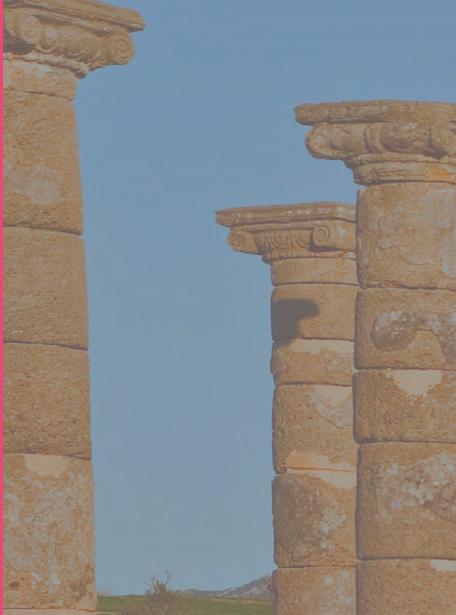


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## How to Create a Cultural Landscape Guide



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# How To Create a Cultural Landscape Guide

Scientific coordination:  
Silvia Fernández Cacho

# Introduction

From the very beginning, the Andalusian Institute of Historical Heritage (IAPH) has promoted cultural heritage as an integral and extremely important part of places and, as such, as something that has been shaped by both the past and present. Instead of being considered as a collection of isolated objects, cultural heritage is now seen within the context of its physical and social environment.

These principles, which are at the heart of its work, explain why since 2000, the year in which the European Landscape Convention was signed in Florence, the institute has organised a series of cultural landscape projects and initiatives of great methodological and technical importance, undertaken by the Cultural Landscape Laboratory, a permanent part of the IAPH.

Through the laboratory, the institute has sat on monitoring and technical committees as part of the Andalusian Landscape Strategy and the National Plan for Cultural Landscape; has been invited to various scientific and technical events by national and international organisations; has organised numerous training initiatives in the form of courses and individual mentoring schemes in Spain and abroad; and is responsible for multiple research and outreach publications.

It is as part of our efforts to further the transfer of knowledge, one of the cornerstones of our work at the IAPH, that we publish this guide, the purpose of which is to bring together in one place much of the expertise and experience in the field of cultural landscapes that we have accumulated over the past 20 years. We hope it comes in useful for those interested in and responsible for preserving the cultural and natural values of landscapes, as well as helps them ensure that changes affecting them are managed following an approach based on sustainability and participatory governance.

Juan José Primo Jurado  
Director of the IAPH

# Prologues

How to Create a Cultural Landscape Guide, published by the Regional Department for Culture and Historical Heritage in Andalusia and created by the Andalusian Institute of Historical Heritage, represents a major step forward in terms of developing an effective approach to cultural landscapes.

We would like to congratulate the Director of the institute, Juan José Primo Jurado, the technical coordinator of the publication, Silvia Fernández Cacho, and the authors: José María Rodrigo Cámara, Víctor Fernández Salinas, Isabel Durán Salado, José Manuel Díaz Iglesias, Jesús Cuevas García, Pedro Salmerón Escobar and Isabel Santana Falcón.

The exceptional experience of the institute acquired over the years across a territory of great beauty and incomparable richness has led it to undertake in-depth work as well as develop tools in the area of cultural landscape management.

The geographical and temporal scope involved as well as the range of themes covered in How to Create a Cultural Landscape Guide are thus of great use to public authorities and other actors looking to protect, manage and enhance their landscape.

More than a source of inspiration, they are an invitation to action.

Maguelonne Déjeant-Pons  
Executive Secretary of the Council of Europe Landscape Convention

Upon ratifying the Council of Europe Landscape Convention at the dawn of the new millennium, Spain undertook to establish a series of strategies that would link public authorities, institutions and civil society, in other words the entire country, to landscape in the broadest sense of the word.

In order to implement the Convention, a number of lines of work were laid out, including the creation of the National Cultural Landscape Plan. This instrument was drafted by the most distinguished experts in landscape from all over Spain, and Andalusia played a key role in the process.

According to the National Cultural Landscape Plan, the study of landscape 'may be an end in itself, as a source of knowledge in addition to a valuable tool for public authorities and bodies responsible for a territory, as it provides the knowledge that needs to be taken into account when planning any action that affects the territory, be it related to the environment, town planning, public works, etc.'

This publication brings together the knowledge and experience of experts who have worked tirelessly since the signature of the European Landscape Convention, drawing on their extensive and very innovative research into Spain's complex and extremely varied landscapes. As such, it is undoubtedly a useful tool for professionals and anyone else involved in creating a landscape guide.

Carmen Caro  
Coordinator, National Cultural Heritage Plans,  
Spanish Cultural Heritage Institute

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09



Managing a  
landscape guide  
over its lifespan

## Monitoring: concept and tasks

### Changing landscapes and the life cycle of a landscape guide

Due to their very nature, landscapes represent a dynamic system. As is outlined in the European Landscape Convention, each society in time interacts with their landscape and accompanies it on a constant journey of change. As such, each landscape guide provides a snapshot of a particular cultural landscape at a given moment in time. As part of this, an assessment is carried out of the landscape, which looks at both its actual and potential values as well as the threats and imbalances identified.

From a planning perspective, monitoring should be regarded as an ongoing process present throughout the lifespan of a landscape guide, from its design and creation through to the implementation and evaluation of its measures. As such, monitoring involves overseeing the creation of the guide and subsequently establishing to what extent the heritage values of the landscape in question are being preserved, what results have been achieved based on the objectives established, how successful the management strategies employed have been, and how the processes implemented may be improved.

Measuring the adequacy of the processes and procedures implemented as well as progress made in terms of results as part of the monitoring of the landscape guide lays the foundations for evaluation. This should be seen as part of the management process and a task that can be undertaken at various points or milestones over the life cycle of a landscape guide. Further on in this chapter, we will look at the need to design a system of indicators in

order to ensure ongoing, objective and methodical data collection throughout, going into this topic in some depth.

So, to sum up, the following should be taken into account when discussing monitoring within the context of a landscape guide:

- It should aim to identify the progress made and results achieved by the landscape guide, thereby providing us with information on how successful it is proving.
- It should be ongoing and not a one-off task, as is the case with evaluation.
- Generally speaking, it should be something that is carried out internally by those responsible for managing the project.
- It is informative in nature and less holistic than evaluation.
- It provides insights of a descriptive nature, but does not involve value judgements necessary for evaluation.

