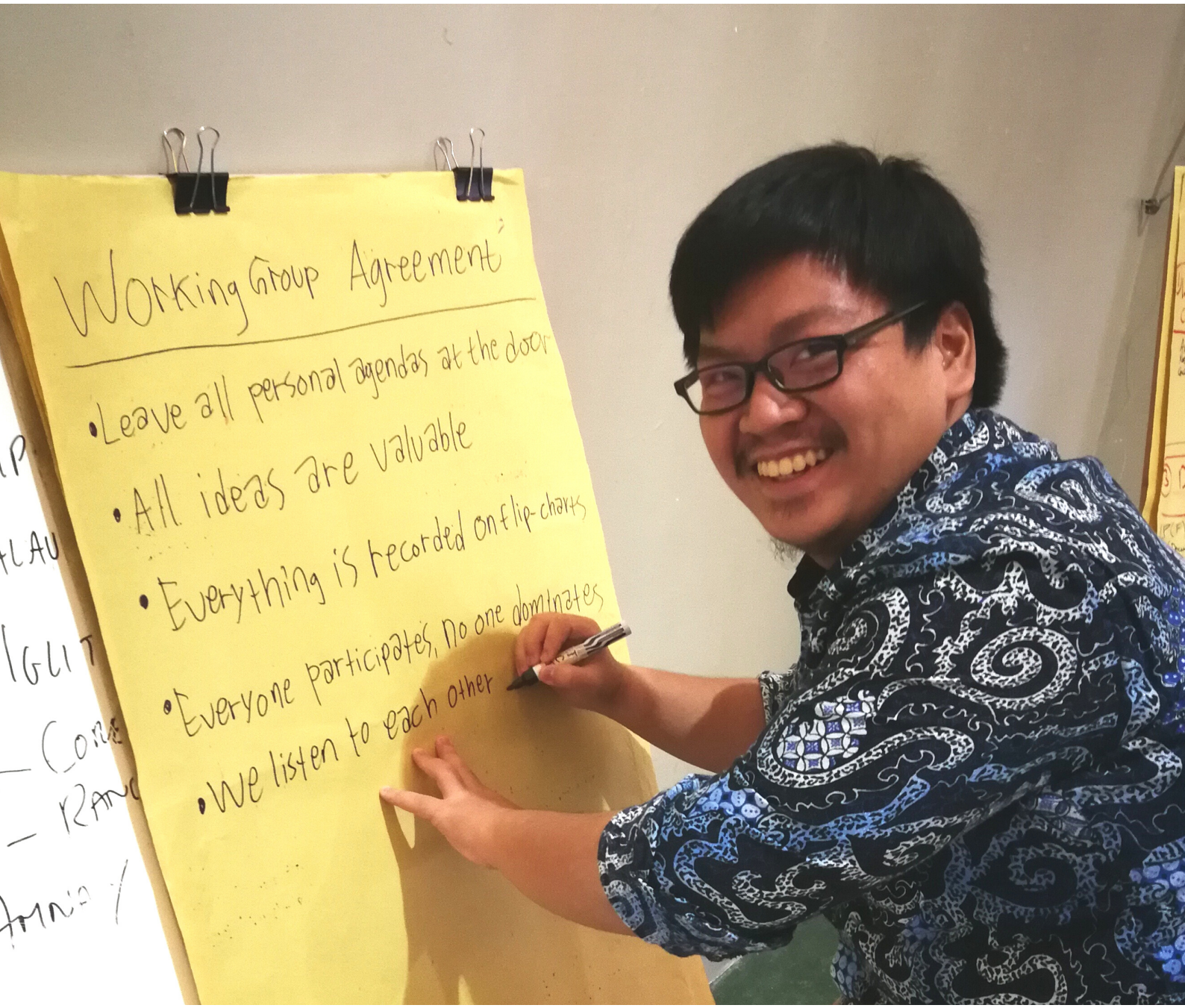
A FACILITATOR'S GUIDE TO SPECIES CONSERVATION PLANNING



CPSG.ORG

IUCN SSC Species Survival Commission

CONSERVATION PLANNING SPECIALIST GROUP
Changing the Future for Wildlife

A contribution of the IUCN/SSC Conservation Planning Specialist Group

Copsey, J.; Lees, C. and Miller, P. (eds.). 2020. A Facilitator's Guide to Species Conservation Planning, Ver. 1.0. IUCN SSC Conservation Planning Specialist Group: Apple Valley, MN.

An electronic version of this report can be downloaded at cpsg.org.

Contents

1.0 Introduction

1.1 About this guide

There is no single 'right way' to develop a plan for the recovery of a threatened species. However, in probably the majority of situations, there will be more than one individual or organisation that has an interest in what happens to a species or will be impacted by any attempts to conserve the species. Where multiple entities have influence over what conservation interventions will be permitted or accepted, effort will be required to achieve some form of consensus. Face-to-face meetings can be a highly effective way of achieving such consensus, particularly if these meetings are facilitated by a third party. The 'Facilitator's Guide to Species Conservation Planning' has been designed for these situations recognising the multiple benefits of group decision-making (**Table 1**).

Benefits of running an effective multi-stakeholder workshop
• Generate information available only in people's heads • Create a safe environment to discuss differences of opinion, values and concerns • Facilitate learning and development • Stimulate innovation and creative thought • Challenge 'received wisdom' and entrenched positions and prejudices • Build trust and a common language • Minimise hierarchical barriers and encourage mutual respect • Create a sense of a common cause • Achieve agreement on priority threats, strategies and actions • Provide a motivation to act • Assign responsibilities and accountabilities

Table 1. Benefits of group decision-making within a face-to-face workshop

This guide consists of a resource pack of process design, thinking tools and interpersonal skills that help to develop you as an effective facilitator, in particular of species conservation planning processes. The handbook should be seen as a complement to other IUCN Guidelines, all of which provide valuable insights into the stages of effective species conservation planning, including Breitenmoser *et al* 2015, Reintroduction and other Translocations (IUCN/SSC 2013), Species Conservation Planning (IUCN/SSC 2017), Use of Ex Situ Management for Species Conservation (IUCN/SSC 2014) and Wildlife Disease Risk Analysis (OIE/IUCN 2014). These publications explain *why* you might undertake species conservation planning and *what* stages you will often go through. **The current handbook focuses more on the *how* you undertake such processes when a decision has been made to conduct a multi-stakeholder workshop as a core component**. In particular the handbook is designed to provide guidance for those keen to follow the IUCN SSC Conservation Planning Specialist Group's (CPSG) participatory approach to species conservation planning.

This Guide provides the process design, thinking tools and interpersonal skills you need to facilitate collaborative planning events to recover threatened species worldwide.

1.2 About the Conservation Planning Specialist Group (CPSG)

'…the wild population of Okinawa rails has increased to around 1,500…By working with [CPSG] to organize their collaborative conservation efforts, stakeholders have given these living national monuments a second chance to thrive.'

Established in 1979, the IUCN SSC CPSG (www.cpsg.org) has assisted in the development of conservation plans involving over 260 species and more than 600 workshops held in 71 countries. Species such as the Okinawa rail (pictured above) are now in recovery, thanks in part to the collaborative, evidence-based plans that have been produced. To date, we have trained more than 850 conservation planners and technical planning experts to enable them to lead their planning processes and launch new recovery programmes. In addition to developing species action plans, CPSG supports organisations to develop their strategic plans, including multiple zoos and aquaria.

CPSG has been instrumental in developing and promoting the One Plan Approach, that refers to the need for broad stakeholder involvement in the planning process and that we should acknowledge *all* individuals of the species, whether *in-* or *ex-situ*, within our conservation planning, for the sake of species recovery. CPSG has had a long history of association with the global zoo community, valuing its potential to play a role in species recovery. The recent production of the *IUCN Species Survival Commission Guidelines on the Use of Ex situ Management for Species Conservation v2* (IUCN-SSC 2014) is one example where CPSG has played a leadership role in guiding the future development of zoos as conservation organisations.

In addition to developing planning-related guidelines (e.g. concerning wildlife disease management (OIE IUCN 2014), CPSG has been central to the development of a suite of conservation planning tools. It works in partnership with the *Species Conservation Toolkit Initiative* (SCTI) to ensure that new innovations needed for species risk assessment, evaluating conservation actions, and managing populations are developed, globally available, and used effectively.

"[CPSGs] collaborative, inclusive, and science-based approach to planning…ensures that it delivers the most effective conservation action to protect future generations of threatened species."

Simon Stuart, IUCN Species Survival Commission Chair, 2008–2016

1.3 CPSG workshop philosophy

By focusing on how we exchange information and gain agreement between those people that have an interest in or influence over any particular conservation intervention, we believe we can achieve the most effective outcomes for threatened species and the systems on which they depend. Through the development of interactive, participatory workshops it is possible to create an environment in which 'expert knowledge' (not restricted to scientific knowledge, but involving all knowledge based on an understanding of the species) can be used to analyse problems and develop solutions that have a good chance of success (PHVA Workshop Process Reference Packet 2010). This likelihood of success is based on a combination thinking deeply about the topic and doing so in a way that encourages people to accept the outcomes and so support decisions made. By ensuring recommendations are reported immediately after the workshop process, we can help stakeholders and other decision-makers to maintain momentum and ensure plans are turned into actions.

Whilst the most effective conservation actions are likely to be identified through an analysis of available biological information, it is people and their values which will determine whether this analysis leads to actions being implemented. Stakeholder groups concerned may live close to the target species and rely on similar natural resources, or may be governments and other authorities at the local, regional, national or international level. Incorporating sociological, economic and political aspects into our biological understanding of the system is critical to the development of meaningful conservation actions (PHVA Workshop Process Reference Packet 2010).

One of the most effective ways of achieving this integration involves the facilitation of one or more multi-stakeholder workshop(s) in which information can be shared and analysed in the light of what people really care about. Through a process of neutral facilitation in which we identify the most important issues, seek agreement on what groups want to achieve, analyse data, help them to solve problems and set strategies and actions, we can achieve consensus on what practical management steps can be taken to change the status-quo. It is important to ensure that **all individuals of a species are considered within the plan** and so CPSG applies a 'One Plan Approach', engaging all responsible parties (stakeholders) and all available resources within the process.

CPSG's stakeholder-focused approach to species conservation planning is based on a deep understanding of human behaviour (Conway 1995; Byers and Seal 2003; Westley and Miller 2003) in relation to how we:

- Acquire, share and analyse information
- Perceive and characterise risk
- Develop trust
- Permit or discourage 'territoriality' (personal, institutional, local etc.) from getting in the way of effective collaboration

Our workshop process has been designed to bring together the full range of stakeholders that share an interest in or influence over the conservation of a species (or group of species). A common goal of CPSG workshops is to reach a common understanding of the scientific knowledge available (from published, and unpublished literature and importantly from within people's heads!), and how we can use it to make informed management decisions. Key to success is for workshop participants to 'own' the ultimate plan and we apply facilitation processes to help encourage this.

1.4 Assess: Plan: Act

Planning is an essential component of efforts to recover threatened species. It is the link in the cycle between Assessment of a species (to determine its current threat status and likely future trajectory), and Action to conserve it (**Figure 1**).

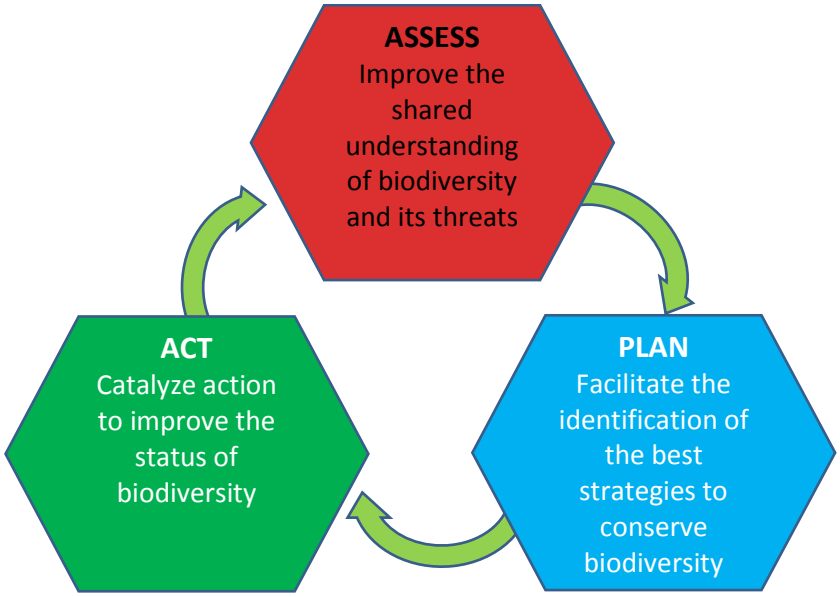
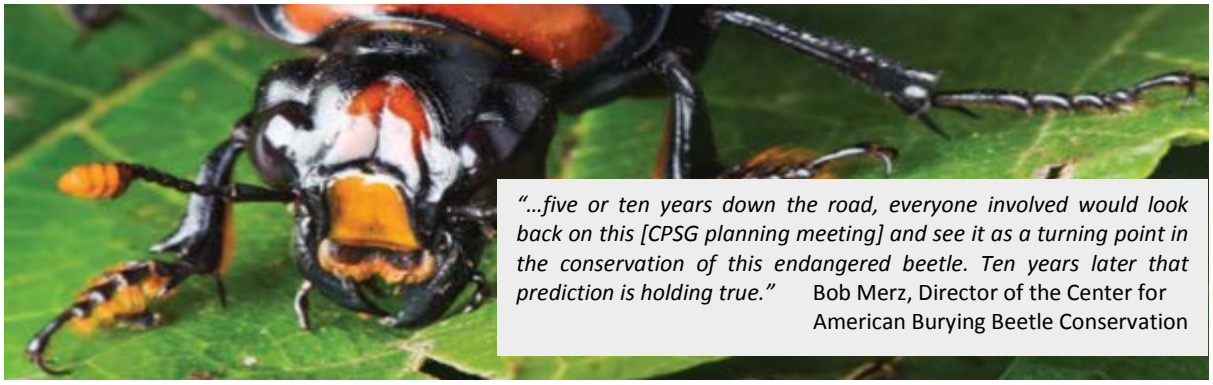


Figure 1. IUCN/ SSC Species Conservation Cycle for species conservation

The IUCN Red List of Threatened Species (https://www.iucnredlist.org/) provides a globally-recognised standard for establishing the level of endangerment of species, sub-species and populations. In addition, it collates the key threats to the species according to the individuals involved in conducting the assessment. When complete, this assessment acts as a valuable baseline from which planners can then begin to identify the most appropriate strategies and actions to reverse the decline. Developed collaboratively, these plans can then provide clarity over what those involved in the planning process have agreed on and so inform action 'on the ground'. The extent to which action leads to changes in species status can then inform subsequent assessments, and the cycle continues, each time allowing for learning about the system and improvements in decision-making and implementation to be incorporated and hone the planning process.

1.5 Process versus Task



"…five or ten years down the road, everyone involved would look back on this [CPSG planning meeting] and see it as a turning point in the conservation of this endangered beetle. Ten years later that prediction is holding true." Bob Merz, Director of the Center for American Burying Beetle Conservation

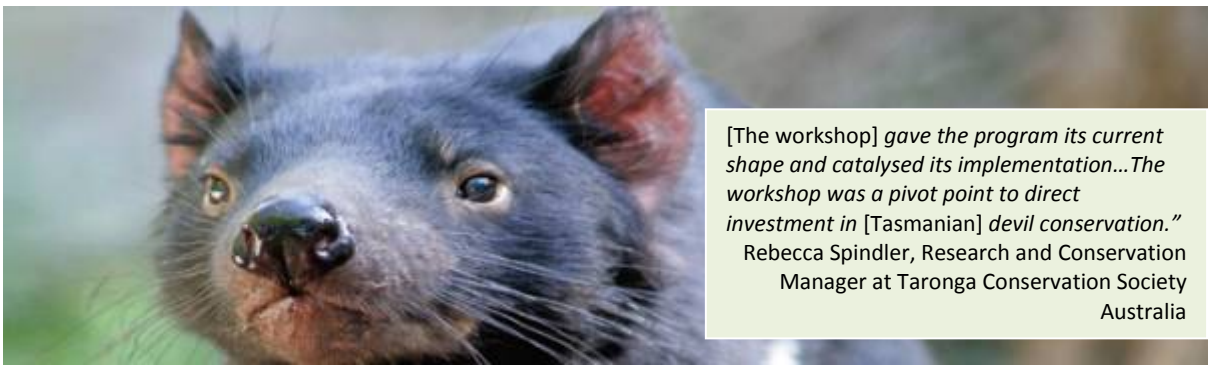
Sunita: *"What we need to do is to decide whether wild-to-wild or captive-to-wild translocation will have the highest chance of success".*
Caroline: *"I think we should write a list of all the options and discuss which one is best".*

This sort of exchange is not uncommon within discussions over the conservation of threatened species. Both Sunita and Caroline may well be justified in their statements. However, they are talking at cross-purposes. Sunita is concerned with the **TASK** whilst Caroline is focused on **PROCESS**; one highlighting *what* they are meeting to discuss whilst the other is highlighting *how* they might go about doing it. More emphasis is usually placed on task-related versus process-related conversations during meetings to make conservation decisions.

By neglecting process, we risk making inefficient use of limited resources (people + their time) (Mann 2007), and risk producing sub-optimal decisions. When problems or decisions are complex, involving multiple interests, and where uncertainty in the information or the outcomes of any planning work are high, this is when it is particularly important to spend time clarifying the process by which a planning task will be achieved. Within species conservation, these elements are almost always present!

CPSG has spent time developing a multi-stakeholder inclusive workshop process that helps diverse groups come together to plan for species recovery. It is this planning process that we come to next.

1.6 The Species Conservation Planning Process



[The workshop] *gave the program its current shape and catalysed its implementation…The workshop was a pivot point to direct investment in* [Tasmanian] *devil conservation."*
Rebecca Spindler, Research and Conservation Manager at Taronga Conservation Society Australia

1.6.1 Introduction

This history of endangered species conservation planning is typically characterized by a general dependency on creating crisis-driven actions in the face of scientific uncertainty, or a hesitant approach to addressing risk that results only in broad recommendations for action that do not provide practical guidance to management authorities. Consequently, we recognize an urgent need for technical tools and deliberative processes to characterize such things as: the risk of species extinction or habitat degradation; the predicted impacts of human activities on species persistence; the predicted effects of management interventions on future population stability; and how to develop and sustain learning-based cross-institutional management programs.