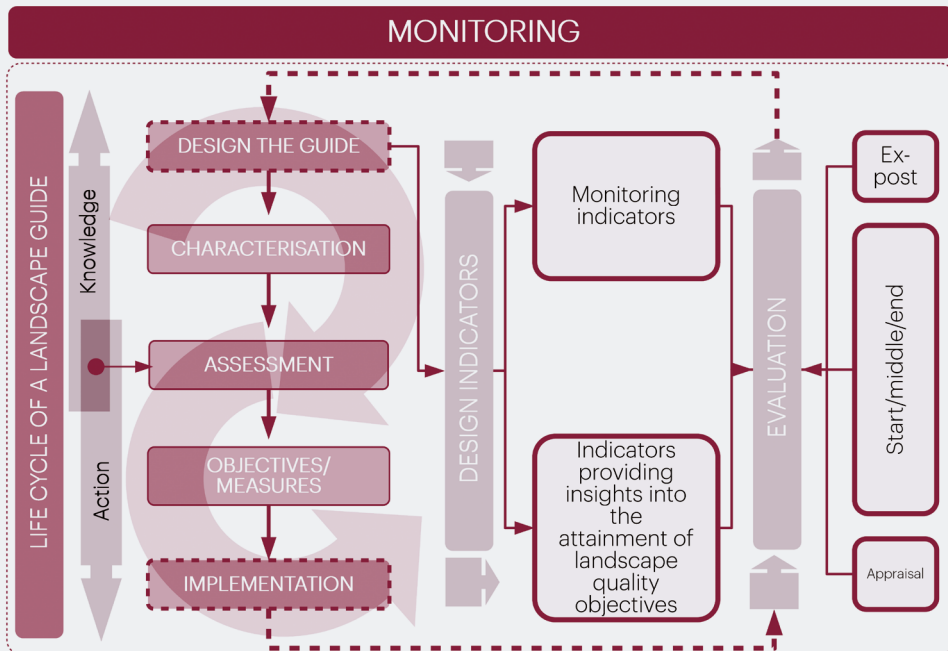
### Organising tasks

Based on the above, monitoring represents a sub-system within the management framework of a landscape guide. Bearing in mind that it is something that takes place alongside the other processes involved in a landscape guide, below is a list of tasks which should be carried out, one after the other, over its life cycle.

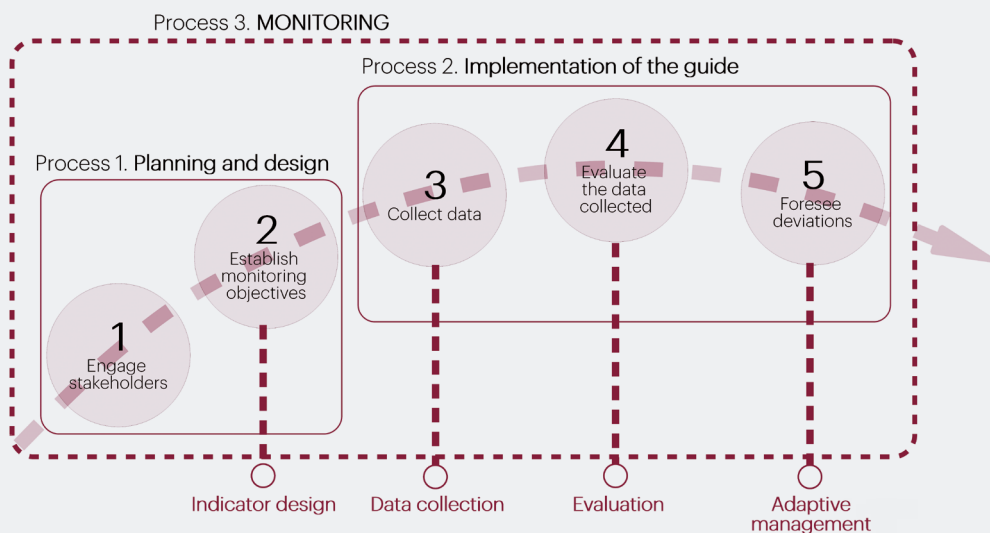
a) Task 1: generating commitment and organising stakeholders

Within the context of a landscape guide, two groups of stakeholders are involved in monitoring, namely:

## The monitoring process over the standard life cycle of a landscape guide



## Basic monitoring tasks for the main processes involved in heritage management



Within the context of a landscape guide, monitoring should be seen as an ongoing process throughout its life cycle, the purpose of which is to establish how successfully landscape values are being preserved and how effective its management strategies are proving.

- The monitoring commission: this body typically undertakes the necessary monitoring tasks over the entire life cycle of a landscape guide. It is responsible for designing data collection objectives, creating indicators and ensuring data collection tasks are regularly undertaken as planned. The commission may include members of the production team, individuals and institutions involved in the landscape guide and/or external and independent entities, professionals and companies. It may be divided into as many working groups as necessary.
- Stakeholders that provide monitoring data: all the stakeholders identified as part of the landscape guide should be taken into consideration when selecting the members of this group. They should include primary stakeholders and be selected (in terms of number and nature) based on the data required as well as their contribution to enabling the success of the landscape guide. As such, they may include public authorities, associations of various kinds, service users and inhabitants (as participants in surveys or any other initiatives designed to collect data), to name just a few examples. These stakeholders play an extremely important role in terms of providing the input required for each indicator, in line with the nature of each objective established.

#### b) Task 2: establishing monitoring objectives

Although each landscape guide is different, its landscape quality objectives must be perfectly aligned with its monitoring objectives. In terms of the latter, it may be useful to create groups of objectives, bearing in mind that they should be measured using a set of quantitative and qualitative indicators, these providing the basis for the value judgments formulated as part of the various evaluations planned. These groups of objectives may be:

- related to the internal workings of the landscape guide's management model, which should be monitored. This includes aspects such as how solid it is in terms of commitments to monitoring and updating. This group of monitoring objectives provides insights into intensity, strength, awareness, involvement, etc.;
- related to the level of commitment amongst those who have been identified as key stakeholders with

## Possible groups of monitoring objectives

### Internal workings

- Organise a quarterly monitoring meeting with the working teams.
- Adhere to the delivery schedule for documents, limiting delays to a maximum of one month.
- Create a channel to allow issues with the guide to be flagged and areas for improvement identified.

### External engagement

- Involve primary stakeholders identified on the stakeholder map (data collection for indicators and evaluation).
- Organise annual workshops for stakeholders involved in monitoring in order to assess their engagement.

### Attainment of landscape quality objectives (monitoring of the guide)

- Agree upon a schedule for implementing measures.
- Organise at least two annual meetings with stakeholders involved in implementation in order to assess progress made in terms of the implementation schedule.

### Social perception of the guide (from the formulation through to the impact assessment of measures)

- Organise public events before, during and after each phase of the guide.
- Gain insights into the level of support for actions and measures implemented during the production and implementation phases.
- Identify areas of conflict in terms of the implementation of measures and collect proposals for improvement.

Effective monitoring involves clearly establishing what will be measured and who will be doing the measuring. As shown by numerous reports by international heritage organisations, the absence of this groundwork tends to lead to management initiatives failing or being poorly managed.

interests in aspects such as continuity, level of involvement and awareness, which must be looked at in relation to their level of power, influence and interest;

- related to the level of attainment or implementation of the landscape quality objects, allowing the effectiveness and efficiency of the work to be established; and
- related to the many ways the public may perceive the measures or actions proposed in the landscape guide for the landscape in question. This is particularly useful for analysing their social impact.

Based on the groups of monitoring objectives created for the landscape guide, a series of indicators should be designed, a topic that will be discussed in more detail later on in this chapter.

### c) Task 3: data collection (measuring)

Provided the two previous tasks have gone well, in terms of the level of commitment achieved amongst the various stakeholders and the agreement reached in terms of the monitoring objec-



tives, this task should be straightforward. Once the above has been clearly established, i.e. what will be measured and who will be doing the measuring, the bulk of the work has already been done. Indeed, numerous monitoring reports published by international heritage organisations show that the absence of this groundwork tends to lead to management initiatives failing or being poorly managed.

This task takes place during the implementation phase of a landscape guide. The monitoring commission is responsible for receiving and correctly recording the quantitative and qualitative information provided by the various stakeholders involved in data collection.

d) Task 4: providing the monitoring commission with data or measurements

Data (measurements) must be submitted to the monitoring commission in line with the milestones established for the evaluation process of the landscape guide. This information should be up to date and follow (amongst other things) a clear schedule for data collection so that the evolution of the indicator can be seen. In section 9.2 of this chapter, we discuss what evaluation involves, how often it should be carried out, its purpose and its benefits in more detail.

In order to ensure data is correctly submitted to the commission, in addition to guaranteeing its reliability and structure, commonly used database systems may be used.

e) Task 5: foreseeing deviations



In addition to the progressive incorporation of the results of evaluations into ongoing monitoring pro-

cesses, the concept of adaptive management is seen in heritage management. This refers to the capacity of a management system to be able to quickly incorporate data (almost in real time), so that we are able to see how far we are from attaining our initial objectives at any given moment.

Broadly speaking, any deviations from the process laid out in the landscape guide should be taken into account so that the appropriate decisions can be made, which may include discontinuing certain actions or measures or keeping them in place, based on thresholds previously agreed upon. These decisions may be based on issues relating to its internal workings, such as the collaboration of stakeholders or the availability of sufficient economic resources, or the likelihood of certain landscape quality objectives being attained. Foreseeing deviations in order to allow for reactive decision-making means taking a highly critical stance when it comes to the evolution and functioning of the landscape guide as a project. Ultimately, this approach enables us to recognise shortcomings in order to keep the guide on track.

## Evaluation framework

### Preliminary considerations

Since the 1970s, evaluation methodologies have been developed and used to evaluate public policy, particularly development aid and cooperation projects, where effectiveness, financial monitoring and the participation of numerous stakeholders are particularly important. During this period, methodologies and techniques such as the Delphi Method  and the Logical Framework Approach  began to be employed, and proved so successful that they continue to be used (with certain variations) to plan and evaluate all kinds of projects, programmes

and strategies in the public and private spheres, including at companies and NGOs. Within the context of cultural heritage, they are also used at all levels, from work undertaken by UNESCO through to local initiatives designed to develop and promote cultural heritage.

Evaluation is a part of the management and therefore monitoring process. Its purpose is to analyse, through a series of indicators, the method and results of a programme or policy based on a set of parameters for the purpose of improving it. This concept is applicable to a landscape guide, from its creation through to its implementation.

When approaching the issue of evaluation within the context of a landscape guide, the first thing to consider is the alignment of the landscape quality objectives with a series of monitoring objectives. Certain techniques designed to evaluate plans are based on the use of evaluation questions, which tend to focus on how things have been done and what difference has been made.

When deciding what to evaluate in our work, the following criteria or performance areas may guide our choices (these forming the basis of evaluation questions):

- The landscape guide's overreaching framework (legal, strategic, etc.): the extent to which the guide upholds this framework.
- Relevance and appropriateness: the extent to which the landscape quality objectives are suited to the needs and priorities of the population, and the cultural landscape itself.
- Efficiency: the relationship between the landscape quality objectives and the effort they require in

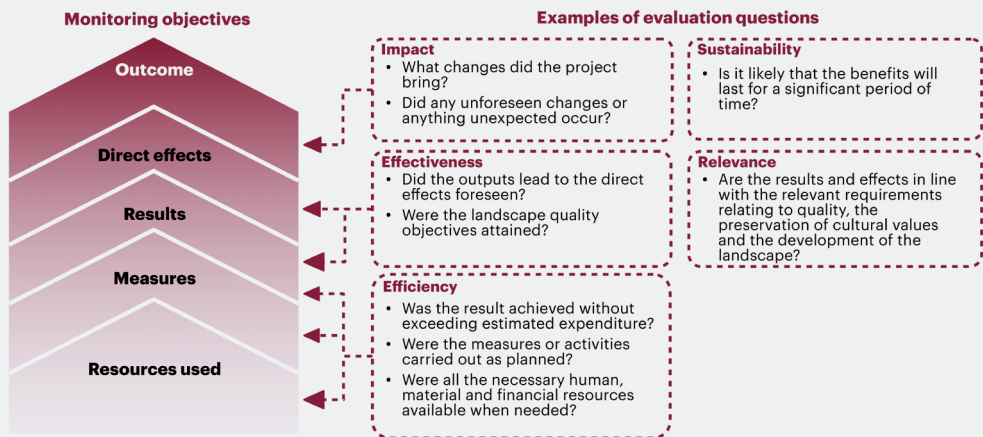
terms of time, human and economic resources, etc. This is about cost-effectiveness and timeliness.

- Effectiveness: the extent to which the landscape quality objectives have achieved or are likely to achieve their results.
- Coverage: the extent to which the landscape quality objectives include (or exclude) the population and landscape.
- Effects and impacts: the extent of positive and negative changes on stakeholders and the territory of the cultural landscape in question.
- Coherence: the extent to which the landscape guide is consistent with relevant policies, including those covering regional/spatial planning, the environment, agriculture, town planning, etc.
- Sustainability: how long the achievements brought about the landscape guide are likely to last and their cost in the long term.

This initial list of criteria should guide the monitoring commission in terms of designing and establishing measurement indicators. Furthermore, how we evaluate our work should be guided by a series of standards, namely:

- Utility: evaluations must serve a purpose (such as improving the landscape and gaining insights into successes and failures).
- Feasibility: evaluations must be realistic and possible to carry out.
- Ethics and legality: evaluations must be conducted in an ethical and legal manner, meaning they must respect all applicable rights and obligations (such as those relating to image, privacy, intellectual property and all other relevant legal requirements).
- Transparency: evaluation activities should be underpinned by an attitude of transparency and openness.

## Formulating evaluation questions



- **Accuracy:** evaluations should be technically accurate, providing sufficient information about the data collection, analysis and interpretation methods so that their worth or merit can be determined.
- **Participation:** evaluations should be open to and include all relevant stakeholders.
- **Collaboration:** evaluations should involve constructive and creative collaboration with as many stakeholders as possible, either directly or indirectly.

One of the organisations that best uses and explains this monitoring methodology is the Interna-

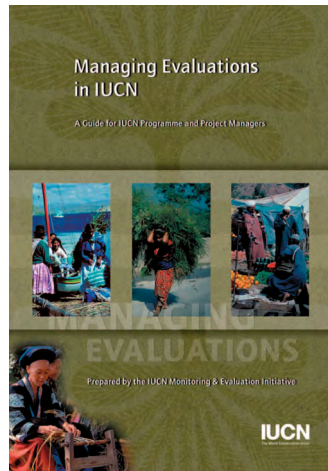
tional Federation of Red Cross and Red Crescent Societies (IFRC), doing so in its Project/Programme Monitoring and Evaluation (M&E) Guide [↗](#). This methodology has been widely drawn upon in this chapter and is also used by organisations involved in heritage conservation, such as the IUCN. A particularly relevant publication by the latter in this area is *Managing Evaluations: A Guide for IUCN Programme and Project Managers* [↗](#).