Effective conservation planning methods also rely on an understanding of human sociological dynamics. Local management agencies, external consultants, or local experts will often identify endangered species management actions that are based on traditional principles of wildlife biology and ecology. However, these more narrow professional approaches seem to have little effect on the political and social changes required for collaborative management of threatened species and their habitat. This specialized approach is a natural consequence of our specialist academic training, but usually fails to produce truly integrated solutions that will appeal to a broad domain of stakeholders and – more importantly – achieve more effective species conservation.

The CPSG recognizes these complex issues that define endangered species conservation planning. Our scientifically based tools and processes are rooted in the traditional disciplines of population biology, genetics, and ecology, but are also explicitly linked to methods based in the dynamics of human social learning. Information is analyzed using these tools to improve risk characterization and species management decision-making. At the same time, attention to the deliberative process helps to create realistic and achievable recommendations for both in situ and ex situ population

management. Our conservation planning workshop processes provide an objective environment and neutral facilitation that support the sharing of information across institutions and stakeholder groups, fostering agreement on the issues and information, and enabling stakeholder groups to make useful and practical management recommendations. This approach often surfaces and integrates previously unpublished information that is of great value to the decision making process.

CPSG knows that a workshop process driven by practical decision-making – featuring risk characterization methods, stochastic simulation modelling of wildlife population dynamics, management scenario testing, and deliberation among stakeholders – can be a powerful tool for extracting, assembling, and exploring information. The process encourages developing a shared understanding of issues and solutions across a broad spectrum of training and expertise, and helps to create working agreements and local ownership of the threats to wildlife survival and the management decisions required to guard against extinction. As participants work as a group to appreciate the complexity of the conservation problems at hand, they take ownership of the process and of the ultimate management recommendations that emerge. When this local ownership takes hold, effective conservation will follow.

1.6.2 The CPSG Conservation Planning Cycle

At their core, all CPSG species conservation planning workshop processes share some form of a common template – a structured set of sequential steps that guide the development of an effective conservation plan (Figure 2). The remainder of this section is devoted to describing these steps in more detail as they are applied in a typical CPSG-facilitated species conservation planning workshop. The final section will briefly describe related workshop processes used by CPSG to assist with more specific elements of planning for species survival.

Figure 2. CPSG's broad approach to species conservation planning. Steps in green identify pre- or post-workshop activities, while steps in blue outline activities that occur during the conservation planning workshop itself.

The process is similar to a range of other planning processes used within the conservation sector, distilling down to the following core set of questions:

- What are we trying to achieve?
- What is the current situation?

- How could we intervene to improve the current situation?
- Who will do what to ensure we get there?
- What have we learnt from the process?

At each stage there will be periods of 'divergence' (when groups generate information and ideas) and 'convergence' (when groups prioritise and agree on information and ideas to move through to the next stage in the process). Some groups will naturally go through these stages in the development of a plan, each time challenging themselves to do their best thinking. In many- if not most- situations though, groups need help to go beyond developing quick and potentially premature decisions, as we find out in the next section of this Guide.

We use this eight stage 'generic' planning process to provide a framework on to which we hang appropriate thinking tools and interpersonal skills (**Section 3.0**), explaining how you would apply the steps within a multi-stakeholder, species conservation planning workshop context. Here we provide a summary of what happens at each stage in the process.

1.6.2.1 Prepare to Plan

At this point in the process, CPSG staff has been invited by an organizational representative to conduct a species conservation planning workshop. When the two parties agree to move forward with the planning, it is important for them to create a solid foundation on which the process will proceed. First, the overall scope of the process needs to be defined. This is typically defined both taxonomically and geographically: the number of taxa/populations that are the subject of detailed planning, and their spatial distribution. With few exceptions, no more than 1 – 3 distinct taxa are considered in order for detailed action planning to be feasible.

The expected output(s) of the process should also be clearly identified in this early stage – required level of detail to be included in the final actions/recommendations, partial or full consensus across workshop participants on those actions, etc. When these steps are complete, an organizing team should be formed to oversee the identification of stakeholders who will participate in the planning process, the development of the process design (details of the planning steps), and the choice of appropriate analytical and deliberative tools to use at the appropriate process step. Finally, the planning team and associated experts can begin assembling key information on the system of interest (species, habitat, threats, etc.), conducting necessary analyses using this information, and addressing important elements of how the recommendations emerging from the planning process will be implemented.

1.6.2.2 Define Success

An important element to address early in the planning process is the participants' definition of success of a given conservation plan and its associated action steps. What does an ideal future look like for the species or populations under consideration? A Vision statement describes the desired, ideal future state of that entity at some point in the future – 25, 50, or perhaps even 100 years from the present – and creating that Vision provides a mechanism for capturing what participants (stakeholders) care about most deeply as they construct their conservation plan. While the Vision is meant to be broad and aspirational (e.g., multiple viable populations of the species distributed across its historic range), it should also make clear the metrics that should be used to measure progress towards achieving the expressed desired state (e.g., a viable population is defined as one with <10% risk of declining to a minimum abundance within the next 50 years).

1.6.2.3 Understanding the System

At this point in the planning process, participants assemble and assess an array of information on the current status of the species: recent trends in population abundance, past and current threats to species or population stability, and diverse challenges planners and managers may face that impede progress towards achieving the Vision. The threat analysis often is communicated in diagram form, showing not only the biological impact of a given threat to a species (e.g., increased adult rhino mortality), but also the direct nature of that threat (e.g., illegal poaching for rhino horn) and the higher-level drivers of that threat (e.g., international demand for rhino horn to satisfy the traditional human medicine industry). Ideally, threats and challenges are prioritized using one or more tools to provide guidance on future threat mitigation planning efforts.

Population viability analysis (PVA) is a very useful tool to bring in at this stage in order to most effectively understand past and present population dynamics of the species or population of interest. PVA typically involves the use of computer simulation models to bring together data collected in the field on population demographic, ecological and genetic characteristics of the species. With this information, we can make predictions of the risk of population decline and/or extinction under a host of assumed future scenarios. At this stage of the planning process, we use PVA models to assess the risk of decline or extinction under the assumption that current conditions of threats and their management remain unchanged going forward in time. This "baseline condition" is a control of sorts, to which other future threat- or management-based scenarios can be developed and compared.

The use of PVA as a quantitative risk assessment tools is a vital component of a CPSG-facilitated conservation planning process focusing on just 1-3 taxa. This process element places specific demands on identified subsets of the full range of participants – primarily, the field biologists who collect population-level information that is used as input data for the simulation model – with detailed discussions often taking place in separate virtual or physical workshops taking place during the larger conservation planning effort.

1.6.2.4 Agree on Goals

With an established picture of prioritized threats and challenges to species conservation, and a clear understanding of the likely fate of the species under current baseline conditions, planning participants can now identify where specific management interventions are most likely to improve the long-term status of the species or populations – in other words, to help achieve the conservation Vision. These interventions are referred to here as Goals, and are meant to describe higher-level activities that will address the threats and/or challenges to population viability. For example, if illegal poaching of adult individuals outside of designated protected areas were identified as a high-priority threat to rhino population viability, then a stated conservation planning Goal would be "To reduce illegal poaching of adult rhino outside of local protected areas to level X by year Y". Time-sensitive specification of activities defining Goals adds important targets for future monitoring towards their achievement.

More than one Goal can be identified to address a given threat or challenge to species persistence. As with earlier steps in the conservation planning process, Goals should be prioritized – both within a given threat category and, of appropriate, across threats and challenges. This prioritization process gives a clear sense to urgency and importance across the identified Goals, which is intended to guide action to achieve the species conservation Vision.

1.6.2.5 Evaluate Alternatives

With the specification of prioritized Goals in place, planning participants now turn to identifying alternative management strategies that would achieve the Goals. These strategies are more detailed descriptions of activities that would ultimately ameliorate the threats and/or challenges identified earlier in the planning process. In keeping with other steps in this process, multiple alternative strategies can be identified, each potentially contributing toward achieving one or more of the Goals developed previously.

Once again, risk assessment tools like population viability analysis can play a vital role at this stage of the planning process. When alternative strategies are identified and specified in detail, the predictive PVA model is used to determine the extent to which extinction risk (or another appropriate metric) is reduced if that strategy were to be implemented. Stated another way, the tool can help to identify the extent to which a given strategy should be implemented in order to reduce extinction risk to a level that is consistent with the definition of success developed earlier. This and other tools for comparative analysis can be used to choose among these alternatives, and can specify the level of successful implementation required to achieve the associated Goal.

If we use our rhino poaching example, our risk assessment may reveal that the rate of removal of adults through illegal poaching must be reduced by 70% in order to reduce the risk of extinction to an acceptably low level. To achieve this, we may estimate that our proposed strategy of expanding anti-poaching patrols must include hiring no less than X additional officers to achieve the desired reduction in poaching incidents.

1.6.2.6 Specify Actions

The final hierarchical level of conservation planning involves the specification of detailed action steps that must be implemented to enable completion of the strategies identified in the previous planning step. These actions should be defined according to typical SMART-based criteria, including the specification of those responsible for organizing or completing the action, timelines and required resources, required collaborations, obstacles to completion, and appropriate measurement metrics to track ongoing progress. As throughout the planning process, actions for prioritized strategies should themselves be prioritized according to relevant criteria for a more clear understanding of the necessary implementation sequence required for success.

1.6.2.7 Prepare to Implement

Action planning is truly effective only if there is a coherent framework for putting the proposed actions into practice. This planning process step focuses on constructing that implementation framework – an organized “road map” of individuals and organizations that are tasked with implementing and coordinating the actions recommended by planning participants. Who will oversee the implementation at the strategic level? Who will take responsibility of specific projects? How will different project managers communicate their own progress among themselves to improve overall plan implementation? How will managers track progress on their own projects and those of their colleagues? These are all important questions that need some attention in the conservation planning process; without such attention, the plan may be relegated to a simple document that ends

up on the office shelf – regardless of its clarity of thought, rigor of analysis, and its attention to deliberative process.

1.6.2.8 Share, Learn and Adapt

After the completion of the actual planning process, the organizing team must then oversee production, review, revision and dissemination of the report that describes that process and the resulting product – the species conservation plan itself. A key element of the planning process dictates that the planning participants are encouraged to review and revise the report, thereby fostering a great sense of ownership among stakeholders and implementers of the product and the process that helped to create it. With this great sense of ownership comes an enhanced opportunity for successful implementation of the plan.

In addition to careful monitoring of the plan's action implementation schedule, the process design team also takes time afterwards to reflect on the strengths and weaknesses of the specific design utilized for the process. Throughout the full trajectory of the process, this team should document their activities and observations around the tools and facilitation techniques used at different process stages – where their use was beneficial and where it may have been more problematic. This reflective exercise is to be shared with colleagues for broader learning across different conservation planning contexts, and for adaptation of existing process elements based on this learning that can be applied more effectively in future conservation planning projects.

1.6.3 CPSG's Range of Conservation Planning Processes

Remember that CPSG's planning process as described above is typically applied to conservation planning for a single species or perhaps 1-2 additional, closely-related taxa. As the organization has evolved and expanded, additional processes have emerged that are closely aligned with the underlying planning framework, but are modified to serve particular purposes required by different conservation professionals. Each of these processes is discussed very briefly below.

1.6.3.1 Multi-Species Conservation Planning

Conservation planning for a large group of taxa – clustered according to geographic location, taxonomic identity, or impact from a common threat – is an active area of continued process design and evolution. The planning process described above is largely applicable to a much larger array of taxa, but with the deletion of detailed quantitative risk assessment through PVA. Such an intensive analytical process is simply untenable if applied to many taxa that may differ in life history, response to threats, home range ecological characteristics, etc.

As the number of species that are the focus of planning increases, the potential group of stakeholders and other important planning participants is also likely to increase. This can have a real impact on the design of the planning process – whether in the number of individual planning workshops that should be held, the duration of a given planning workshop, or the optimal sequence of planning steps across the breadth of the project. Additionally, effective conservation planning across many taxa is critically dependent on a comprehensive threat analysis across the full taxonomic range being considered. The analysis can reveal geographic or even taxonomic "hotspots" where a specific threat is particularly severe, or where many threats conspire to elevate extinction risk for specific taxa or regions.

1.6.3.2 Disease Risk Analysis

Disease risk analysis (DRA) is a structured, evidence-based process that can help decision making in the face of uncertainty and determine the potential impact of the introduction and/or transmission of infectious and non-infectious diseases on ecosystems, wildlife, domestic animals and people. Results from the DRA can help decision makers to consider an evidence-based range of options for the prevention and mitigation of disease risks to the population(s) under consideration.

At the "ideal" end of the spectrum of DRA process applications is a well-designed workshop in which an appropriate range of experts, stakeholders and decision makers are gathered for a facilitated, structured review and analysis of the scenario, typically over a period of 2-4 days. This group of individuals may physically meet only once, but they will be engaged in dialogue with each other over a more extended time, both before and after the workshop. A well-designed and facilitated DRA process can act as a vital bridge between the veterinary, medical and ecological disciplines that facilitates knowledge sharing across diverse disciplines, generating novel solutions to health concerns across the human-wildlife-domestic animal landscape, and creating new collaborative opportunities for both research and management.

As with the typical species conservation planning process discussed in the previous section, the use of quantitative risk assessment tools – simulation models similar to those used in population viability analysis – is an important element that helps drive evidence-based decision-making when, for example, evaluating the risk of novel pathogen introduction in proposed wildlife reintroduction programs.

Download the IUCN SSC Wildlife DRA Manual at http://www.cpsg.org/content/iucn-manual-procedures-wildlife-disease-risk-analysis

1.6.3.3 Integrated Collection Assessment and Planning

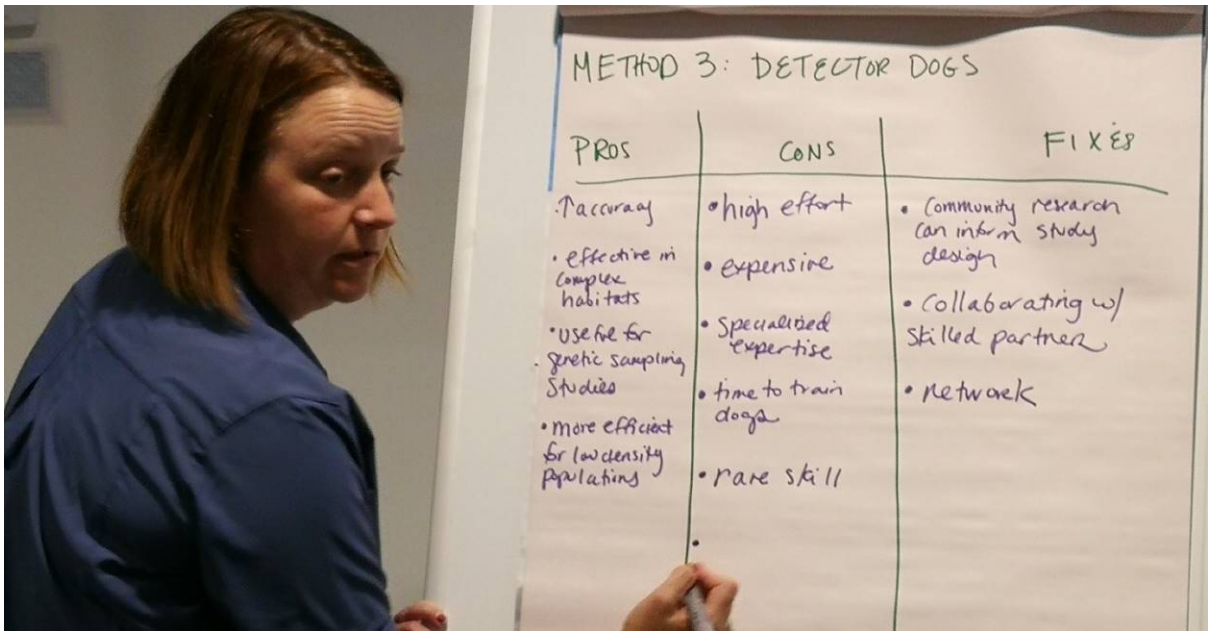
ICAP, or Integrated Collection Assessment and Planning, is a multi-species, rapid *ex situ* conservation assessment based on the decision process of the *IUCN SSC Guidelines on the Use of Ex Situ Management for Species Conservation*, jointly conducted by *in situ* and *ex situ* experts and designed primarily to assist regional zoo associations with setting conservation priorities for regional collection planning. This process is designed to be flexible and applicable to large or small groups of taxa at global or regional/local level, with the resulting analyses and recommendations being more general or detailed as appropriate and feasible. This same process can be used to identify not only direct *ex situ* conservation contribution, but also indirect conservation activities, such as *in situ* conservation support, and important non-conservation roles, if desired.

The ICAP process is structured around the five evaluative steps in the IUCN *ex situ* guidelines, making them more practical and streamlined when applied on a multi-species level by extracting their essential components to rapidly assess and prioritize *ex situ* resources and effort across multiple taxa. The process involves extensive pre-workshop data compilation and analysis followed by a multi-stakeholder workshop. All taxa within the taxonomic group should be included, both threatened and non-threatened, regardless of whether or not they are currently under *ex situ* management. The process should be a joint collaboration between those coordinating regional *ex situ* activities (e.g., Taxon Advisory Group) and the appropriate IUCN taxonomic specialist group or equivalent authority linking field conservation efforts and planning.

Download the IUCN SSC Guidelines on the Use of *Ex-situ* Management for Species Conservation at http://www.cpsg.org/content/iucn-ssc-guidelines-use-ex-situ-management-species-conservation-en-2014

2.0 The Facilitator's role

2.1 What workshop facilitators do



An effective facilitator will:

1) Encourage full participation
2) Promote mutual understanding
3) Foster inclusive decisions
4) Train in new thinking tools and interpersonal skills

By applying a combination of thinking tools and interpersonal skills, the facilitator will help groups to work more effectively together and at the same time help them to learn how to do it, potentially improving future performance.