### **Towards an evaluation plan**

Based on the above, we will now be in a position to plan our evaluations, something which involves three main groups of tasks: data, sampling and management.

a) The first group involves creating a framework for the data to be used for evaluation. Here, the aim is to establish what data will be used to measure each monitoring objective, although this procedure can be extended to encompass each landscape quality objective. This may be done in the following manner:

- Creating an evaluation plan table: this provides information on where we are up to with each task. It summarises key indicator (measurement) information in a single table, including a definition of the data, its sources, the methods and timing of its collection, the people responsible, and the intended audience and use of the data. The main benefits of this exercise include ensuring maximum efficiency in terms of data collection and reporting; making the planning and implementation of projects as effective and reliable as possible; allowing for data to be verified (cross-checked) through triangulation; and improving the transfer of critical knowledge to key stakeholders.



Monitoring and evaluation (M&E) guides for programmes and projects by the IFRC and IUCN

- Assessing the availability of secondary data: an important consideration when it comes to data sources is the availability of reliable secondary data. This refers to data not directly collected for the project or by its team, but which can nevertheless meet the informational needs of the landscape guide by providing information on relevant aspects whilst maintaining a certain distance from the system, or being used to help triangulate data sources and verify (prove) primary data collected directly as part of the landscape guide. The criteria relating

The evaluation process of a landscape guide, which encompasses both its creation and implementation, involves analysing its method and results based on a set of parameters for the purpose of improving them.

to reliability and relevance applied to primary data must also be applied to secondary data.

- Determining the balance between quantitative and qualitative data: the pros and cons of each type of data should be considered, these depending on the nature and objectives of the monitoring process. Sometimes, qualitative methods will reveal aspects or issues in the initial stages of implementation of a landscape guide that can subsequently be explored in more detail using quantitative methods. Conversely, quantitative methods may bring to light certain situations which can be looked at in more depth through qualitative methods.
- Triangulating data collection sources and methods: triangulation is the process of using different sources and methods for data collection. This helps ensure that the data collected is valid, reliable and complete.

b) The second group involves tasks relating to sampling. In certain cases, collecting data on all relevant individuals (inhabitants, visitors, etc.) or on all occurrences of a particular feature (for example, all land used for growing grain, all country paths/roads or all infrastructure representing rural heritage) is simply not possible. In such cases, sampling is used, something which involves collecting data from a subgroup to make generalisations about the larger population. The sample population must be representative of the larger population. This group involves the following:

- Establishing requirements for sampling: this includes four steps. Firstly, deciding on which indicators in the evaluation table require sampling; secondly, determining the appropriate sampling method (random sample, purposeful sample, or a mixed-methods approach); thirdly, establishing the



## Example of an evaluation plan table, based on the template provided by the IFRC

### [Monitoring objective]

Goal:	To represent the effect or achievement of the objective.
Calculation 1:	<p>This refers to how the objective is monitored. It may involve establishing one or more related indicators further on in this plan table.</p> <p>If multiple values are involved, here the weight given to each one in order to calculate the indicators may be given, in accordance with what has been agreed upon in the landscape guide.</p>
Assumption 1:	This is the basic argument used to explain how the goal given and the use of the associated indicators will lead to the objective in question being attained.

### Indicator 1. Name of the indicator

Definition and unit of measurement	<ul style="list-style-type: none"> <li>▪ A textual explanation of the indicator (what it involves, what it measures, etc.).</li> <li>▪ A description of all the aspects involved in calculating the indicator, and the values or attributes of the variable.</li> <li>▪ In the case of a qualitative value, the range of possible values and their conversion into a numerical value.</li> <li>▪ In the case of a quantitative value, the unit of measurement.</li> </ul>
Data collection	Sources: own data, data provided by institutions or stakeholders, etc.
Responsibility	The individual appointed by the coordination team to monitor the indicator.
Information use/audience	The audience and subsequent use of the indicator: partial or final reports, external and internal monitoring reports, etc.
Frequency and schedule	When and how often data will be collected for the indicator. This should include collection dates as well as other key dates.

### Indicator n°.

....

sample frame or type of variable (for example, rural heritage linked to water or commercial unirrigated olive groves); and fourthly, determining the size of the sample. In terms of the latter, equations involving key design variables, such as significance (also known as confidence level) and the margin of sampling error, may be used.

- Preparing for any surveys needed for indicators in the evaluation table: these generally use interview techniques (questions or statements that people respond to) or measurement techniques. Surveys can be classified in a number of ways and involve specific requirements when it comes to calculating the size of the sample, this being based on the specific method used (in person, by telephone, email, etc.), the manner in which the survey questions are asked (semi-structured or structured surveys), and the function of the survey (descriptive survey, comparative survey, etc.).

- Preparing specific data collection tools and methods: this essentially involves preparing guidelines to ensure standardisation, consistency and reliability in the data collection process. It may include creating internal requirements to be followed during the various data collection tasks; training data collectors; creating mechanisms to gather feedback from stakeholders at all levels and turning this into information that can be evaluated; designing self-monitoring or internal review mechanisms for the monitoring commission; and using time resourcing sheets.

c) The third group relates to data management. Data management refers to all the processes and systems used to systematically and reliably store, process and provide access to evaluation data. As such, it involves the following:

- Planning for data management based on a series of key considerations, such as:

- the format in which data is recorded, stored and reported, ensuring compatibility through standardised formats and templates;
- the organisation of data into logical categories in order to increase its access and use, be it chronologically, by location, by content, etc.;
- the availability of data, ensuring it is available to the monitoring commission or intended users and taking into account key considerations such as access, how easily it can be searched and found, archiving and dissemination;
- the security of data, taking into account legal requirements regarding privacy and confidentiality;
- information technology;
- the quality control of data, something which involves establishing procedures for checking and cleaning data as well as treating missing data; and
- the responsibility of the team or individuals charged with data management.

- Using an indicator tracking table for recording and monitoring indicator performance: this is a tool for recording and monitoring indicator performance for specific reporting periods (monthly, quarterly, etc.). As a minimum, it should contain basic information for the measure included in the landscape guide and the information for the indicators linked to the landscape quality objectives.

- Using a risk log (table): this can prove very useful when it comes to managing evaluation data, as it allows us to establish thresholds beyond which it would be too costly or impossible to continue implementing measures designed to attain a certain landscape quality objective. This log records and rates risks as well as allows strategies for handling them to be established.

When planning for evaluation, three big areas need to be considered: the data fed into the evaluation system; population sampling; and evaluation data storage, processing and access.

## An introduction to working with indicators

### Definition and requirements

Earlier on in this chapter, we mentioned the role of indicators in planning for monitoring and evaluation within the context of a landscape guide. The purpose of this section is to look at the concept and implementation of this important tool for analysis, which is extremely useful for evaluating policies, plans and projects, and may be used in landscape guides.