Facilitation is about getting groups of people together to solve problems effectively, make decisions and develop plans. In so doing, the facilitator has a primary role in:

- Designing the group work process- *working out the sequence of divergent and convergent phases to reach particular decision points and how they relate to natural breaks;*
- Selecting appropriate thinking tools- *selecting appropriate problem-solving, decision-making etc. tools to help them do their best thinking in each phase;*
- Demonstrating and encouraging the use of interpersonal skills- *recognising that how people interact with each other during a group decision-making process will influence both the*

extent to which everyone engages in the process and the levels of acceptance over the outcome that are achieved.

Through development of process and tools and application of interpersonal skills, the facilitator can help groups to produce a higher quality plan; one which is ultimately implemented, and implemented effectively (**Figure 3**).

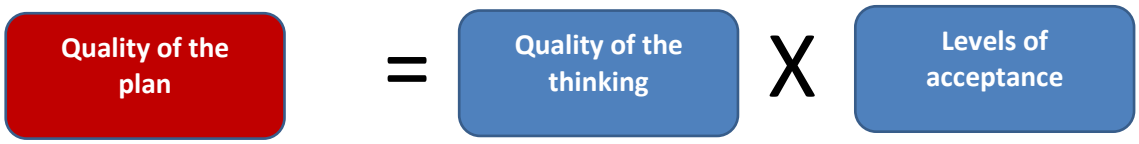


Figure 3. The 'facilitator's equation'

Facilitators will spend much of their time thinking about when to intervene to encourage deeper thinking or improved interpersonal relations and when to stand back and allow the group to develop its own dynamic. The facilitator's role is *not* to lead the group or necessarily even to be a constant presence; if the group has identified a process and all seem in acceptance with it, and you feel the group is thinking deeply about the point and is supporting others within the group to contribute (even if there is a difference of opinion), then the facilitator can stand back, at least for a while. However, there will be points within the planning process where the facilitator is likely to have to be more assertive in order to help the group navigate their way through.

Knowing (and most importantly *caring*) about the subject being discussed by the group is a double-edged sword for the facilitator. On the one hand it ensures that the facilitator understands the relevant vocabulary and themes, and so knows what elements of the subject should be delved into more deeply (e.g. where you know there is uncertainty in the scientific evidence available). On the other, the temptation is to intervene not with *process* (i.e. *how* the group could think through the subject), but with *content* (i.e. *what* material the group is using to make their decision).

Ideally, the facilitator will know enough about a subject to understand where further discussion should be encouraged, but not so much that they are invested in the outcome.

A facilitator should know enough about the subject to understand what is important, but not so much that they're invested in the outcome

In reality this can be challenging, as resource restrictions can mean that the leader of a team or the individual heavily involved in the project, may struggle to find other trained people to come in to facilitate; they end up facilitating themselves. In these circumstances, the facilitator should say to the group when they are stepping out of their facilitator's role to provide content (as another group member) and when they are stepping back into their role as facilitator- physically moving to show the transition from one role to the next can be helpful!

As we mentioned earlier, there is not a single 'right way' to undertake a species planning process; you need to select the process that is fit for purpose. Once you know what you want to achieve then you can design the process to achieve it. To inform this planning it is helpful to understand how groups make decisions, which is the topic we turn to next.

2.2 Understanding how groups make decisions

The Hungarian meadow viper: data compiled in advance of a planning workshop provided 'best available' evidence of population decline and a focal point around which workshop participants could put aside old arguments and develop trust on which they could base collaborative action.

Facilitating species conservation planning processes involves guiding groups of people through multiple decision-making points: *what are we trying to achieve? Who should be invited to the planning workshop? what are the major threats to the species?* Etc. When making decisions, groups tend to go through a number of stages (**Figure 4**) and often need help to navigate through some of them.

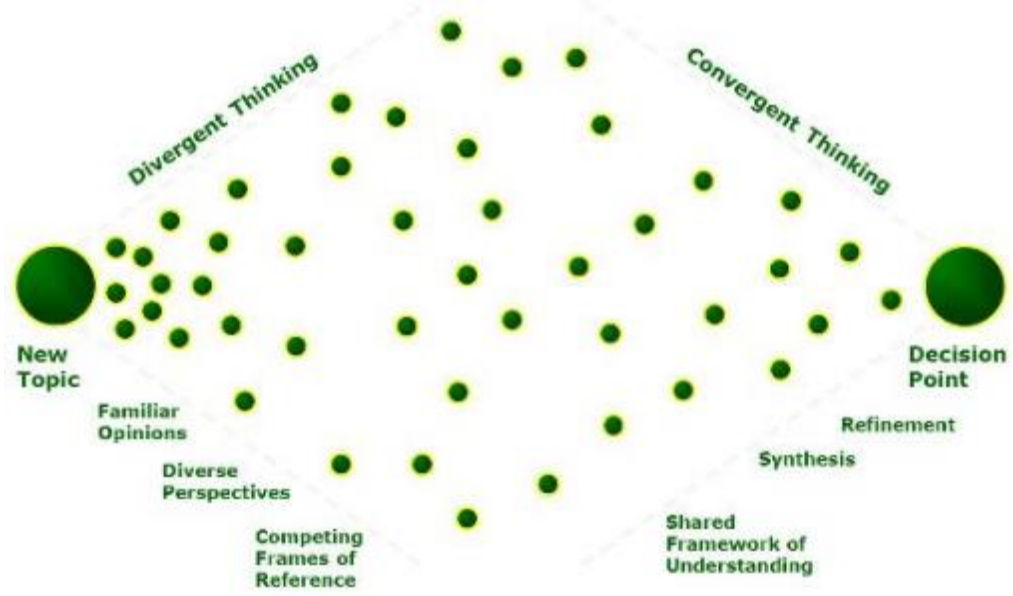


Figure 4. The Group Decision-making Cycle (from Kaner 2014)

When groups need to reach a Decision Point they begin to explore a New Topic, often beginning with Familiar Opinions about what should be done. Diverse Perspectives can be expressed, which often lead to differences of opinion about what the right course of action is (Competing Frames of Reference). This can cause apparent discord within the group, which can lead to the group closing down and making a premature decision (**Figure 5**). Alternatively, groups may discuss a range of familiar options and opinions and then a 'leader' steps in to make the decision and so bring the

discussion to a close. Sometimes groups are encouraged to think creatively about possible solutions to a problem, generating new ideas, but due to time constraints a quick decision needs to be made limiting the extent to which each idea can be evaluated and decisions agreed. So, through possible fear of the unknown, a decision-making process which doesn't require full agreement or simply a lack of time management, groups can often make premature decisions (**Figure 5**) which may not be the most effective or ensure that everyone in the group can at least 'live with' the decision.

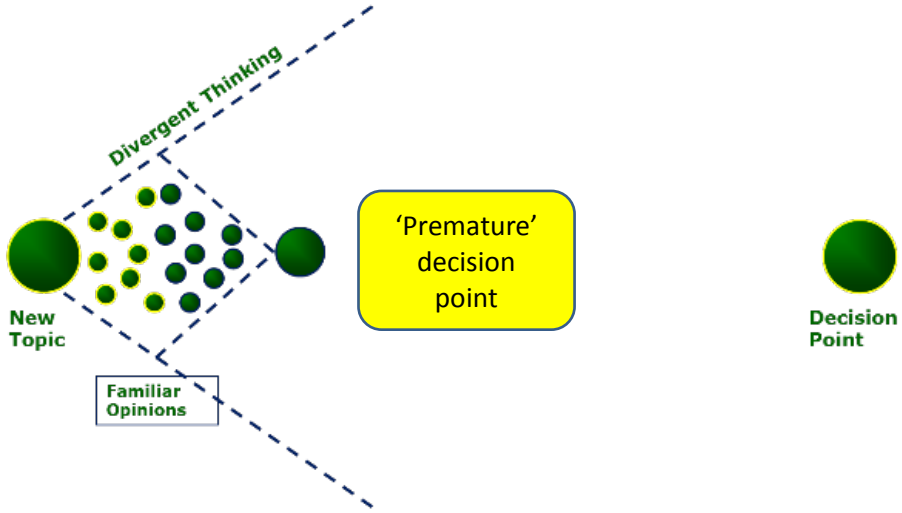


Figure 5. Reaching 'premature' decisions.

In this way either dominant individuals have the ultimate say or the group avoids the apparent conflict or time limitations by jumping to a quick decision. For simple situations this may be fine. But where situations are complex, where uncertainty is high and/ or where there are multiple stakeholders involved (as in many conservation decisions!), this can lead to poor decisions being made.

As a facilitator of this process your job is to support the group in going beyond these familiar opinions into what can sometimes be a challenging space, often called the 'Groan Zone' (Kaner 2014, **Figure 6**). In this stage, group members can feel frustrated and worried about each other and the process. Apparent levels of disagreement can be high, which can be unsettling. Group members can feel unsure about where the process is leading to and why they were there in the first place! Some members may feel that the group needs to collate more information or analyse the information further whilst others are keen to move to a decision. This is in part due to the different learning styles (**Section 4.3**) of individuals within groups and their tendencies to want to stay at or move to particular stages in the decision-making process.

As the facilitator one of your roles is to let everyone know that:

a) They're in the Groan Zone;

b) It's perfectly natural; and

c) Facilitation can help!

Figure 6. Emotions individuals experience during the Group Decision-Making Cycle

The group can feel as if it is at sea, without sight of the shore it came from or the shore it is aiming towards. It is at this stage in particular the facilitator needs to be prepared with a process to guide groups through along with thinking tools to help the group navigate its way through. Interpersonal skills will also be important to encourage at this point, as group members express their frustrations by talking over each other, having side conversations, or disengaging from the process.

During decision-making groups will go through periods of divergence (where they generate new information and ideas) and convergence (where they seek agreement over what is most important to focus upon)

You may find that within workshops that you facilitate that there are no Groan Zones, or there may be multiple (!) (**Figure 7**), depending on the number of opportunities groups have to diverge (where they generate information and ideas) and converge (where they seek agreement over what's most important to focus on and carry forward to the next stage).

Explicitly building in multiple phases of divergence and convergence can additionally benefit group work by:

- Recognising that individuals have different learning styles and so providing clear opportunities for natural divergers or natural convergers to feel most comfortable can enable each to relax and focus on the task at hand; and linked to this,
- Supporting and integrating contributions by both creative and more analytical thinkers;
- Punctuating analytical phases with creative points which can help to re-energise the group;
- Providing deeper understanding of alternative perspectives and opportunities; and
- Encouraging consensus as important differences of opinion are brought to the surface and, where possible, addressed

As group decision-making can be both effective and challenging to facilitate, it is helpful for facilitator's to have different options as to how they organise group decision-making processes. In the next section we consider a range of decision-making formats at a facilitator's disposal.

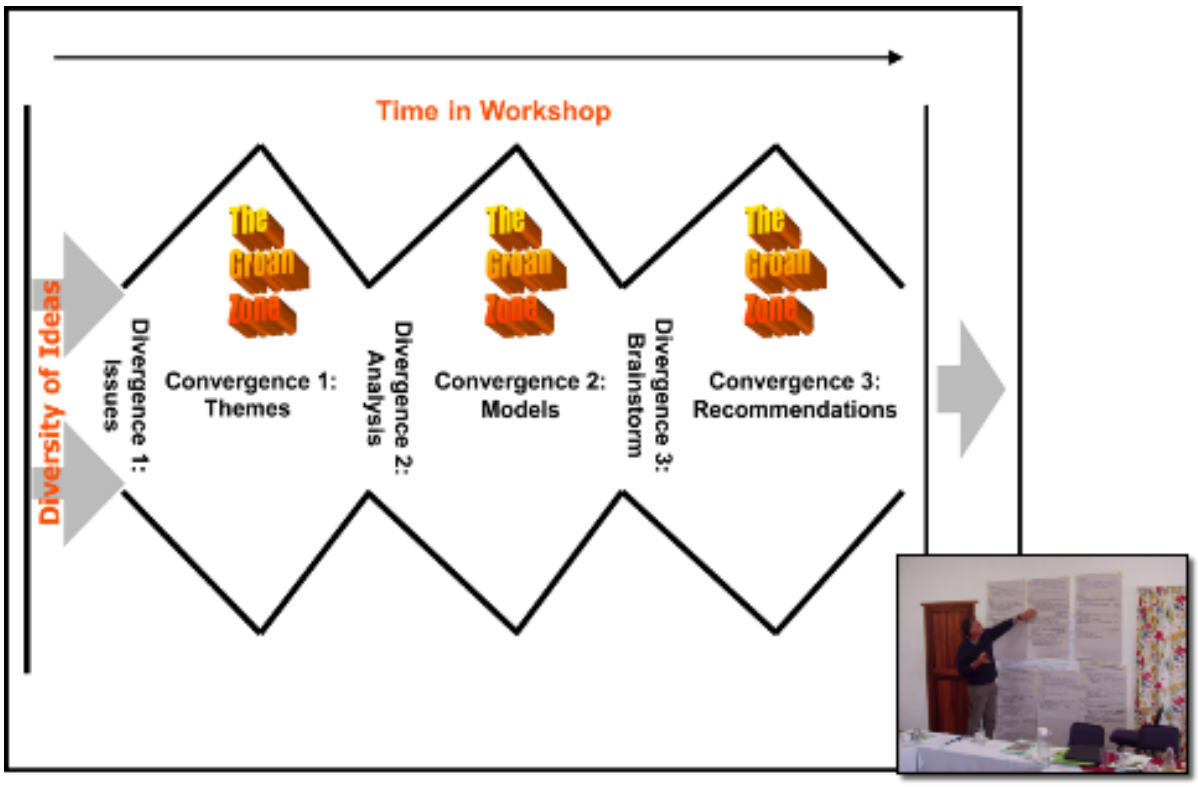


Figure 7. Multiple group decision-making process experienced within a typical CPSG planning workshop

2.3 Format options for facilitators

Format concerns how you will organise people (your main resource) to address the content of the meeting. There are four options for organising people to address the content of any meeting or workshop, each of which has its own benefits and limitations, and so are relevant to different situations (**Table 2**).

Format	Description	Benefits	Limitations	Useful when…
All	Everyone works alone on an activity using a given technique	Everyone can input their ideas/ feelings	Takes time to collate and organize all the individual inputs	There are dominant individuals and you want everyone to input without their influence
Group	Group works together doing the activity, using a given technique	Produces a mix of ideas/ feelings and reflects patterns across the group	Needs attentive skill to ensure that all individuals are 'heard'	There are some common but multiple views within the room and you want to reflect their perspectives
All to one	Everyone directs their input to one person who applies the technique	Opportunity to build on individual ideas/ feelings and takes less time	As with the group it is possible for certain individuals to not be heard if not managed	You want to cross-fertilize ideas and when there is no danger of one individual dominating the others
One to All	One person does the activity and applies the technique on behalf of group	Capitalizes upon individual expertise and can save time	It can lead to an individual dominating the group	There is an expert in the room and it will help the group to have them steer their thinking

Table 2. Different formats to apply to the process of a meeting or workshop (adapted from Mann 2007)

Within any single meeting or workshop you are likely to apply multiple formats, depending on the particular stage you are at within the planning process and how familiar you are with the dynamics of the groups being facilitated. Varying the format will help ensure that you are able to take advantage of each format's strengths and so enable the group to get the most out of the process. Once you've determined the most appropriate format you can then think about which thinking tools will be most helpful to provide a framework in which the group can achieve their aim and what interpersonal skills you will need to encourage within the group throughout the process.

2.4 Core thinking tools and interpersonal skills

So, a facilitator is concerned with encouraging groups to do their best thinking and find ways to achieve group acceptance of the process. To achieve this balancing act requires a suite of thinking tools and interpersonal skills that can be drawn on, like a toolbox, to support the process and train groups of people to interact more effectively (**Figure 8**).

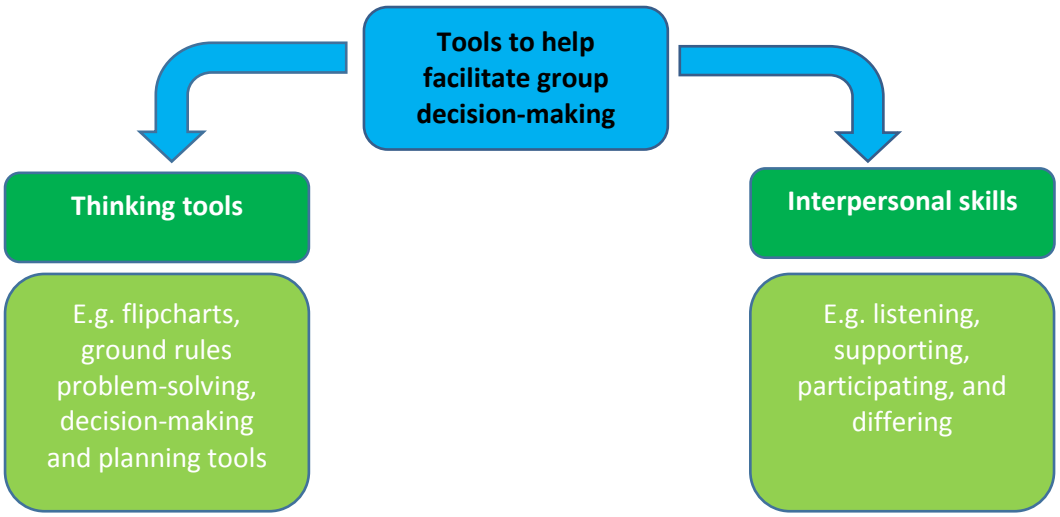


Figure 8. Example thinking tools and interpersonal skills to help planning processes

2.4.1 Thinking tools

Flip charts and other visual mapping tools

One simple way of ensuring that individuals within groups feel they have been heard, is to capture what they say visually on a flipchart, or some other form of easily-seen and built-upon method (e.g. laptop with projector). If you have been 'heard' then it is more likely that you will accept the process and so this can help with group decision-making. There are multiple other values of using a flipchart (**Table 3**), as well as 'Things to do' and 'Things *not* to do' to use them most effectively (**Table 4**).


Recording ideas on a workshop in the Seychelles

Advantages of using flipcharts to record group thinking
Provide physical focus for team task
Show that you have been heard
Free the mind to think
Enables checks to be made on understanding
Gets more of your brain working!
Depersonalizes the information- group not personal ownership
Enable us to analyses and see linkages
Allow us to tackle complex problems
Provides a sense of achievement
Allows for continuity between meetings

Table 3. Values of using a flipchart to capture group thinking

Do…	Don't…
Number the pages	Turn pages over- if you do this then the group has to remember what you wrote on previous pages
Leave space	Cram in the words
Different colours	Write selectively
Check understanding	
Draw linkages	
Ensure all can see	
Use mind maps	
Have masking tape or other means of sticking up pages onto a surface so all can see old sheets as you move on to new ones	

Table 4. 'Do's and Don'ts' of using flipcharts

One risk with flipcharts is that they can result in individuals having too much control. If as a facilitator, you're also the recorder, then you need to take care not to be selective about whose comments to write up. This is particularly important if someone else from the group offers to take on this role - they might not be trained in facilitation and may have a particular view about what is most important to record and so be consciously selective. This can reduce people's acceptance of the process and potentially lose valuable information. Being the recorder is a powerful position and should be allocated wisely.

Developing ground rules

When working groups are newly formed, have a history of imperfect working relationships, or simply consist of individuals who may be nervous about saying what they think in front of others, then 'supporting' is a key role for the facilitator. This can start with the introduction of a set of explicitly stated 'ground rules' to outline or govern how the group wants to interact with one another. An example set from a typical CPSG multi-stakeholder workshop is as follows:

- Leave all personal agendas at the door
- All ideas are valid
- Everything is recorded on flip-charts
- Everyone participates; no one dominates
- Listen to each other
- Treat each other with respect
- Differences and problems are acknowledged - not "worked"
- Observe time frames
- Complete draft report by end of meeting

The point is to try to create an environment in which everyone feels equally valued, regardless of their level of seniority within the organisation, livelihood, cultural background etc.


Recording working group agreement ('ground rules')

It can save time to have prepared a set of ground rules in advance of the working group (see right). If you do though, make sure you ask the group before you begin if there is anything they'd like to change in the list or add to, and ensure they can all accept them. If they don't accept the rules then you and the group will have difficulty enforcing them!

With the ground rules in place it is then easier for the facilitator (and for group members themselves) to support individuals and encourage others to give them space to express their ideas. Simply referring back to the rules, if there is one person talking over another, can be enough to encourage the more dominant person to sit back and allow the other person to finish what they're

saying. Sometimes you might need to be more forceful with dominant people and encouraging with less dominant individuals, to ensure everyone has their say. As a facilitator you want to intervene as little as you can, but sometimes you might have to stand up for one person and encourage another to hold their thoughts. Recognising group member's body language and also whether or not certain individuals have been quiet for much longer than others may give you a clue that you need to intervene to encourage them to contribute. Just asking them if they have anything they'd like to add might be enough. Or you may need to be a little more searching, asking them to explain to others what they mean, asking for examples or asking them clarifying questions (see listening).

Brainstorming

Brainstorming is one of the most commonly used (and sometimes misused!) thinking tool to help with divergent thinking. There are various ways of managing a brainstorm. You can give a time limit (usually relatively short, e.g. five minutes) and ask all to call out their ideas on a given subject whilst you record them. This approach (sometimes called "popcorn") can be creative when the group is composed of confident people who know each other, but can be a bit intimidating for less confident people or for those unsure of their status within a group.

An example of a completed brainstorm on data needs for planning a wild dog translocation

Brainstorm where each person writes their ideas on separate sticky notes

Alternatively you could adopt a "round robin" approach, in which each person in turn can call out their ideas; if they can't think of anything you jump to the next person in the group and continue working around the group in a systematic way until all ideas are exhausted. Where groups may be unsure of speaking out loud in front of each other you can get people to write down their ideas (make sure they write large and use pens which allow for all to see what is written; and write each idea on a separate piece of paper to allow them to be moved around afterwards!) within a given timeframe and then get them to bring their ideas to the front and stick up for all to see. This approach works particularly well where there are significant differences in hierarchy/ superiority within the group.

There are a number of other important 'Do's and Don'ts' with brainstorming (**Table 5**). A key element with all these approaches is that during a brainstorm *all ideas are captured*. There is no removing because of potential repetition or questioning because someone doesn't understand; this can come after the brainstorm is completed.

Do…	Don't…
Record all ideas	Say *"We've had that already"*
Encourage people to give	Say *"Ooh, good one!"*
Repeat/ rephrase question	Don't judge
Warn when end approaches	Start without setting time limit
Use mirroring- *repeat what someone says to inject energy and encourage other ideas to surface*	Interrupt
Remind people not to critique	Give up!

Table 5. Points to consider when running a brainstorming session

Winnowing and clustering

Once you have generated a long list of ideas by brainstorming, you then need to start making sense of it and you will often have to perform some form of prioritisation exercise to determine what is most important, what to deal with first or where to focus resources. Two steps that can help you to do this are 'winnowing' and 'clustering'.

Winnowing involves the removal of repeated ideas or those ideas which are genuinely not relevant to the discussion at hand. This is a process you want to undertake with the group as you need to ensure their buy-in and agreement with the final list or decision that comes out the other side. A nice way of re-energising the group is to get them to stand up and come to the front of the room where they can see all the ideas/ information that has been generated. Then either you or someone from the group can take the lead in starting to decide what information is repeated and so can be removed from the list. It can help if the brainstormed ideas are written up on separate bits of paper or can be moved in some way, as this allows for ideas to be removed but still viewed and potentially put back into the list if further discussion reveals that they add something additional to the information provided. It also means a number of people can get involved in moving ideas around and re-filtering the list to end up with a more concise set of ideas that everyone feels are distinct.

The next phase is to cluster (or group) the more concise list under particular headings or sub-headings, so that we can make sense of the categories of information provided. For example, a long list of ideas around the establishment of a new captive breeding programme might be broken down into ideas concerning enclosure design, reproductive management, disease and health, nutrition, research etc. Again it is important to ensure the group is leading this process as the discussions that go on in organising the list of ideas into groups may generate additional valuable information and will also encourage the group to better understand each other and build consensus. This process can take time though so make sure you build it into the agenda!

The sorts of questions you might ask the group when facilitating an activity to rationalise a brainstorm list might include:

- *Are there any ideas here which you don't understand or you'd like someone to explain to you (perhaps the person who came up with the idea in the first place!)?*
- *Can we rewrite any ideas so it is clear what is meant?*
- *Can you see any ideas which you think are repeated?*
- *Whomever wrote the ideas that we think are repeated, did you mean the same thing as the idea(s) already up there? Was there anything different going through your mind? Is it reasonable to remove it as the idea is already captured in another statement?*
- *Can we move the repeated ideas to one side so we can focus on the remaining list?*
- *Can you see any groups of ideas emerging from the list?*
- *Would someone like to come down and organise some of the ideas into one group and explain to others their rationale?*
- *Are there other groups of ideas we could form?*

When all ideas have been sorted into distinct groups try to get people to label each group so it will be clear to others what the groupings mean. Check also that people don't want to re-arrange the groups to make more sense of them.

Developing mind maps

Mind mapping is a form of structured brainstorming. It helps a groups make visual a broad pattern of concerns and so is a way of brainstorming and clustering at the same time. By asking every person to say where on the map to put his or her item, and what words to use, the facilitator avoids interpreting, controlling or shaping people's thoughts.

Preparing for mind mapping:

1. Take a blank piece of flip chart paper. Make sure it's large enough to allow you to capture the full range of ideas, whereas pre-drawn lines restrict the natural flow of your thoughts.
2. Use the paper in landscape orientation or combine sheets to create a square.
3. In the center of the paper draw a circle large enough to encompass the question you are brainstorming around. (The hard part is getting the question right. It's worth testing a few options with the group involved to make sure the question truly gets at heart of the issue.)

Ground rules for mind mapping:

- All items are valid- suspend judgement!
- We can modify this process before it starts or after it ends, but not while it's underway.
- Set time limit
- State ideas in short statements of 3-5 words. No one explains
- Ask only questions of clarification.
- Person who names the issue says where it goes
- Opposing trend are okay
- Give concrete example

The process:

- It's sometimes helpful to do mind mapping with everyone standing up near the sheet so that there is a lot of energy and engagement with the map
- Ask the central question to the group (ensure there is shared agreement as to precisely what it means)
- Invite participants to call out their response to the question
- Draw a line off the central circle and write this first response
- Invite people to call out responses as quickly as you can write them up on the map.
- When you get your second response, ask that person if what they've said is related to something already on the map or if it is a new issue. If it's new draw another line off the central circle, in a difference color marker, and write the item on that line. If it's related to

something already on the map, add a branch off the original line (using the same color as the original line) write this related item there

- Continue in this way until all ideas are up on the map
- Each individual cluster of related ideas will be in same color so will be clearly demarcated from the others

A mind map within a zoo strategic planning workshop

Mind maps encourage divergent and convergent thinking at the same time. This is both a strength and a limitation of the tool. On the positive side it allows for ideas to be organised as they are generated, and so can save time. This organisation may also encourage other ideas to surface. However, having to organise at the same time as being imaginative can be a challenge. People may edit what they are going to say as they think more deeply about how any new idea might link with existing ideas. This can be helpful if the focus is on deeper analysis of ideas. However, if the main purpose is to be creative, then this additional step can be limiting. Mind maps can be a useful tool to suggest when groups are confident in themselves and are also familiar with each other. Where groups are composed of individuals with different levels of confidence or perceived knowledge about a topic, or where the individuals in the groups may not have worked together before, it might be better to suggest a brainstorm first then organise and group ideas later, a process we will return to in the section on prioritisation tools.

There is a wide variety of additional thinking tools that are particularly appropriate for specific steps within the planning process which we will explore in later sections. Before we do so it's worth exploring some fundamental interpersonal skills which will help you as a facilitator, wherever you are within the planning process.

2.4.2 Interpersonal skills

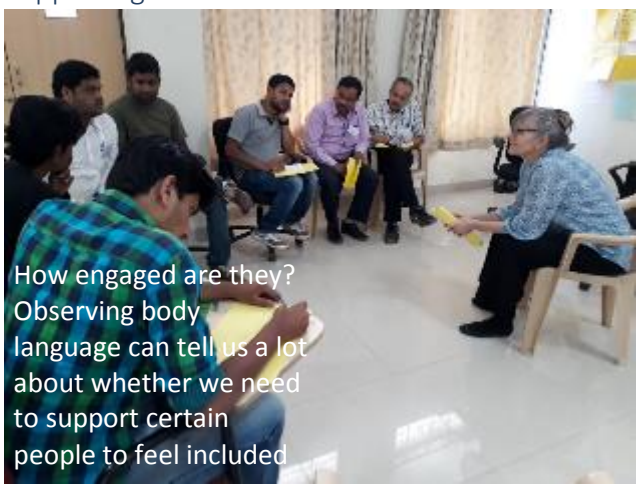
Your interpersonal skills are the most important cross-cutting skills you will develop as an effective facilitator. They concern how you (and how you help others to) interact most constructively with others. Here we look at four elements of effective interpersonal interactions: participating, supporting, listening and differing.

Participating


Participation in practice

Participation is a choice. Individuals within working groups can chose to participate in a discussion or chose not to. The extent to which they participate is not always linked to the quality or relevance of the information they are providing to the group! As a facilitator of a working group you will observe some individuals participating in group discussion more than others. Your role is to ensure that individuals don't dominate the discussion to ensure there is space for others to contribute. You can apply some of the interpersonal skills we discuss in the **Section 4.1** on facilitating open discussions to help you respond most effectively to these individuals. Encouraging quieter individuals to participate involves 'supporting' them, which is what we turn to next.

Supporting


How engaged are they? Observing body language can tell us a lot about whether we need to support certain people to feel included

Supporting concerns how to encourage individuals to provide more information or to participate within a group setting. You may have been in a situation yourself where you didn't feel as if you were able to participate in a group discussion. Perhaps you were in a meeting with your boss and you didn't want to speak because he or she was there, or you were with colleagues whom you thought knew more about a subject than you did, so you remained quiet. As a facilitator you need to look out for individuals who remain quiet in a group (perhaps they sit a little back from others, or sit with their arms folded or look nervous). To encourage them to contribute you might say something like, *"So we've heard a lot from person X about topic Y- does anyone else have something they'd like to*

contribute to this discussion?" You might have to be more direct and say, *"Ahmed, you have been sitting very quiet for a while. What do you think about this topic?"*

Sometimes quieter individuals might begin to speak but then be interrupted by others. You can help them to finish what they had to say by asking the more assertive individual(s) to give you some time to finish (referring to ground rules can help here!), or simple by saying, *"Eliana, you were starting to tell us what you thought about this topic and I wondered if you'd like to continue?"*

Where you might have a number of quieter individuals in a group, or where you think a particular individual might want to add content to the discussion, then you could change the format for providing information. Within some workshops you may have to encourage certain groups or individuals to participate at first, before they then feel confident to more actively engage in the workshop process (**Box 1**).

Box 1: Supporting landowners in tree kangaroo planning, Papua New Guinea

In a CPSG planning workshop for tree kangaroos in Papua New Guinea, on the afternoon of the first day, time was consciously built in to give a hunter from within the species natural range to share his experience and knowledge of the species (Nyhus et al 2003). Given this space to share his experience, he began by emptying a bag of plants that he had seen the tree kangaroo eating. This led to local landowners providing information on the similarities and differences in plant distributions across their lands, and acted as a 'watershed moment' after which landowners then began participate more actively in the workshop process. Being supported to share what one of their own knew about the species resulted in greater participation across the whole stakeholder group.

Listening

Listening is arguably the most important tools in the facilitator's toolbox! Done correctly, it can help groups do better thinking and also encourage people to feel included and be comfortable with the process and the outcome. Listening is different from 'hearing', the latter being a physiological process involving air movements, vibrations, your ears and the translation of the noise heard in your brain. Listening is a *psychological* process, involving *interpreting the meaning* of what someone is trying to tell you. Often their first statement is only the 'tip of the iceberg'; to really understand what they're saying they may need to give further explanation and you may need to ask for more information.

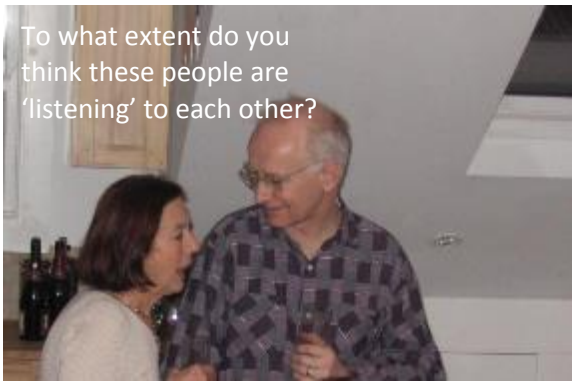
To be an effective listener you need to be aware of the following three elements (Bolton 1986):

- Attending (i.e. body language and eye contact)
- Following
- Reflecting

Let's look at each of these in turn…

Attending

Attending is about how you hold yourself and orientate yourself to the other person, as well as eye contact. Clearly, if you're facing away from someone it doesn't suggest that you are interested in listening to them, and so it doesn't encourage them to explain what they really mean! Take the two people in the photo to the left: to what extent would you say they were listening to each other? Whilst we may differ in our answer, I'm sure that we all have an opinion, and that is just coming from looking at how they are standing. The man has his head tilted towards the woman, though the rest of his body is oriented away. This might be because they are standing quite close together, but it may be because he would actually prefer to be somewhere else! Our bodies convey messages all the time to others around us as to how comfortable we're feeling, whether we're feeling defensive or aggressive etc.


To what extent do you think these people are 'listening' to each other?

When using your body language to good effect to help demonstrate you're listening to someone else:

1) Orientate your body towards the person
2) Try to avoid having any barriers (e.g. a desk) between you and them
3) Make eye contact with them. The extent to which you do this may vary between cultures, but rarely is no eye contact at all a sign that you're listening!

Following

Following is about how you follow what the other person is saying. Often the most effective thing you can do when you're trying to listen, is to be quiet. Silence allows the other person to prepare what they're going to say and gives you a chance to try to process what they're saying. When you do say something, ask clarifying questions (*"so are you saying….?"*), or ask for examples to help you understand the context in which the other person is thinking about when they make their statement. Asking *Why?* Can be a helpful way to dig below the first statement that comes out and

get to the other person's underlying reasoning and emotions. A typical interaction, when you're trying to listen, may go something like this:

Other person: *"I really don't agree with you on that point!"*

You: "*Could you explain what exactly you don't agree with?"*

Other person: *"In my experience people react in very different ways to what you're describing"*

You: *"Could you give me an example of the sort of reactions you're describing to help me understand?"* Etc.

Following is about trying to surface more information (or allowing the other person to give you the information) you need to correctly interpret what they're trying to say.

Reflecting

The final component of effective listening is reflecting. You act like a mirror, reflecting back to the person what you think they mean to check you've understood correctly. For example, let's say there are two people in a group with one person trying to make the point that, for a given species, disease can be ignored as a threat to the captive population. Another person feels strongly that it *is* a significant risk and so should be considered. You as the facilitator are trying to mediate between them and encourage each person to listen to the other. The conversation might go something like this:

Person 1: *"I can tell you that disease is not going to be an issue for this species"*

Person 2: *"You're talking rubbish! Disease is a real issue and we need to take it into account"*

You: *"There is clearly a difference of opinion here and one that you both seem to feel strongly about. Can I suggest we start by explaining why each of you feels the way they do."*

Person 1: *"In my experience disease just doesn't impact on this species"*

You: *"Could you explain a little more about your experience, or give an example to illustrate your point?"*

Person 1: *"Last year I was working in another zoo, but with the same species, and we did some testing for a range of diseases which we knew were already in related species held at the same place and managed by the same people. We found no evidence that disease had spread to the other population."*

You: *"OK, so if I can just check we're understanding you correctly, you're saying that, because the species might have been exposed to a range of diseases in the other zoo and your tests revealed that none were transmitted, that it is unlikely that disease will be an issue in the current situation?"*

In this way you're able to reflect back what you thought you understood to the other person and they can then either confirm this is the correct interpretation, or provide further information or examples to help you understand more accurately. Then switching attention to the other person to allow them to explain their views (and be understood) you can then help each party to see each other's viewpoint. Doing so might reveal greater similarity than they originally thought, or it might reveal that one person's perspective is based on more/less evidence than the others, making it easier for both parties to accept a shared opinion.