Areas such as political economy, human geography, development cooperation, the study of ecosystems and the analysis of sustainability, to name but a few, have their own definitions for the term ‘indicator’, all similar but with certain nuances resulting from the context in which they are used. Furthermore, definitions vary significantly within a single language and across different languages. For example, in certain Romance languages, an ‘indicator’ is a term used in semiotics (more commonly known as an ‘index’ in English) to refer to a type of sign, i.e. anything that refers to something else. Other working definitions, however, regard an ‘indicator’ to be a variable or representation of one or more attributes or values (quality, feature, ownership, etc.) belonging to a system.

## Evaluation plan from *A Guide to the Cultural Landscape of Bolonia Bay*

Evaluation objectives	Strategies	Goals	Aspects to evaluate	Indicators / evaluation techniques
Effectiveness of implementation	Evaluating strategic objectives	To evaluate the evolution of the landscape based on the strategic objectives	Overall situation (landscape uses, activities and resources)	Landscape evolution indicators
	Evaluating specific actions	To evaluate the effects of the measures	Degree of attainment and effects of the measures	Indicators for the measures and their effects
	Evaluating the degree of satisfaction	To gain insights into stakeholder opinion	Levels of engagement, conflict and perception	Interviews and workshops
Degree of implementation	Evaluating agreements and available resources	To put forward improvements to the multiannual programme	Adjustments in terms of resources Degree of collaboration from stakeholders	List of planning instruments and sources of funding

Whatever the case may be, indicators must fulfil a range of functions for them to effectively convey a model of reality, an abstract construction created by humans of an aspect of their physical or metaphysical environment that they wish to monitor, measure, study, analyse, etc. Within this context, indicators must allow us to identify, evaluate and foresee conditions and trends, as well as compare different places and situations.

Within the area of cultural heritage, in the 1980s international organisations such as ICOMOS and UNESCO became aware of the need for new management instruments to evaluate the state of conservation of protected areas. Traditionally associated with ecological and environmental management initiatives in places of natural heritage, indicators of all kinds are now used within the context of monuments and sites as well as groups of territorial heritage assets in cultural landscapes.

Within the context of cultural heritage, broadly speaking, indicators should be used to assess the state of its values, including 'outstanding universal value' or OUV, a concept crystallised by UNESCO for World Heritage properties, in addition to any others that are established. As such, it is important these be taken into account by those involved in heritage management planning. In order to make sure they are effective, when establishing indicators, every effort should be made to ensure they:

- are limited yet adequate in number;
- are sensitive to change and thus able to show whether management actions are making an impact;
- have a clear and measurable relationship to the phenomenon being monitored;

Indicators should meet a series of criteria to ensure they are effective at conveying a particular model of reality. They must allow us to identify, evaluate and foresee conditions and trends, as well as compare different places and situations.

- are able to reflect long- and medium-term changes, rather than short-term small or local variations;
- incorporate as much data as possible (including in terms of geographic scope) for a particular phenomenon;
- detect new pressures;
- require procedures that are as simple and cost-effective as possible;
- are associated with clear thresholds; and
- are identified, designed and monitored in a participatory manner.

It follows on from the above that indicators should also be:

- Relevant: each indicator should provide important and significant insights into the system in question, i.e. a landscape in this case.
- Credible: the information provided on the landscape must be accurate and reliable.
- Feasible: their cost must not be disproportionate in terms of their relevance or the resources used for the plan, project or landscape guide.
- Legitimate: they must not reflect the interests of any particular stakeholder.

As a tool used to represent a particular situation, indicators may be used for four main purposes:

- Generating a model of reality: a system of indicators allows us to shed light on the complexity of the parts and interrelations involved in a system such as landscape.
- Carrying out simulations: indicators may be used to simulate the effects brought about by reasonable changes to certain parameters. This allows us to visualise and foresee new scenarios or behaviours in a landscape.
- Monitoring: this is what most people associate indicators with. Here, they are used to track and evaluate plans and programmes (to give just two examples), and may be applied to landscape guides.
- Predicting the future: by using historical data, indicators allow us to make predictions and estimations relating to the future.

### Design and use

Indicators provide a wealth of information on various aspects of a particular situation and should be tailored to each specific case.

- As indicators are a reflection of the real world, before they are designed, the complexity of the interrelations that exist inside and outside of the system they relate to must be thoroughly researched and understood in order to ensure they reflect their nature (hierarchical, functional, etc.). Likewise, the attributes that define each system must be identified if we are to design indicators that are relevant. To achieve this, basic research may initially need to be carried out.
- The complexity of real-world systems, of which landscapes are an example, means different sources and types of data are required in each case.



As such, indicators may be quantitative as well as qualitative. Where the purpose of an indicator is to quantify a phenomenon, a qualitative variable may be used and associated with a quantitative value, for example, as part of an ordinal scale.

- Based on the aggregation of attributes of a real-world system, what are termed 'scalar' indicators may be obtained. This is where the variable is formed by a single value calculated using two or more values or attributes forming part of said system. Examples include the number of hectares covered by a forest, the area of land used to grow fruit or the number of inhabitants under 18 years of age. Vector indicators, for their part, are where independent indicators can be presented simultaneously and interpreted as a representation, for example, of the state of a system. Examples include the annual rate of loss of woodland in order to grow fruit or population decline in places at 1500 m or more above sea level.

- Indicators may be used with various scales. It is important these are analysed in order to establish which one allows them to best fulfil their ultimate purpose, i.e. to represent reality. Here, it is useful to design indicators that do not just show changes over time (i.e. processes), brought about by successive measures, but also indicators able to show more short-term variations or fluctuations, for example in the physical environment (i.e. territory) or population (i.e. society), to name just two examples.

- Indicators may involve value judgements (either direct or indirect). This is particularly useful when using them as a decision-making tool, this being one of their core purposes. Being aware of this allows us to design indicators which involve value judgements, either directly during the measurement or observation process when an opinion, preference or aesthetic judgement is required; as a comple-

ment to what is observed through measurements and upper and lower thresholds, between which the variable must fall; or in a weighted manner through the use of weighting coefficients previously established to produce a total.

This methodology allows us to design indicators tailored to the reality of each landscape guide. Based on this, we could talk about an indicator development cycle that sees the participation of experts from each academic field involved (using the scientific method), the relevant institutions and social groups (essentially local inhabitants). This cycle should be based on a number of basic premises, namely:

- Participation: as many stakeholders as possible should be included in the indicator design process, including those involved in the creation and implementation of the landscape guide. Depending on the specific situation, it may be useful to group teams together based on what each indicator involves or aims to achieve. The techniques that may be used for generating insights/knowledge and bringing about agreement in a participatory manner are wide ranging, and include workshops organised around the Delphi Method or Visualisation in Participatory Programmes technique (known by its Spanish acronym VIPP), as well as the use of forms and questionnaires aimed at individuals or communities.
- Deconstruction: when seeking to understand a landscape in order to create indicators that are suitable for its landscape quality objectives, the system in question must be divided up and structured in a logical manner. The indicators used for the monitoring and implementation of a landscape guide should not be considered to be a mere set of values, but should have a real utility for the landscape guide.

For example, they may be grouped according to the environment or area involved (town planning, physical environment, built heritage, etc.), causality (the effects of a landscape guide on socio-economic development, landscape quality, etc.), the landscape quality objectives previously established, or geography (by uniform geographical areas, etc.).