So, through maintaining an open body posture and using eye contact ('attending'), staying quiet to allow the person to explain their thoughts and only interrupting to ask for examples or clarifying questions ('following') and finally by reflecting back what you thought you heard, you give the maximum opportunity for the person to explain what they mean and be truly listened to. This approach to listening is particularly helpful when you have two or more people with strongly held and different points of view.


Facing each other, good eye contact, open posture. These guys were listening to one another!

Differing

A potentially difficult- yet hugely valuable- situation to facilitate is when people have conflicting views that need to be resolved. A temptation is to avoid the difference (e.g. by moving on to another subject), or by favouring one person's views over the other. This is a missed opportunity to surface additional information (**Box 2**)! When there is a difference of opinion this could be because:

a) two or more people have different experience or evidence to back up their alternative view;
b) their experiences are similar but they are interpreting the question or issue at hand differently; or
c) there is some more deep-seated reason for wanting to adopt a different perspective to the other person which may not be actually linked to the issue directly

Whatever the reason, trying to help the protagonists 'differ' constructively is likely to help their interpersonal relations and potentially surface new and valuable information and data on which to base decisions. Differing firstly involves recognising that there is a difference of opinion. The next step is to ensure that each person has the opportunity to explain what they mean and importantly *why they feel this way.* As a facilitator it often simply involves you applying your listening skills again

to ensure that each person is properly heard. If you are able to encourage them to explain why they feel the way they do, you can generate additional information that can either dispel the difference in views or at least provide further evidence to support one view over another. If the difference is because the individual's interpreted what they were supposed to be doing at that particular stage differently, then through this process you can resolve these misunderstandings; others in the group may also have misunderstood, they just hadn't voiced it yet!

Box 2: Differing to achieve deeper understanding: planning for the conservation of grizzly bears

In 1999, a workshop was held to determine how best to reverse a precipitous decline in the number of grizzly bears in the Canadian Rockies. During one of the working group sessions a sub-group argued that the group should focus on bear mortality, differing from the views of others. Rather than ignoring or avoiding the issue, the group then spent time trying to understand the importance of this focus. One of the participants shared data on sources of mortality, which concerned a number of anthropogenic causes, including increasing access through roads to bear habitat and increased availability of fire arms. Further discussions involving projections on human population increase resulted in the development of an equation to capture the likely increase in bear mortality in relation to human population growth. This equation was then incorporated into the population model for the species. In this instance, rather than avoiding the difference in views, the group asked further questions and moved from opinions through to data, providing evidence that could deepen participants' understanding of the species (Raufflet et al 2003).

3.0 Facilitating a collaborative conservation planning workshop

We've now introduced the CPSG Species Conservation Planning Workshop process, a number of generic thinking tools and some of the core interpersonal skills you will need as a facilitator to guide working groups through the process. We can now outline how all three would come together within a multi-stakeholder workshop setting and in particular introduce some additional thinking tools that are helpful at different stages within the process to encourage groups to diverge or converge in their decision-making (**Figure 9**).

In the following section we take each of the eight stages in the CPSG workshop process in turn, providing further details on the sorts of activities are undertaken at each one and outlining particular thinking tools that can help. This is not to say that these are the only tools you can use at each stage, neither that the tools cannot be used elsewhere in the process; they serve simply to provide an illustration of the sorts of tasks that are completed at the end of each stage and some of the tools that can be used to complete them. No two CPSG planning workshops are the same as different facilitators will have their own preferred stage order and thinking tools to navigate a way through. Furthermore, during the process changes might need to be made to better enable the individuals However, for someone starting out on this journey the following provides a sensible, generic framework to follow.

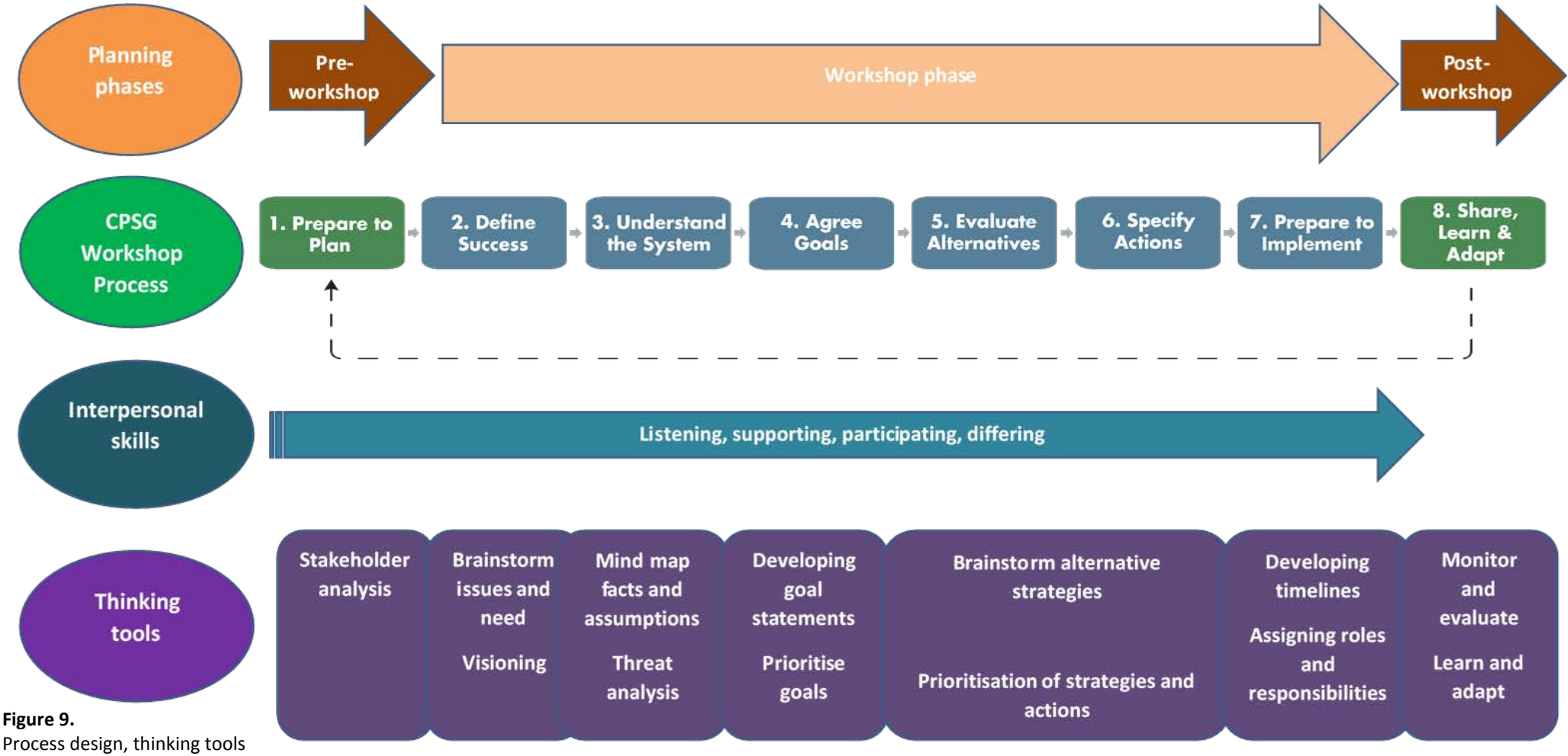


Figure 9.
Process design, thinking tools and interpersonal skills involved in facilitating a multi-stakeholder species conservation planning workshop

3.1 Facilitating CPSG's species conservation planning workshop process

There are eight stages to the CPSG Species Conservation Planning Workshop Process (CPSG Planning Process) as outlined in **Figure 9.** During the workshop stages (Stages 2-7) there are four phases of divergence (to generate information) and convergence (to seek agreement around the ideas to move to the next step in the process) (**Table 6**), each of which is supported by a growing number of thinking tools and interpersonal skills to achieve. Each phase often involves some form of plenary session where all stakeholders share in an open discussion the theme of that cycle, followed by smaller working group sessions, where groups generate (diverge) and analyse, critique and prioritise (converge) information and ideas.

Planning steps	Planning activities
1. Prepare to Plan	1.1 Agree on project scope and expected outputs 1.2 Establish the planning team(s) 1.3 Assemble key information 1.4 Conduct any required pre-planning analyses 1.5 Engage stakeholders 1.6 Design the planning process and decide tools 1.7 Address the need for an implementation framework
2. Define Success (Divergent/convergent phase I)	2.1 Agree on a definition of project success (often achieved through developing a vision statement) 2.2 Determine appropriate metrics to measure progress towards success
3. Understand the System (Divergent/convergent phase II)	3.1 Describe past, current and future system dynamics 3.2 Analyze threats and challenges to achieving success 3.3 Agree on current status (baselines) 3.4 Prioritize threats and challenges
4. Agree on Goals (Divergent/convergent phase III)	4.1 Agree where best to intervene in the system 4.2 Agree on goals for this intervention 4.3 Prioritize goals
5. Evaluate Alternatives (Divergent/convergent phase IV)	5.1 Identify alternative strategies for achieving goals 5.2 Evaluate alternative strategies 5.3 Decide which strategies to recommend
6. Specify Actions	6.1 Document actions required to accomplish selected strategies
7. Prepare to Implement	7.1 Agree on an implementation framework 7.2 Prepare to follow and record progress 7.3 Assess capacity needs of implementers
8. Share, Learn and Adapt	8.1 Assess and analyze results of implementation 8.2 Document, share (ideally with CPSG!), learn and adapt

Table 6. CPSG species conservation workshop planning process and associated activities.

Step 1: Preparing to plan

Planning step	Planning activities
1. Prepare to Plan	1.1 Agree on project scope, problem statement and expected outputs
	1.2 Establish the planning team(s)
	1.3 Assemble key information
	1.4 Conduct any required pre-planning analyses
	1.5 Engage stakeholders
	1.6 Design the planning process and decide tools
	1.7 Address the need for an implementation framework

Some definitions:

Project scope = *what is included within the project (e.g. number of species/ populations to be included by the project plan, their geographic range, taxonomic status etc.)*

Problem statement = *The reason why the workshop is happening now (e.g. because of realised extreme threats to the species, because the government wants to develop at action plan now etc.)*

Expected outputs = *what planners want to have produced by the end of the planning process (e.g. draft management recommendations, a full species action plan, a review of a species etc.)*

The pre-workshop planning phase can begin many weeks or months in advance of the workshop and occupy the majority of the time spent (**Appendix I**)! At this stage the priority is to clarify with workshop organisers what their objective(s) are for the workshop (scope and outputs) as this will inform how you design the workshop process and select thinking tools. Linked to this is the identification of stakeholders to be invited and the environment in which the workshop will be held.

1.1 Agree on project scope, problem statement and expected outputs

'Workshop organisers weren't clear what they wanted to achieve, which meant I wasn't clear and so able to prepare the process. If we had clarified the workshop objectives 'up front' I would have been able to do a better job of facilitating the workshop that followed'

Anne Baker (Executive Director Amphibian Ark)

For a facilitator clarity around project scope and expected outputs is vital if you are to design the process and identify the most appropriate thinking tools to get there. Sometimes workshop organisers may have an implicit understanding of what they want to achieve but may not have expressed it in a way that they can all agree on. As a facilitator you can help organisers reach this

level of clarity. Simply asking the group what they want to achieve might be enough to surface the opinions and then reach agreement. This can be done via email or through some other remote meeting.

If you are lucky enough to be able to physically meet workshop organisers then a useful technique is to draw up a 'meetings process' diagram on a flipchart or somewhere where the all workshop organisers can see (**Figure 10**). In this you ask the group to describe the current situation- why is it that they feel the need to develop a conservation plan for a given species or species group (START POINT). You then ask them to describe where they would like to be by the end of the workshop- not the conservation of the species, as this will come later, but what the expected output of the workshop would be (OBJECTIVE). With this agreed you can then start to think about the PROCESS you will suggest to get from the start point to achieving this objective.

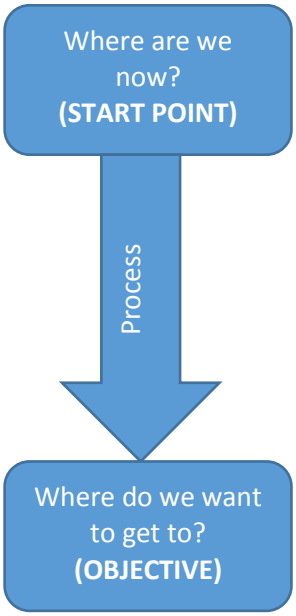


Figure 10. Meetings model

Clarifying the reason why a workshop is happening now (and not earlier), can help the facilitator to develop the workshop process and to establish how the workshop might begin. For example, if the reason is that an external review of an existing project has just been published which highlights a need to change project focus or direction, then this provides a helpful guide as to the starting point for the workshop, and what is communicated to participants, so appropriate expectations are set (Appendix III for example).

1.2 Establish the planning team(s)

Whilst the workshop organisers may have already been determined, there are additional team members or whole teams that can be developed to help prepare for the workshop to follow. Organisers may be themselves the leading experts on the species of concern. Questions that can help check if the right people have been involved include:

- *Does the group have the authority to both organise a workshop and ensure that the expected outputs are sanctioned at a high enough level that the planned project can be implemented?*
- *Does the group consist of sufficient expertise/ knowledge about the species and about the threats to the species to be able to assemble the best available information on which to base planned actions?*

If the answer is 'No' to one or more of these questions, then workshop organisers might need to consider who else should be involved. Common gaps in knowledge for workshop organisers include an understanding of the human systems that can impact on the viability of wildlife populations (**Box 3; Table 7**). Knowledge from conservation projects on related or similar species or species exposed to similar threats elsewhere can also help inform the process. People who hold this information may not form part of the workshop organising team but could form a separate team that works remotely to assemble key information.

Box 3: Lessons learnt from mountain gorilla workshop, Uganda: a need for more expertise

In 1997 CPSG was asked to facilitate a planning workshop for the mountain gorilla in Uganda. During pre-workshop discussions the organisers explained that their objective for the workshop was to identify priority management actions for the survival and recovery of the gorillas in wild habitat. Workshop planning began 10 months or so before the workshop with a focus on collating human demographic information and incorporating it into Population Viability Analysis models, recognising the impact of these human changes on the species.

A range of stakeholders and expertise was assembled for the workshop, including multiple range state representatives, gorilla biologists and ecologists and wildlife managers. However, what was lacking were the social scientists that ultimately had the most detailed understanding of the human dimension to the planning. During the working group sessions that followed participants involved in generating human demographic data were becoming increasingly frustrated and were unable to produce the information that was required to inform projections as to how local human change might impact on the gorilla population.

It became clear to workshop facilitators that there was a lack of expertise around indigenous knowledge, resource economics and demography to be able to confidently inform management recommendations. A lesson learnt from this workshop was the need to include such expertise both in the collation of pre-workshop information and in workshop participation, in cases where human demographics and behaviour, are an important factor in understanding the issues and identifying workable solutions.

Byers et al 2003

Human dimension	Knowledge relevant to species conservation planning
Human demographics	Population growth rates (fertility, mortality)
	Age structure
	Distribution and migration/emigration
Economics	Non-local markets and commodity prices
	Local markets
	Subsistence practices (e.g. hunting)
Industry	Extractive industries (timber, mining, fisheries
	Agriculture
Geography, sociology, cultural anthropology	Urbanization
	Transportation and access
	Religious and ethical beliefs
	Cultural practices
Political	Governance
	Land tenure/ownership
	War

Table 7. Some human systems that can impact viability of wildlife populations (modified from Miller and Lacy 2003)

1.3 Assemble key information

Once the planning team(s) has been created they can then get to work assembling the key information. It is helpful for there to be some pre-workshop briefing materials that captures what is known about the species and its threats, as this provides the core information which workshop participants can include in their discussions and decisions; this will help with the quality of the decisions they make. Furthermore, if the briefing materials are circulated to *all* participants in advance of the workshop, then this reduces potential power differentials between participants, with some feeling as if they lack the knowledge on the species that others may hold. This can help increase a sense of inclusivity and equality amongst participants and so increase their levels of acceptance in the process.

In general it is helpful for briefing materials to include information on:

- Species biology and ecology
- Distribution and population and data on how this has changed over time
- Threats to the species
- Human demographic, socio-cultural and economic data, in particular concerning those human communities living close to the species' habitat (see **Table 7**)

1.4 Conduct any required pre-planning analysis

Within CPSG briefing materials it is common to include a draft Population Viability Analysis (PVA), as this will set the scene for workshop discussions, illustrating the likely trajectory of the species of concern in the absence of any change to the system. Developing PVAs involves another set of skills not necessarily associated with facilitation, in which technical experts take what demographic, genetic, mortality and productivity information is known about a species and feeds the information into computer programs such as ***V****ortex* ((PHVA Workshop Process Reference Packet 2010, http://www.vortex10.org/Vortex10.aspx). ***V****ortex* is a stochastic population modelling program, which means it is able to account for variability or uncertainty within the natural system (in terms of annual productivity or mortality) and incorporate this into the population trajectories it produces. It can also account for inbreeding and random catastrophic events (such as flooding, drought, fires etc.) that may not happen regularly, but when they do can have serious impacts on a population.

As a facilitator, all you need to know at this point is that PVA is a useful tool to help collate what is known about a species and project likely future population change. These projections can then be developed and modified during the workshop as more information is provided by working group participants and the likely impact of different management actions on population change tested. Within the pre-workshop briefing materials, the PVA is likely to be a draft one, based on available written information on the species and so during the workshop you may be required to establish a working group which focuses exclusively on developing and refining the model as new information arises. Even in draft form though, it can provide a powerful message to workshop participants in advance of the workshop as to the likely future destiny of a species if no conservation action is taken!

1.5 Engage stakeholders

A stakeholder is anyone who has a 'stake in' or interest in the project being planned. This could involve individuals or groups who could be impacted by the project (such as fishers in any discussion over how to control natural resource use in a river), or those who can have a significant impact on

the outcome of the project. Clearly there could be overlap between these groups. Another way of looking at stakeholders is to consider who has influence- or power- over the project and who has interest in it? Again, there will be those who hold power and have an interest, as well as those that may score highly in only one category.

Involving the right stakeholders in the right way and at the right time has proven critical to many conservation projects, and many more are demonstrating that we should do so next time (Global Reintroduction Perspectives 2016). The timing of stakeholder engagement as well as the methods used to manage the relationship have influenced project outcomes.

Stakeholder engagement is not about trying to involve as many people as you can! Our concern should be, how we ensure that the most important stakeholders are involved at the highest level of planning in order to ensure that those with most interest and influence are able to be involved in the decision-making process. We can think of these stakeholders as being 'key' stakeholders; those with the highest influence on the project and highest interest in the project. One term for this group is 'promoters', and they can be sub-divided into 'primary' and 'secondary' stakeholders. Primary stakeholders are those that can have a direct impact on or be directly impacted by the project. For example, fishers may be primary stakeholders in any plan to control resource extraction from a lake harbouring a Critically Endangered species. Secondary stakeholders, in this case, might be communities in a neighbouring lake where fishers might move to if they can't fish in their local lake, i.e. those individuals or groups which are indirectly impacted by the project.


Who will have most impact on the project or be impacted by its implementation?

There are multiple processes that you, as a facilitator, can use to help workshop organisers identify which stakeholders to engage and to what extent. If you are in a position to do so, then encourage the group to be sure that their composition has sufficient diversity of individuals with experience and knowledge about the local, regional or national context to be able to identify potential stakeholders. This will help to increase the range of stakeholders that are identified as potential groups to bring together for the planning event.

A brainstorm might be all it takes with the right group to surface the majority of stakeholder groups. Going further to develop a mind map, in which you tease apart larger stakeholder groups (such as 'government') into more specific groups (e.g. department of finance, department of tourism etc.) will help drill down to the discrete groups that you will need to select between.

An alternative to asking workshop organisers to call out their ideas of possible stakeholder groups would be to give them a period of time to write down as many ideas as they can on separate pieces of paper. You can then stick these on a wall and continue the brainstorm to try to add to the list and break the groups down further into more discrete stakeholder entities.

Once you have your list, you then need to think about how workshop organisers will sort and prioritise to select the primary and secondary stakeholder groups. A simple and visual way to suggest to workshop organisers is to separate stakeholders according to their impact on the project or the degree of impact the project will have on them, placing each stakeholder entity into one of the nine boxes (**Figure 11**), which you could draw up on a flipchart.

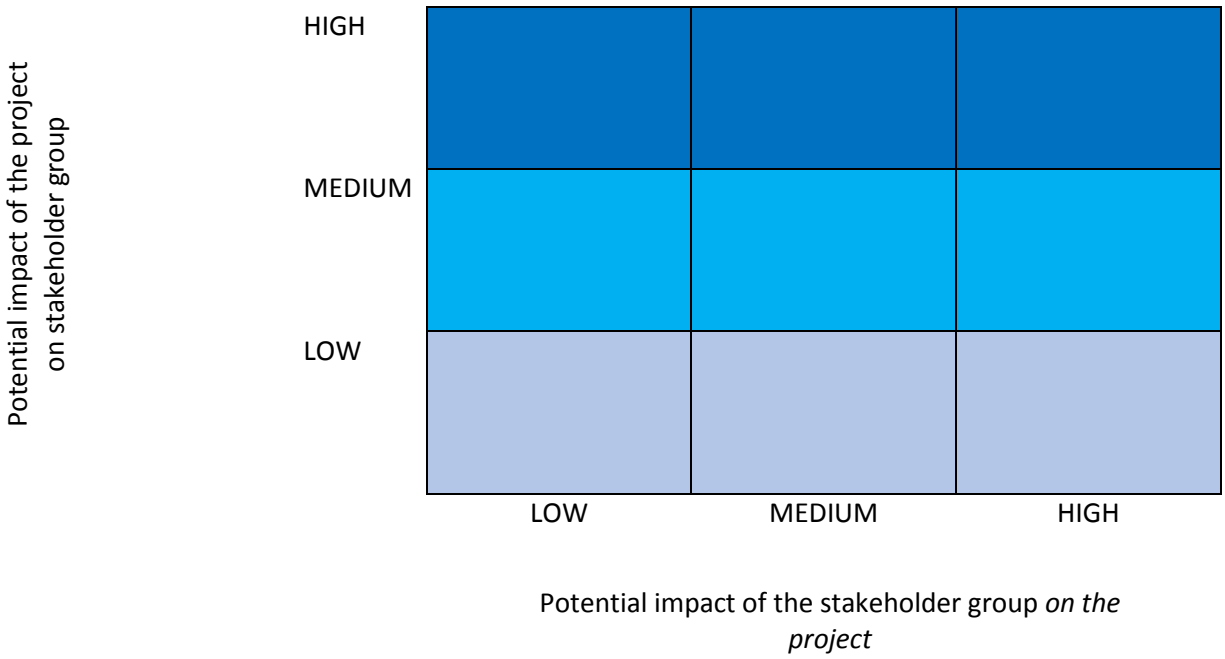


Figure 11. A stakeholder matrix to separate out priority groups (from IUCN 2008)

There are numerous other stakeholder analysis techniques out there to choose from, including those outlined in **Section 4.4**. The point is to select or develop the process that helps the group you're facilitating to achieve their objective and do so in a way that they can all agree upon, in this case identifying who should be at the workshop.

1.6 Design the planning process and decide tools

Equipped with clarity over the scope and expected outputs of the planning process, knowledge of who will be coming to the planning workshop itself and information about the species (and also where key gaps might exist), the facilitator can then begin to plan out the process and select relevant thinking tools. Here we assume the facilitator is going to follow the CPSG planning process, with steps 2-7 occurring within the multi-stakeholder planning workshop itself, each step being associated with particular tools to support group thinking and decision-making (**Table 8**).

Planning steps	Planning activities	Thinking tool examples
2. Define Success (Divergent/convergent phase I)	Agree on a definition of project success (e.g. a **Vision**)	Brainstorm issues and needs Developing and operationalising the vision
	Determine appropriate metrics to measure progress towards success	
3. Understand the System (Divergent/convergent phase II)	Describe past, current and future system dynamics	Population Viability Analysis Threat analysis/ problem-solving tools, such as: -five whys -Six Honest Men -Fishbone analysis -Forcefield analysis -Matrices -Causal flow diagrams Clarifying criteria of choice Priority-setting tools -'Sticky dots'
	Analyze threats and challenges to achieving success	
	Agree on current status (baselines)	
	Prioritize threats and challenges	
4. Agree on Goals (Divergent/convergent phase III)	Agree where best to intervene in the system	Goal setting
	Agree on goals for this intervention	
	Prioritize goals	
5. Evaluate Alternatives (Divergent/convergent phase IV)	Identify alternative strategies for achieving goals	Prioritisation tools -Pros, cons, fixes -Paired ranking Plan protection
	Evaluate alternative strategies	
	Decide which strategies to recommend	
6. Specify Actions	Document actions required to accomplish selected strategies	Setting SMART actions
7. Prepare to Implement	Agree on an implementation framework	Project governance structure development
	Prepare to follow and record progress	
	Assess capacity needs of implementers	

Table 8. Example thinking tools to help workshop participants work through each key planning activities

We will look in more detail at the thinking tools outlined in **Table 8** as we move through steps 2-7 in the planning process.

1.6.1 Workshop timetables

A typical CPSG workshop will last 3-4 days, broken down into morning and afternoon sessions (**Table 9**) and aligning broadly with the phases of divergence and convergence outlined in **Table 8**.

Activity	**Facilitator's role**
Day 1: Morning Session (9:00-12:00)	
This cycle often begins with initial opening ceremonies and presentations from workshop organizers, including a welcome from a relevant dignitary or key decision-maker. This is followed by presentations summarizing key information on the species including any details on progress made from preceding plans.	The facilitator will need to focus on keeping people to time (without causing offence!) and managing open discussions. The lead facilitator is also likely to present workshop process at this stage to ensure everyone is clear on *how* the workshop is designed to enable groups to get through the *content* and reach the desired workshop goal.
Day 1: Afternoon Session (13:00-17:00)	
Further presentations may continue from the morning session and as soon as possible working groups formed and begin work 'Defining Success'.	Define working groups, run through group roles and ground rules. Guide working groups through initial issue identification and priority themes to be included within a vision statement. Select a sub-group of participants to work on finalizing a draft vision statement (this group might work in the evenings to produce the vision statement, reporting back to the whole group to ensure their feedback is included in the final draft statement and clarification of some of the metrics involved).
Day 2: Morning Session (9:00-12:00)	
Review of Day 1, update from vision development sub-group. Focus of the day is on 'Understanding the System', identifying key threats and potential intervention points. At least one plenary feedback session during the day for reports from smaller working groups.	If PVA was conducted then the results of the initial models may be presented to help set the scene for the threat analysis stage to follow today. Managing plenary sessions where results of working groups shared.
Day 2: Afternoon Session (13:00-17:00)	

Threat analysis continues with working groups moving on to identification of potential intervention points (these will become potential goal statements)	Guide groups through goal statement identification which will come from working groups agreeing which threats should be priorities for intervention.
Day 3: Morning Session (9:00-12:00)	
'Agreeing on Goals' completed and 'Evaluate Alternatives' stage introduced to identify potential strategies/ actions that could be undertaken to achieve the goals.	Prioritization of goal statements (if not conducted end of Day 2) and divergent thinking around potential strategies/ actions to be undertaken to achieve the goals.
Day 3: Afternoon Session (13:00-17:00)	
'Specify Actions' stage undertaken with working groups proposing who will do what by when.	Prioritization of strategies completed and detail around actions encouraged. As with all working groups sessions they may be followed by plenary sessions which facilitators will need to manage.
Day 4: Morning Session (9:00-12:00)	
Timelines and accountabilities are set to 'Prepare to Implement' the plan. There may be a closing ceremony and clarification of next steps in terms of completion of the workshop report and communication back to stakeholders. Closing ceremony and celebration over success of the workshop.	Guide groups through identification of timelines and accountabilities as well as ensure all working group reports in and steps in place to enable final workshop report to be completed and circulated to stakeholders and key decision-makers. Support also in developing governance structure for the project to follow. Circulation and collation of post-workshop evaluation surveys.
Day 4: Afternoon Session (13:00-17:00)	
Participant departures and discussions with workshop organizers to ensure clarity over how the workshop report will be completed, by whom and sent to whom.	Post-workshop discussions with workshop organizers over next steps. Summary of workshop feedback to inform future events.

Table 9. Outline of a generic CPSG conservation planning workshop timetable

In order that the workshop is as productive as possible there are a number of activities that a facilitator should oversee, which broadly fall under the heading of 'laying workshop foundations'.

1.6.1 Laying workshop foundations: Timing, briefing and logistics


Build workshop timings and location around the stakeholders to be invited

If you know who needs to be at the workshop then you can start thinking about workshop timing and location. If small-scale rice cultivators are a key stakeholder to have at the workshop then timing the workshop to fall during the harvest is not a good idea! Likewise if you need fishers to be there, or particular religious groups then this might impact on when they will be available. Build the workshop around the key stakeholders rather than the stakeholders around the workshop.

The audience will also influence the location of the workshop. Whilst it might be easier for some groups to host the event in a city location (such as a university or government building), this might alienate certain stakeholder groups- if they won't feel comfortable then they may not come and worst still they may come but then not feel confident enough to speak up. You'll then sacrifice both the quality of the thinking and the level of acceptance over any decisions made.

Locating the workshop away from people's work can be helpful- in this way participants aren't tempted to leave for meetings and then return late. Likewise, basing it somewhere without internet connection may help all participants to be fully present in the workshop rather than sneakily checking emails during plenary discussions or group work! This will though have a knock-on effect on accommodation for participants and how you'll ensure you can get them to the workshop each day. Finally, consider whether or not you'll need to have direct translation for certain stakeholders. Having to build in these costs or those of transport and full-board lodgings for all participants will soon send the budget sky high! So, a balance needs to be made between the ideal location and timing and what is possible.

As the start date of the workshop comes closer you will need to gather your equipment (**Table 10**).

Workshop materials	Ideal quantity for 3-4 day workshop
• Flipcharts, flipchart stands	• At least two flipchart packs per working group and a flipchart stand per group (plus one for plenary discussions) • Sticky labels can do
• Name tags	• A pack per group
• Coloured marker pens	• Two rolls per group and one for plenary
• Sticky tape	(to stick pages onto a wall so groups can see their work as it develops)
• large (coloured) cards, sticky dots	• Expensive but helpful for groups to write out brainstorms rather than call out (good for then moving ideas around on a wall). Sticky dots helpful for groups to priorities ideas during convergent thinking
• LCD projector, projection screen, laser pointer, block daylight in room	• At least one projector for plenary • Helpful to be able to print things 'last minute'
• Printer / Photocopy access, laptops….	• For large groups to help people to be heard during plenary sessions. Have a spare one!
• Microphone(s)	• If helpful for groups to help visualize the landscape and locations of species/ facilities
• Large print outs of maps (topographical, ecological, range …)	

Table 10. Equipment to prepare for in advance of the workshop

Anything that helps participants connect with each other as quickly as possible is going to help. Think about flipcharts and stands and pens- you'll need a set for each working group with ideally a spare one to use for recording plenary sessions. Make sure you have a projector to presentations- and all the necessary connectors, extension leads and adapters. It's no good turning up on the day and saying *"Oh, my laptop isn't connecting to the projector…who can help?"* Get this sorted in advance!

Arriving a couple of days before the workshop is a good habit to get into so you can rush out to the shops if needs be!

Often you'll want each working group to record their own group report, and so ensuring there are sufficient laptops and necessary electricity outlets to enable this to happen is important- you can never have enough electrical extension leads! For large workshops at least two microphones (tested in advance!) is helpful as it allows for the lead facilitator to field questions during open discussions as well as for participants to respond.

Other equipment such as topographical maps showing species distributions, print-outs for each group of existing plans/ papers may also help participants do their best work. Deciding on the equipment list with others is wise as there are often things that you might forget which they will remember. The amount of equipment you pull together will be determined by the number of working groups you expect to have at the workshop, and this is what we turn to next.

1.6.3 Working group size, composition and roles

Working groups are the 'units' within which stakeholders tend to work together (with the guidance of a facilitator) to achieve a particular divergent or convergent task. Ideally they are large enough to encourage creativity (group members bring enough variety of experience and views to challenge each other to think more deeply about a topic), but not so large that sub-groups break off or individuals feel left out, unable to have their say. Groups sizes of between 6-10 people work well, though in some instances groups might be larger and these can still work, particularly with a good facilitator! Group size is going to influence the number of additional facilitators you are going to need within a workshop, as does the complexity of the issue, the level of group maturity (i.e. their ability to work effectively together without additional guidance), time available and the different personality types in the workshop.

Mann (2007; pp96-98) provides a way of factoring in all these points to determine the number of facilitators you might need, using a points system. In many species conservation planning processes the issues are often complex, groups are rarely experienced at working together and time is tight. The main factor that we concern ourselves here with then is the number of participants you are likely to have at the workshop, and so how many working groups will be created. It is assumed that if you have fifty participants you may well need at least five facilitators to ensure each working group has sufficient guidance. The number of working groups you create will have a knock-on effect on the amount of time groups need to spend in plenary discussions, where all working groups report back

and discuss findings. CPSG has found that workshops with more than about five working groups can result in these plenary sessions becoming too lengthy- 3-4 working groups are therefore ideal, if you can achieve this.

You might be able to provide some introductory training to locally-sourced 'trainee' facilitators in the days before a workshop, if the workshop organisers don't have the resources to bring in experienced facilitators who might not be found locally. Never forget though that as a facilitator you must remain neutral; if local facilitators are also likely to have a strong view on the project and have a vested interest in the outcome of the workshop, then they are unlikely to be able to be effective facilitators! An alternative to assigning additional facilitators when you do need others to help, is to instead assign a Discussion Leader role to one of the group members (**Appendix II**). This role is part-way to being a working group facilitator but is not assuming they play a full facilitation role. Instead their focus is on ensuring that the group keeps to the task and that all group members are given the chance to contribute. In this way the facilitator is free to move between multiple groups and so maintain an overview of progress through the process.

If local facilitators are going to be impacted by or have an impact on the outcome of a workshop, then they are probably not neutral and therefore not ideal facilitators!

Group composition is also something to consider. Sometimes it is advisable to keep stakeholder groups together (e.g. a working group of fishers or landowners or wildlife department personnel). This might be advisable at the start of a workshop when the objective of a task might be to reveal the concerns of each stakeholder group, or an initial discussion on issues. In other situations the dynamic might be better achieved by mixing stakeholder groups. The advantage of this is that you can encourage different viewpoints to be discussed and agreement sought. A disadvantage might be that certain stakeholders might feel intimidated by the presence of a representative from another group and so not say what they're really thinking. This is where emphasising the ground rules and encouraging healthy interpersonal skills can be helpful!

Be aware of power differentials in a working group. If there are senior staff and subordinate staff from the same organisation in the same group, the latter may find it difficult disagreeing openly, even if they feel strongly. Having this sort of discussion during the pre-planning phase with workshop organisers can be helpful as they may have prior knowledge of the individuals involved and how best to group them to make them feel most comfortable to say what they think. However

you do it, spending time thinking about group composition and group size in advance of the workshop can help ensure that it ends up being most productive.

In addition to working on the content of the discussion it is advisable to allocate certain roles to certain working group members (**Appendix II**). Someone needs to report back during the plenary discussions and so identifying this person at the start of the working group task can help this individual to pay attention and potentially take their own notes so they can succinctly convey the main points of the discussion during the plenary to follow. Another important role is that of the note taker. Their job is to capture individual exchanges and working group decisions on a computer, and so record additional details to the ones captured on the flipchart and provide these details for the workshop report. Whilst this can be a challenge for a working group participant to play this role and contribute to the discussion, is has proved crucial in CPSGs experience in ensuring accurate information is included in the final workshop report in a timely manner.

Once workshop objectives, briefing books and participants have been identified and secured, the workshop venue, materials and logistics have been acquired and working groups determined, you as the facilitator of the process are ready to think about delivering the workshop itself, beginning with the opening ceremony.