- **Filtering:** once indicators have been grouped as described above, it is important to check they meet at least the four criteria mentioned earlier on in this chapter, i.e. that they are relevant, credible, feasible and legitimate. In many cases, based on this exercise, the initial list of indicators will be optimally reduced in number, something which helps ensure effectiveness and efficiency, core objectives of the monitoring plan.

- **Implementation:** lastly, the monitoring commission must define and describe each indicator selected. Their relationship to the landscape quality objectives or any other relevant thematic aspect must also be explained. For the purposes of standardisation, each indicator must be defined in detail, with information on the following being provided (to give just a few examples): how it is calculated, the type and format of units of measurement used, and the thresholds or ranges of values involved. Information on data collection for each indicator should also be provided, this including the team or individual responsible, the frequency of data collection, etc. This information should be included in the evaluation plan table and indicator tracking table mentioned earlier on in this chapter.

To conclude this section, it is worth noting that the IFRC, in its Project/Programme Monitoring and Evaluation (M&E) Guide, stresses the importance of including monitoring and evaluation as an integral part of the implementation of projects.

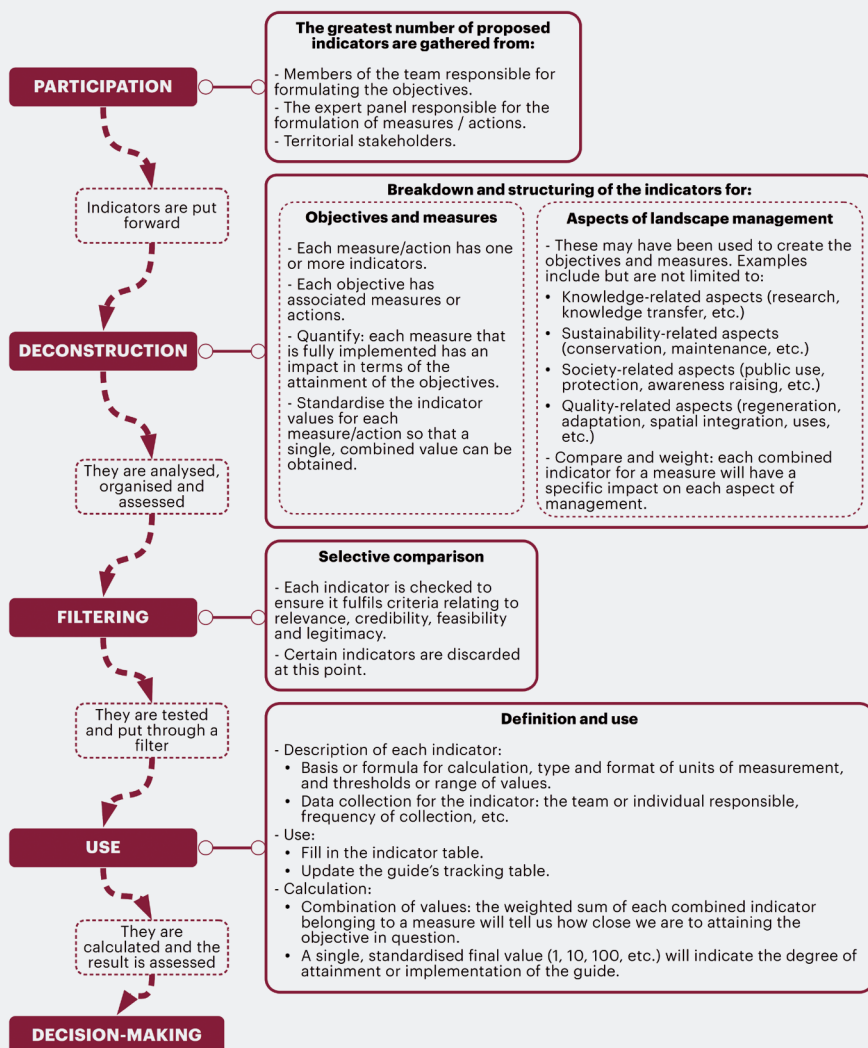
## A reactive guide based on adaptive management

The insights obtained as part of the monitoring process of a landscape guide should not just result in changes being made to the actions and measures implemented, and therefore their impact at a territorial, cultural or socio-economic level (to give just three examples), but also to changes to the internal workings of the guide itself. It may be argued that the first achievement of a landscape guide is creating a reactive working environment which allows for the consolidation of a cultural landscape management model that is adaptable, resilient, responsible and sustainable, and results in the landscape becoming stronger and more resilient in the face of pressures or trends threatening its preservation or development.

A particularly useful publication in this area is *World Heritage Cultural Landscapes: A Handbook for Conservation and Management*  by UNESCO, which can be used in many different contexts. When it comes to managing landscapes on the World Heritage List, the concept of Reactive Monitoring is important where an indicator shows that the state of conservation of a landscape is under threat. Here, management is adaptive and involves a systematic and ongoing decision-making process designed to improve the management, organisation and implementation system of a guide. This management model requires all stakeholders to react in order to change or do away with specific actions or approaches, or create new ones, where they consider this necessary.

Ensuring the results of evaluations relating to the internal workings and effects of a landscape guide are taken into account in practice (i.e. not just in

## The standard process involved in creating and implementing indicators for a landscape guide



writing) is at the heart of adaptive management. This allows us to effectively correct any aspect of the guide over its life cycle.

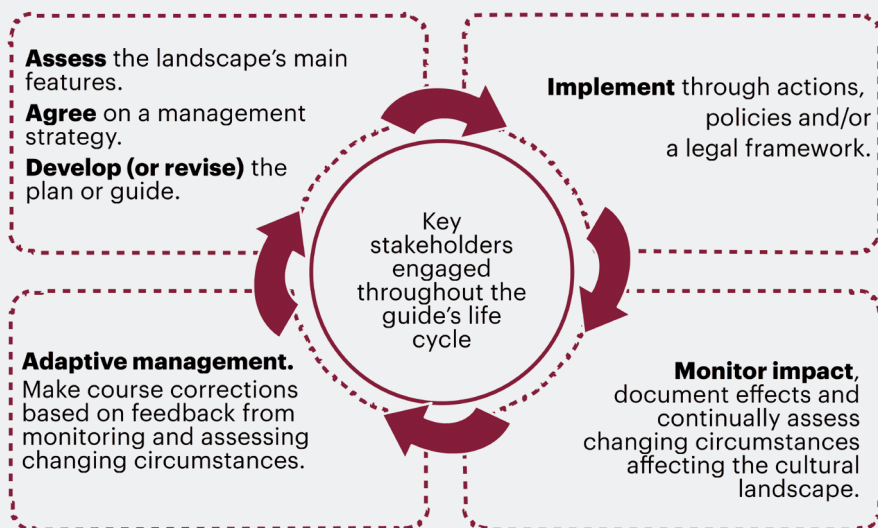
Within this context of adaptive management, the following points should be put into practice, as a minimum:

- Thresholds should be set for the indicators regarded as being key to the process.
- As with other well-known areas of project management, insights gained into deficiencies, mistakes or failures in terms of any action, measure or procedure implemented must be taken on board.
- Based on thresholds being reached as well as insights into deficiencies, mistakes and failures, a series of corrective (i.e. reactive) measures should be put into place, these representing adaptive changes to the guide.
- This strategy may involve forming a team to monitor the risk thresholds, planning for different scenarios and introducing measures that faithfully reflect changes in the landscape.