1.6.4 Overcoming language barriers

With any multi-stakeholder workshop there will inevitably be some form of language barrier to overcome. There could be national, regional or even tribal language differences which can make it difficult for individuals to understand each other (and for the facilitator to facilitate!). There are also likely to be organisational or professional language barriers to contend with, which may be more subtle to recognise. 'Scientific jargon' would be a classic example of the sort of language barrier that might exist, with perhaps geneticists using terminology not easily accessible to farmers, national parks people or other government representatives. As we have mentioned earlier in this handbook, different planning cycles have been promoted by different organisations, some using terms such as targets, which they might mean to be the focal species to be conserved, whilst others might interpret targets as being what you are aiming to achieve. Such differences can lead to misunderstanding and, in extreme cases, conflict.

As the facilitator you can help with overcoming such barriers by first recognising that they might well exist! You may encourage workshop organisers to include some form of direct translation (to overcome broader language barriers), though this will increase the time spent at each stage in the

workshop process and so would need to be factored into your planning. If translators don't understand the terminology used then this can cause further confusion, as they try to translate terms incorrectly. Try to find translators that have worked in the conservation sector before, or at least have an interest in it, so they are more likely to understand the true meaning of particular words and phrases. Providing them with the briefing materials in advance of the workshop can help them to better understand the context.

Secondly, during working group tasks it's helpful to check regularly with group members that they understand terminology used by others. Thirdly, and perhaps most importantly overcoming the barriers comes down to your attitude (and that of group members). As Westley and Byers (2003; p76) put it, *"A sincere desire to communicate and collaborate, along with a generous, energetic, and capable translator, makes bridging the language gap possible."*

1.7 Address the need for an implementation framework

It may seem counter-intuitive to consider how the project will be implemented before the project has been planned! Whilst it's not possible at this stage to know *what* actions will be undertaken, it is worthwhile considering *which* are likely to be the main organisations that will oversee the project and take a lead in decision-making. There is likely to be some government oversight, particularly with national or regional species action plans. There may need to be multiple institutions involved and knowing what these are likely to be before the workshop helps to ensure that they are involved in the planning process in a way that ensures they are fully supportive of the project. We'll look further at implementation frameworks in the section on Preparing to Implement.

With the above activities completed, the facilitator should be better-prepared for the workshop to follow.

Step 2: Define Success

Planning steps	Planning activities	Thinking tools
2. Define Success (Divergent/convergent phase I)	2.1 Agree on a definition of project success (e.g. a **Vision**)	Positions and needs Developing and operationalising the vision
	2.2 Determine appropriate metrics to measure progress towards success	

Some definitions:

Vision = *a desired future state; a way of capturing what stakeholders most care about and would like to see realised in the future (10, 20, 50, 100 years from now). The vision statement will ideally be long enough to capture these key points, and short enough to remember!*

Operationalising the vision = *details providing more specifics as to what the vision will 'look like' in reality (e.g. in terms of the numbers of populations of a target species, their health or level of reduced risk of extinction, quality of life measure for people living alongside the species etc.)*

Positions and needs = *Positions are statements made which indicate what one stakeholder group or individual wants another stakeholder group or individual to do. Needs identify the actual underlying requirements of a given stakeholder group or individual, to achieve what they most care about.*

2.1 Agree on a definition of project success

An important element to address early in the planning process is the participants' definition of success of a given conservation plan and its associated action steps. What does an ideal future look like for the species or populations under consideration?

2.1.1 Opening ceremony

It is important that workshop organisers (and in particular the relevant country government representatives) feels ownership over the process and the outcome of a planning workshop. In many countries it is expected that an event where there may be multiple stakeholders and multiple countries represented will begin with some form of welcome, which may include speeches from particular dignitaries or a culturally-relevant ceremony. Whilst this does reduce time available for planning, it can help to build levels of acceptance over the outcome of the workshop. As a facilitator of this process your main role is to try to keep people to time. This needs to be done sensitively but

be willing to suggest to workshop organisers that they try to bring certain presentations to an end if it looks like they may overrun. In some situations it might be appropriate to hold up time cards to show to presenters that they have 3 minutes, 2 minutes, 1 minute etc. left of their time slot before they need to conclude.

During the opening event should include presentations on the species itself, summarising the most important biological, ecological and population status factors to help workshop participants focus on the problem. A presentation on the results of the draft Population Viability Analysis (PVA) should be included if available, partly to highlight the likely future state of the species and partly to develop understanding within all stakeholders of some of the biological and genetic factors that can influence a species survival; there are likely to be workshop participants who have not received any formal biological training. There may also be a need to have presentations on what is known about the human demography or anthropology of the area around the species' habitat if this information is important in understanding the context.

Finally, there should be a presentation by the facilitator themselves on the workshop process, detailing how working groups will be formed and how they will function, the phases that groups will go through during the workshop and what the ultimate desired outcome is. There may be a need to facilitate some form of open discussion during this initial stage in the workshop, which can take some skill to manage and keep on track and on time!

2.1.2 Developing a vision of the future

The end point for this phase is to have developed agreed draft vision statements. As this may be the first time the working groups have formed it is worth reminding them of the ground rules or encouraging them to develop their own ground rules, as well as identifying the roles that different working group members will play (**Appendix II**). A common starting point for this phase is to ask individual stakeholder groups to begin to identify their issues and needs; what factors are they concerned about which relates to the species? This might be a straightforward process involving stakeholders working in small groups to discuss and capture what their concerns are (**Box 4**). Brainstorming, winnowing and clustering, or mind-mapping are alternative ways to capture this information when a large number of issues are likely to be generated.

Box 4. Issues and needs generation exercise: tree kangaroo conservation planning workshop Papua New Guinea

In 1998 CPSG facilitated a species conservation planning workshop for tree kangaroos Dendrolagus *spp. After the opening ceremony and presentations on the first day, workshop participants were allowed to self-select the working groups they were in, resulting in stakeholder-based groups forming around: captive managers, landowners and biological and social scientists. Working groups were asked to generate a list of their issues and needs relating to the tree kangaroos. Working groups were able to discuss and record their ideas in the locally-understood language (Pidgin). This collective list was then translated into English, with some example issue statements provided below:*

- *Many habitats of the tree kangaroo are vanishing (due to mining, logging, oil palm)*
- *People go against the Wildlife Management Area regulations for the tree kangaroo and other animals; they want to hunt as much as possible; landowners don't have enforcement power*
- *There is not enough information and experience for experts to teach locals and those responsible for looking after tree kangaroos in the wild and in zoos*
- *New technology is being used to hunt (e.g. guns)*
- *There is little time to think about conservation because of other social needs (health, transportation, education)*
- *Landowners have information about the tree kangaroo (e.g. what they eat, where they live), but haven't been given the opportunity to share what they know*

After Bonaccorso et al 1999

Issue generation can help at this early stage in the workshop to build understanding between stakeholders, and so the process can be as important as the product!

In situations where different stakeholder groups are coming together for the first time, where there may be a history of conflict between groups or where, for whatever reason, groups are suspicious of each other, it may be better to organise for individual stakeholder working groups rather than mixing them up. This may also be the case where there may be a hierarchy between groups (and so some may not speak out or challenge other groups out of fear or respect). It is often worth discussing group composition with workshop organisers prior to the visioning process so you can plan for such situations. The key is to create working groups in which individuals feel most comfortable in discussing the present and desire future they would most like to imagine.

The next stage is to encourage the group to imagine what a future, desired state might look like. This should be an opportunity to think creatively and not be restricted by the realities of life or of particular stakeholder group's perceived limits of control. You might have to remind participants that we're focusing on the change we want to see happen not *how* we get there- that comes later during the goal-setting stage.

Again, you might find groups find it easier to draw out the desired future rather than to write it out in word; encourage the group to imagine without boundaries. Alternatively, you might suggest individuals within the group to write out key words which relate to their desired future state, which can be later edited into a vision statement. Writing key words on separate pieces of paper (e.g. Post-Its) can be helpful as, once displayed, they can be moved around to look for similarities and differences between phrases and begin the process of crafting a draft vision statement.

Decide the most effective way to encourage the group to imagine without boundaries

The visioning process CPSG uses involves the following steps:

1) Ask working group participants to spend 5 mins on their own vision
2) Now ask them to share and synthesise their vision with the person next to them
3) Then ask them to get together as a group of four and repeat the process
4) Continue until you end up with 2-6 consolidated statements
5) Read out the statements, help the group to identify common themes
6) Hand over to a 'vision synthesising group' to spend time developing a single statement which can then be discussed in plenary

There is no 'ideal' vision statement (**Box 5**). In fact the ideal is the one which best inspires stakeholders to act effectively and achieved the change they want to! However, there are some principles that are helpful when considering what to include within a vision related to species conservation (IUCN/ SSC 2008):

- **Representation-** does the vision recognise the need for genetic and ecological representation across the species natural range?
- **Replication-** does the vision account for the potential loss of individual populations due to unforeseen catastrophes, so the species isn't lost altogether
- **Ecological functionality-** does the vision recognise the interplay between the target species and others within the community (e.g. predators, prey, parasites etc.)?

- **Human socio-economic and cultural needs and desires-** rarely do species exist in isolation from human activity. Does the vision recognise this and consider how the species will persist alongside evolving human needs and wants?

Box 5: Alternative vision statements

A thorough vision statement, representing biological and human needs:

'Over the next century, the ecological recovery of the North American bison will occur when multiple large herds move freely across extensive landscapes within all major habitats of their historic range, interacting in ecologically significant ways with the fullest possible set of other native species, and inspiring, sustaining and connecting human cultures'

A succinct vision statement that everyone can remember!

'Leopards and all wildlife prosper in natural habitats across the Caucasus eco-region in harmony with people'

A vision including how the project will be perceived externally:

'It is 2030. The Bellinger River Snapping Turtle project is a model conservation program for supporting critically endangered native fauna, facilitated by multi-agency collaboration and community engagement. This program has ultimately led to river health restoration and a sustainable turtle population that is disease free.'

2.2 Determine appropriate metrics to measure progress towards success

By working through issues, identifying needs and agreeing the vision, stakeholders can begin to build understanding and trust, and an acceptance of what they are trying to do collectively. A downside is that vision statements can often be too broad to be helpful in fully describing the scale of change required to create the ideal future.

'Operationalising' the vision can be helpful in some workshops where groups want to be clearer about what the 'new world' they are trying to create will look like. The process will often result in generating numerical information about the ideal future state of the species (numbers of populations and individuals within each population; **Box 6**) as well as information about improved situations for people (e.g. improved livelihoods, food security etc.), or other species.

Box 6: Developing and operationalising the vision for the tamaraw, Philippines

In December 2018 CPSG facilitated a species conservation planning workshop for the tamaraw Bubalus mindorensis, *a Critically Endangered forest buffalo from the island of Mindoro, Philippines. On the first day of the workshop participants were asked to write down their ideas as to what the ideal future would look like for the tamaraw, 25+ years from now. They then discussed in pairs, fours, sixes and finally groups of eight, where they consolidated their ideas into draft vision statements.*

Participants were then asked to volunteer to work within a smaller working group in the evenings to take the draft statements, identify common elements, and produce a final, single draft vision statement which could be taken forward in the final plan. Effort was taken to ensure that this smaller group included representatives of all the main stakeholder groups, including the indigenous people who lived alongside the tamaraw in the remaining upland forest.

Over the next three nights this smaller working group of approximately eight:

- *Identified the common elements of the vision statements generated within the workshop*
- *Added additional ideas based on further discussions held on day 1 and 2*
- *Drafted a single vision statement which they shared with workshop participants as it was being developed to provide opportunities for feedback during the daylight sessions*

The final vision statement produced was as follows:

"By 2050, the Tamaraw, a source of national pride and a flagship for Mindoro's natural and cultural heritage, thrive in well-managed habitats and populations that co-exist with Indigenous Peoples across Mindoro."

The statement was checked for translation into Tagalog (a common Philippine language). The working group then asked themselves what was meant by terms such as 'thrive' and 'well-managed habitats and populations' to operationalise the vision. With input from the PVA working group participants were able to agree on a minimum of six populations managed in areas ranging from 2000-15,000 hectares in size, and in numbers of between 50-600 individuals in each population to equate to their sense of what was required to ensure the species was thriving. In order to finalise this process, further work needed to be done to clarify what being 'a source of national pride' would look like in the future, as well as how they might know if the species did 'co-exist with indigenous peoples across Mindoro'. This work would continue after the workshop was completed but the vison statement was finalized and presented on the last day to key government decision-makers who attended the closing ceremony of the workshop.

Step 3: Understand the System

Planning steps	Planning activities	Thinking tools
3. Understand the System (Divergent/convergent phase II)	3.1 Describe past, current and future system dynamics	Population Viability Analysis
	3.2 Analyze threats and challenges to achieving success	Threat analysis/ problem-solving tools such as: -mind maps -five whys -Six Honest Men -Fishbone analysis -Force field analysis -Matrices -Causal flow diagrams
	3.3 Agree on current status (baselines)	Population Viability Analysis
	3.4 Prioritize threats and challenges	Clarifying criteria of choice Priority-setting tools -'Sticky dots'

Some definitions:

System = *the biological, ecological and human system in which the species lives.*

This stage can be a challenge for group participants, particularly those with learning styles that are more orientated towards action. People can become frustrated and enter the 'Groan Zone' as lots of information is generated, without much analysis, at least not to begin with. It might help groups to mix them up during the divergent part of this phase in the workshop (when information is being generated), as this can enable individuals to learn from each other and reach agreement around some of the core information and issues to be focused upon later when ideas begin to converge.

3.1 Describe past, current and future system dynamics

Once working groups know what they want to achieve (their vision) then they can begin to deepen their understanding of the ecological and human system in which the species lives; what is the underlying problem that is driving the population(s) down and preventing stakeholders from achieving their vision currently?

Within a CPSG workshop this stage is going to draw from the briefing materials, which contain much of what is known about the species, though not everything. Working groups are going to spend time providing additional information and trying to determine how factors link to explain the current status of the species. If a PVA is included then much of this information will be incorporated into the development of the model for the species; there would be a working group specifically looking at

how to develop this model to share with other groups. PVA is also used, when available, to achieve agreement over the current status of the species and its likely future trajectory (**3.3 Agree on current status (baselines)**), within this planning step. When PVA is not involved, working groups can still describe the current status of the species and also the more qualitative activities of analysing and prioritising threats. During this step working group participants are likely to provide information of varying quality, based on what they know, assume or are guessing about the system in which the species lives, its current status, and what might be driving the population(s) down.

3.1.1 Separating fact from assumption

Good thinking needs to be based on good information. Whilst there is always uncertainty within any species conservation planning process and gaps in our knowledge of a species it is helpful for groups to be able to separate out what they know from what they *think* they know, and from this what is complete, unfounded guesswork!

Wherever groups need to generate information, brainstorming or mind-mapping are helpful ways of getting the information out. A helpful role to play as the facilitator of the process when generating information about the species and its threats is as a 'devil's advocate'; someone who challenges the group and questions the information. Group members may be reluctant to challenge each other early on in a workshop process, so when someone says, *"there are hundreds of adults up in mountain range X",* groups might be tempted to let this statement stand as if it is a fact. In reality without evidence *behind* the statement, it is more of an assumption, or perhaps even a complete guess! As the facilitator you can take up this role and ask what evidence we have to support the statement. This is helped further by writing the information up on a flipchart, as then the group and facilitator are physically orientated towards and challenging the information, not the person who gave the information.

Where information might be irrelevant then there may be no need to challenge it, but where it is important in helping to understand the current state, biology or ecology of the species, or where it relates to threats around the species, it is helpful to encourage groups to question, *what evidence do we have?* This will help in later stages of the workshop where the information is being used to inform decisions around alternative strategies and actions.

3.2 Analyze threats and challenges to achieving success

There is a wide variety of problem-solving tools that you can use to analyze threats (**Section 4.5**); i.e. to use what is known (or hypothesised!) to better understand why a species might be in decline.

Which a facilitator selects will be dependent on the complexity of the problem working groups are trying to solve, the time available to this stage in the process and the amount of detail the group wants to generate. Within CPSG workshops stakeholders are often diverse and time is limited. As such, relatively simple problem-solving tools are often employed, such as mind- mapping.

3.2.1 Mind mapping threats

The process often begins with placing a piece of card with the 'Declining population of species X', being placed in the middle of a wall or large pin board. Participants are then asked to suggest threats that are known to or are presumed to drive the population into decline. These ideas are then written on separate pieces of card and added to the diagram, with arrows being placed (or bits of string being placed!) between the threat and its impact. Additional ideas are generated as to other threats to the species and are added to the diagram, each time being questioned as to which other factor already on the board it is linked to. Participants are encouraged to consider what might be driving the threat, and to keep 'digging back' until all of the threats and their causes are captured on the board. Participants might want some time to re-organise the threats so they're connected in a way that makes sense to them. Ultimately a simplified model of the system which is driving the species into decline is created (**Figure 12**). Where possible participants are also encouraged to add data to provide evidence of each threat and its scale of impact on the species. As well as considering biological and direct human-induced threats to the species, participants are also challenged to think about the existing barriers to conservation of the species, with a focus on inter-institutional issues, resources, data gaps etc., and to build these into the diagram.