### **A landscape guide over time: commitment and governance**

A solid and long-lasting commitment based on trust and joint responsibility amongst stakeholders is key when it comes to the survival of a landscape guide over time. These issues (including their formalisation and procedures as part of the broad concept of governance) are commonly seen in the planning, programming and implementation of public and public-private policies. Particularly relevant here is the EU report *Participatory Governance of Cultural Heritage* [↗](#), which includes a selection of best practices based on participa-

## The management cycle involved in an adaptive model applied to cultural landscapes (UNESCO)



tory governance and compares them to traditional forms of governance.

Once again, development and cooperation policies in the 1970s and environmental policies in the 1990s were the first to establish, experiment with and consolidate new approaches to shared responsibility in governance. These processes became more and more widespread, being used at an international

level by governments and communities to manage development aid programmes; and at a European level to manage extensive public funds for environmental programmes aimed at agriculture and protection, where an extremely important role continues to be played by owners. Experiences in this area have played a major role in shaping the very standardised and well-tested solutions to governance we currently see, which are compatible with any geographic scale and institutional model for stakeholder relations.

Article 11 of the Council of Europe Framework Convention on the Value of Cultural Heritage for Society [↗](#), signed in Faro in 2005, lays out a series of requirements for governance. This article relates to the organisation of public responsibilities for cultural heritage, and involves the parties undertaking to: promote an integrated approach by public authorities in all sectors; develop the frameworks which make possible joint action by public authorities, owners, experts, businesses, etc.; develop innovative ways for public authorities to co-operate with other actors; respect and encourage voluntary initiatives which complement the roles of public authorities; and encourage non-governmental organisations concerned with heritage conservation to act in the public interest.

A series of documents recently published by the EU focusing on governance within the context of cultural heritage may also be highlighted. One example is the 2018 report Participatory Governance of Cultural Heritage (mentioned above), published as part of the Work Plan for Culture 2015-2018 [↗](#). This publication focuses on how participation can be put to practical use in the ordinary and everyday governance of cultural heritage. Chapter three



analyses the nature of practices in participatory governance of cultural heritage from a set of current national best practice examples, which it looks at in the light of the following factors:

- The initiator
- Motivation
- Obstacles encountered
- Impact or change observed
- Lessons learned

In terms of lessons learned, these include: the governance process is part of the result; bottom-up and bottom-down approaches are necessary and complementary; transparency is key to the process; and connecting (i.e. generating close interaction between) all kinds of heritage is essential.

Lastly, section II.3 (Methods of Implementation) of the Guidelines for the Implementation of the European Landscape Convention [↗](#) states that the means of implementing landscape policies (an example of which is a landscape guide) may be either regulatory or voluntary. According to these guidelines, voluntary implementation includes agreements, charters, quality labels and contracts between the authorities and relevant stakeholders.

Given that heritage and landscape management policies are more likely to succeed where the competent public authorities are able to generate willingness and commitment amongst the entire population (including the owners of assets they wish to preserve and maintain), the references above are particularly relevant, and represent a recent interest in bringing new experiences in governance to the field of heritage management in general and cultural landscape management in particular. This

# Differences between models of government and governance (EU)

	Government	Governance
Main actors	State (central, regional, local government, etc.)	Different constellations of actors (state, civil society, market, etc.)
Pattern of interaction	'Command and control'	Cooperative systems of negotiation and collaboration
Role of the state	Authority	Collaboration
Overall responsibility	State	Decentralised
Planning, implementation and evaluation	State	Different actors, multiple arenas

is something that may be done by drawing on a wide range of practices tried and tested in other areas (particularly in agriculture, the environment and ecology, as mentioned above), adapting these to the needs of the landscape guide in question.

In Spain, examples of such governance practices being used in officially recognised cultural landscapes are few and far between. One such example (despite differences in terms of continuity, stakeholders involved in management, and scale) is the territorial governance structure established in the Management Plan for the Serra de Tramuntana [↗](#) (Mallorca), mentioned in its nomination file for in-

A solid and long-lasting commitment based on trust and joint responsibility amongst stakeholders is key when it comes to the survival of a landscape guide over time. These issues, part of the broad concept of governance, are commonly seen in public and public-private management strategies.

scription on the World Heritage List as a cultural landscape.

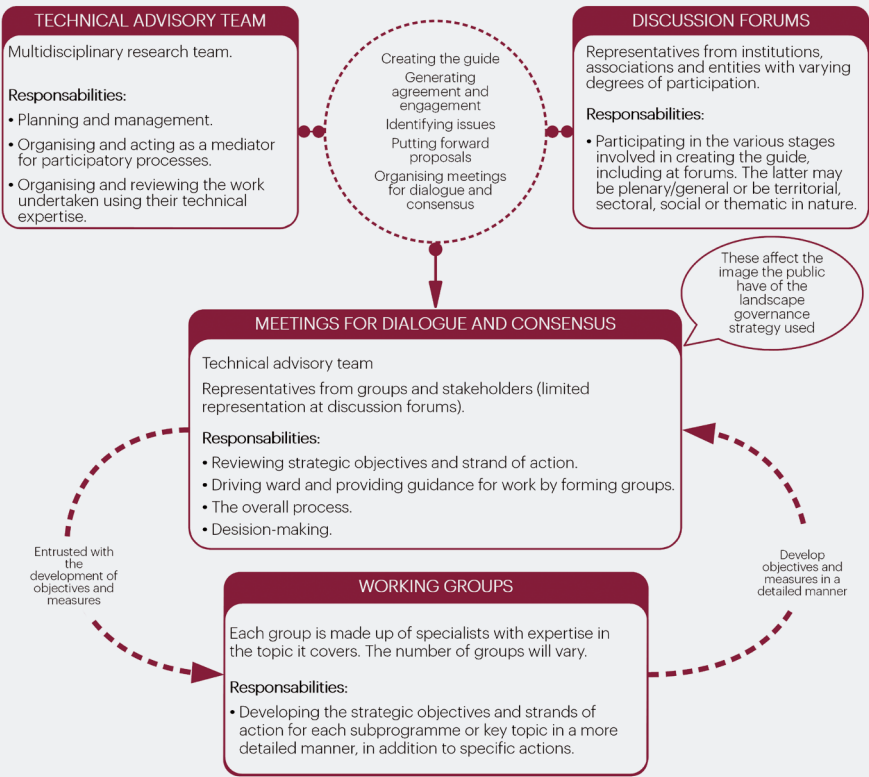
This area, which allows for countless possibilities and in the future will likely become standard practice at an institutional level, with established and even regulated procedures, has given rise to very sophisticated approaches to governance, particularly at a territorial and landscape level. Collectively, these are included under the concept of land stewardship. A particularly relevant publication in this area is the manual [published by the Catalanian Land Stewardship Network](#), a resource used by other such organisations.

This strategy may complement or help with the implementation of other conservation instruments and policies covering a particular area. Unlike other more conventional forms of governance, stewardship involves two or more stakeholders with an interest in the preservation of the values of a particular area.

The stewardship organisation (which promotes or channels action); owners and stakeholders of various kinds (the local/societal actors affected by the action); and the stewardship agreement (the formalisation of the commitment undertaken) are the three pillars of stewardship. The following should be taken into account in this area:

- The stewardship organisation should be created in line with the objective put forward by those leading the initiative. It should be made up of the body or institution responsible for promoting the action as well as other relevant stakeholders, organisations and individuals. It may be set up as a non-profit public or private organisation and work in collaboration or partnership with a private association or foundation involved in natural heritage, cultural heritage or landscape conservation; government, such as a city hall; a consortium; or other institutions, to name but a few examples. These organisations complement action taken by the public sector, and are particularly useful and efficient due to their expertise and independence. This allows them to effectively engage and maintain regular contact with individual and group landowners. They provide support, advice, material resources and funding for stewardship initiatives, and indirectly create a sound, long-term framework by creating and implementing a management plan.
- Individual and group owners include those who own or use the land under stewardship. They may be private citizens, their number depending on the asset(s) in question, although they often include one or more public stakeholders, such as the state, regional authorities or local authorities. In the broadest meaning of the term, they may also include all those involved in the exploitation or management of the land (agriculture, livestock

# Model of governance put forward in *A Guide to the Cultural Landscape of Bologna Bay*



farming, fishing, etc.); those with an interest in its conservation (volunteers, associations, etc.); and businesses, driven by issues relating to their operations or corporate social responsibility, to give just two examples.

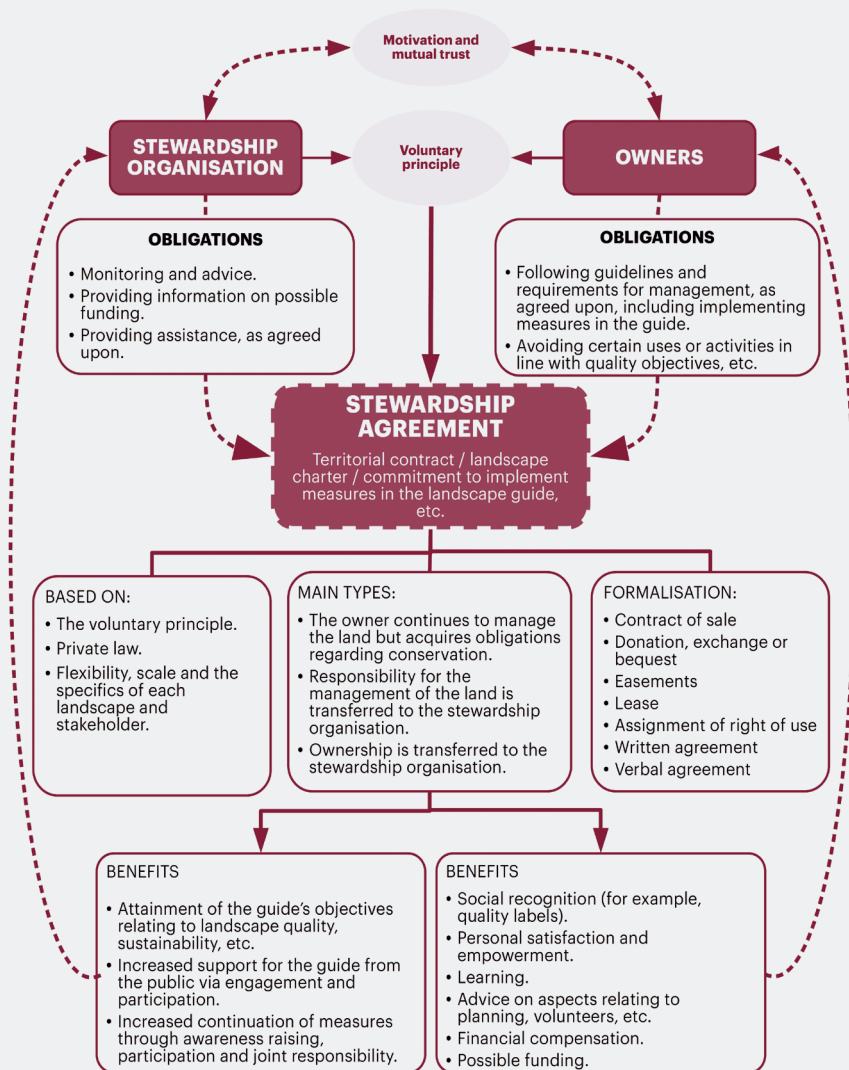
- The stewardship agreement represents the formal expression of the synergy that led to the creation of the stewardship organisation. It is based on a participative and multidisciplinary model of management, and addresses the obligations and benefits of all those involved. Various stakeholder agreements may exist (with each stakeholder) and each one may differ in terms of content. Whatever the case may be, they should be flexible and be designed in line with the objectives established for the area relating to landscape quality, the integration of heritage, awareness-raising and public use, etc.

### Overview and experiences of participatory governance

Participatory governance projects, which include land stewardship initiatives, are particularly common in forest, agricultural and environmental management. As such, we find the greatest number of examples in the area of natural heritage management.




Generally speaking, the number of stewardship projects varies significantly throughout the world. This is due to sociocultural reasons and history, with some countries having a particularly long tradition when it comes to land stewardship, such as the USA and UK, where it has been used since the end of the 19th century. Over time, the concept has come to encompass other equally interesting areas, such as cultural heritage and landscape.

# The management cycle involved in an adaptive model applied to cultural landscapes (UNESCO)





Initiatives in this area are commonly brought together and promoted by private (or sometimes semi-public) non-profit organisations, which are independent from politics and government. These organisations provide a forum where a wide range of groups, interests and types of stewardship are able to converge. The following particularly stand out:


#### USA:

- Land Trust Alliance : founded in 1982, it represents over 1000 land trust members and their more than 4 million supporters.
- The Alliance of Historic Landscape Preservation : founded in 1978, it has members from more than 30 U.S. states and several Canadian provinces.
- The Cultural Landscape Foundation : established in 1998, its main focus is raising awareness (through education and awards) and drawing attention to threats.

#### UK:

- National Trust : founded more than 125 years ago, its mission is to look after nature, beauty and history across England, Wales and Northern Ireland through an extensive network of members and volunteers.
- National Trust for Scotland : founded in 1931, this organisation currently has more than 350,000 members. It has a general focus on history, archaeology, nature and landscapes.

#### Portugal:

- Quercus  – Associação Nacional de Conservação da Natureza (National Association for Nature Conservation): established in the 1980s, this organisation focuses on agricultural, environmental and ecological issues.



Spain:

- Xarxa per a la Conservació de la Natura [↗](#) (Network for the Conservation of Nature): this network serves as a focal point for stewardship initiatives in Catalonia.
- ADENEX [↗](#) – Association for the Defence of Nature and Resources in Extremadura: the work of this organisation focuses on agriculture and the environment.

A number of specific examples of participatory management in World Heritage cultural landscapes may also be highlighted, such as the Blaenavon Industrial Landscape [↗](#) (UK), through the Forgotten Landscapes Project [↗](#); and the Vineyard Landscape of Piedmont [↗](#), through the Association for the Heritage of the Vineyard Landscapes of Langhe-Roero and Monferrato.