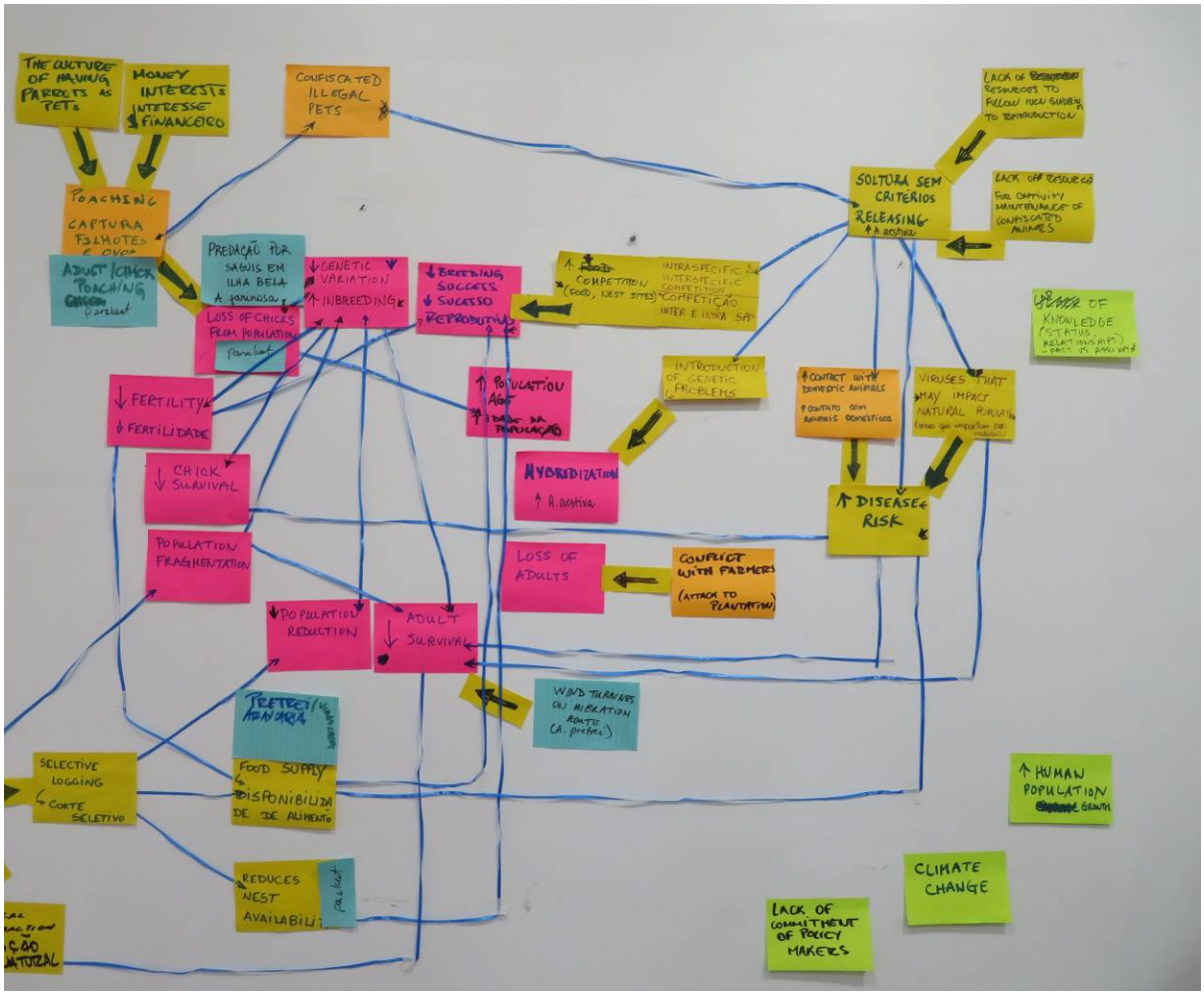


Figure 12. A mind map in practice illustrating socio-organisational as well as biological threats

This process can be done in a plenary session or in smaller working groups. By doing it in plenary all participants get to see and input into the development of the model as well as hearing the discussion that ensues, to help build understanding across all stakeholders. A downside is that this can be rather chaotic and you can sometimes lose individuals who are not involved in the addition of new threats etc. to the diagram. Small working groups are easier to manage but then the separate diagrams need to be merged afterwards, adding an additional step and time to do this to the whole process.

3.2.2 Causal flow diagrams

Causal flow diagrams are a more advanced form of mind-mapping, with an emphasis on establishing the causal links between one factor and its impact or impacts. The steps to guide groups through as a facilitator are:

1) Identify major factors- what do we know and what do we think could be happening?
2) Identify how factors are or could be linked

3) Decide if the impact of each link on the next causes a direct or inverse impact
4) Diagram the links and place them together on multiple flipchart papers to see how they connect with each other and so draw a 'model' of the system driving the species down (based on the best available information at least!)

Figure 13 provides a nice example of what a final causal flow diagram can look like. The process of producing a causal flow diagram is illustrated through a worked example in **Box 7.**

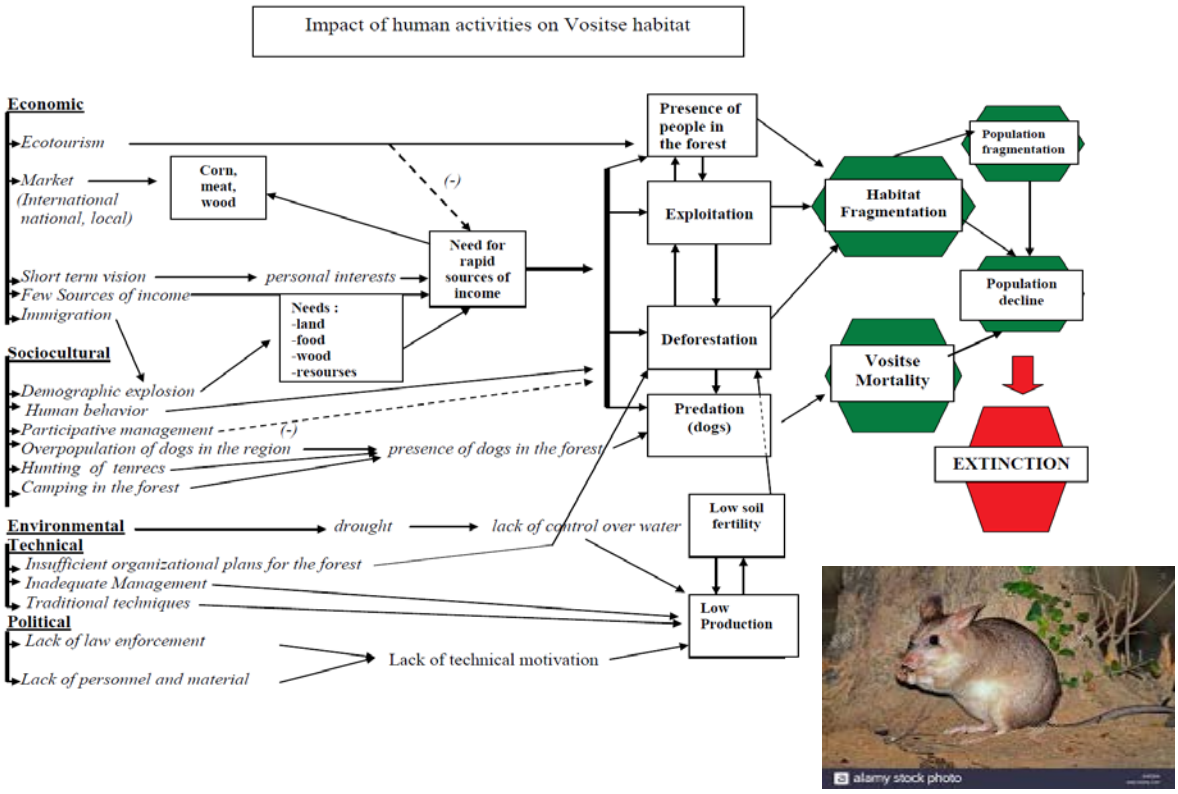


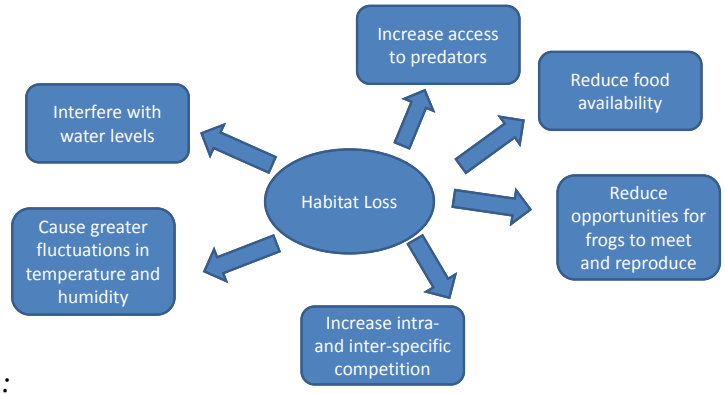
Figure 13. Causal flow diagram produced during a conservation planning workshop for the *Vositse* (Madagascar giant jumping rat). Note the range of human dimension factors that contribute to species decline.

Box 7: How to develop a causal flow diagram

Below is some text summarising some of the known threats to the Jersey population of the agile frog Rana Dalmatina *(with the main factors/ threats driving decline underlined). Under this we explain how to turn this information into a causal flow diagram.*

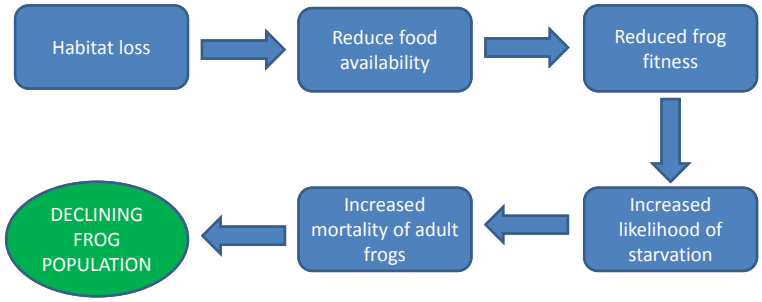
The Jersey population has been declining in both range and numbers since the early 1900s. In the 1970s there were only seven active breeding sites remaining; by the 1980s this had dropped to two. Habitat loss and fragmentation continues to threaten the remaining frog population, removing important non-breeding sites for adult frogs and causing barriers to migration routes and potentially lethal obstacles, namely roads. The reduction in both water quality and quantity threaten the remaining breeding site. There is a constant risk of domestic and agricultural pollutants running into the ponds. As the frogs breed in ephemeral ponds, the lowering of water levels can impact on the length of time the water body remains each year. Predation on spawn and tadpoles by native palmate newts is known to occur, though predation from feral ducks is perhaps of greater importance. Feral pole-cats and domestic cats are known to take adult frogs. The introduction non-native grass frogs (Rana temporaria) and European green frogs (Rana Lessonae) are likely to outcompete the native species due to their higher fecundity.

For each of the factors (e.g. habitat loss) you then ask groups to brainstorm the different ways the factor could impact on the problem, in this case being the decline of the frog population,



e.g.:

For each of the examples of how the factor could lead to population decline you then ask the group to work out what the chain of events might be, in this case beginning with reduced food….



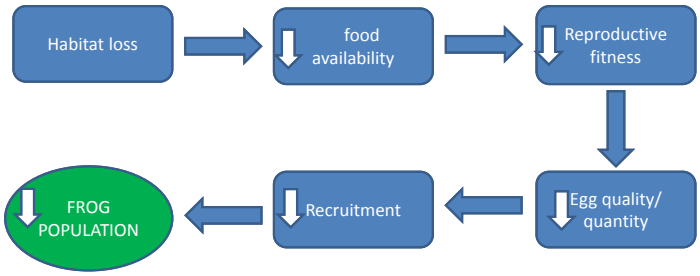
Continued...

Box 7: How to develop a causal flow diagram (continued…)

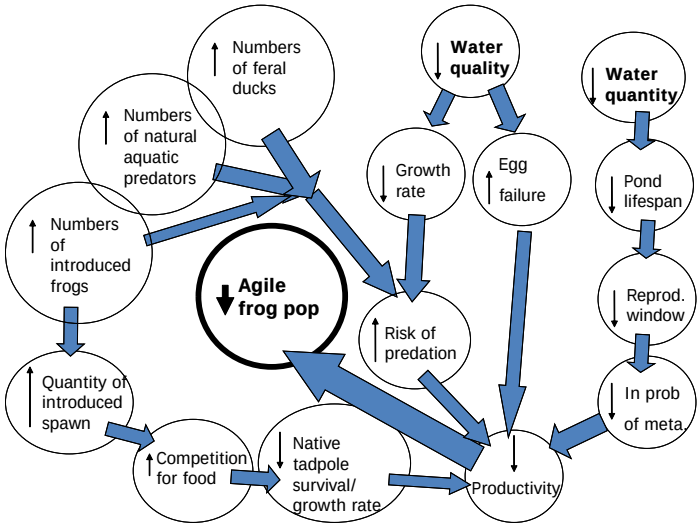
You could identify a number of ways in which reduced food might contribute to a declining frog population, for example through starvation, increased competition between conspecifics or with other- introduced- frog species. For each cause and effect chain you need to ensure the group develops them separately. If they try to add multiple chains together too early the pattern can become confusing! A second point is that each chain of cause and effect must begin with the threat and end with the final consequence, which in this case is the declining frog population.

What you should produce is a simple storyline in which each element in the chain links logically with the next. If it doesn't (i.e. if one element does not necessarily lead to the next element in the chain occurring) then it is likely there are additional steps you need to include. Each chain should look like a set of dominoes, with each element having a logical knock-on effect on the next, leading ultimately to the problem you're trying to understand.

Once the group feels they have identified all the plausible cause and effect chains, they can then arrows to each link to demonstrate if the links cause direct or inverse effects, e.g.:



The group can then begin to put the chains together on some taped together flipchart sheets to build up their model of the system, e.g. for the frog part of the model might look something like this:



The group can now begin to see how the different threats might impact on the species.

Causal flow diagrams provide a visual description of how the working groups understands how known (and sometime hypothesised) threats may impact on the population and cause decline, and how they might interact with each other to compound the impacts. They can also be used to work *backwards* from the threat to capture what the underlying drivers of the threat might be, and so present both a more complete picture of the system and provide further opportunities for strategies to be developed that might reduce the drivers as well as mitigating threats (e.g. **Figure 14**).

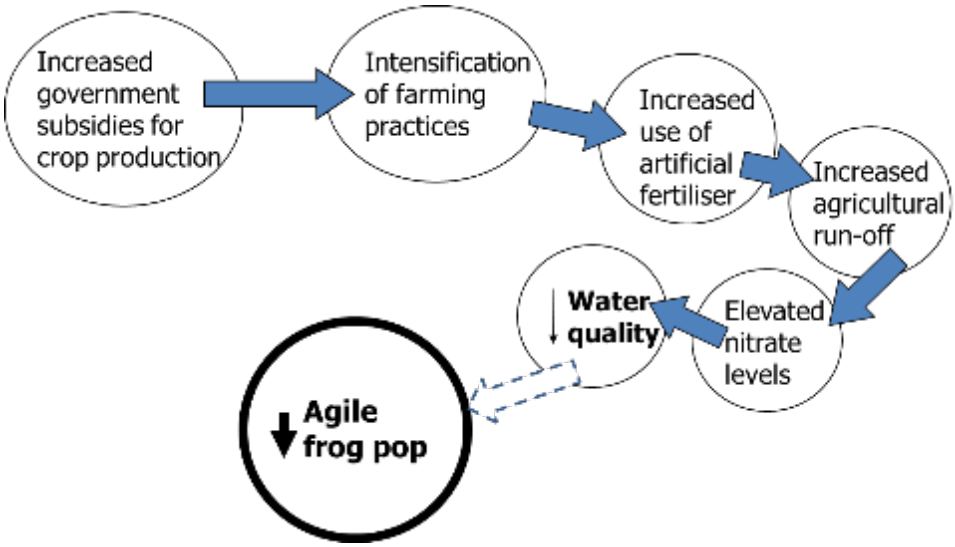


Figure 14. An example from the agile frog case where causal flow diagrams can be worked backwards from the threat (in this case reduced water quality) to understand what the underlying drivers might be.

As many of the drivers are likely to be the result of human behaviour, having (local) experts from anthropological, demographic, socio-cultural or economic disciplines can usefully complement biological experience you might have in the room.

3.3 Prioritize threats and challenges

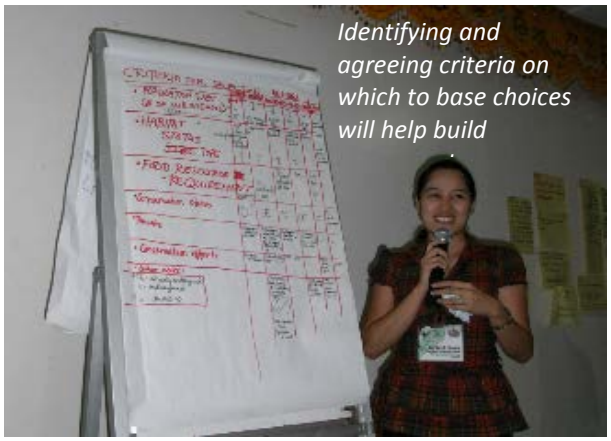
As with problem-solving tools, there is a wide range of prioritisation, or decision-making tools, that facilitators can turn to, to help groups through this process. Prioritisation is going to occur at multiple stages within a species conservation planning process, during convergent stages. They are going to be particularly relevant to deciding on priority threats, goals and selecting between strategies and actions due to the importance of achieving buy-in to the decisions made which will most likely be implemented after the workshop!

At this stage in the workshop working groups need to converge around the main threats to the species, based on their understanding of the system. This may be a simple discussion with groups

agreeing quickly on which threats are most important. Groups might also need some facilitation to achieve this. Three useful facilitation tools or approaches are:

- Identifying criteria of choice
- Sticky dots

3.3.1 Define the criteria of choice



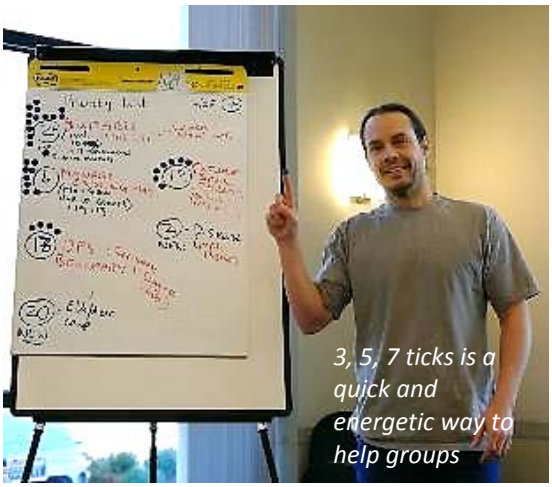
Identifying and agreeing criteria on which to base choices will help build

If groups go straight to prioritising threats they could find there are very different views as to what the priorities should be. This could be because there is a genuine difference in opinion, or it could be (and often is!) that individuals within the group are implicitly making their choices using different sets of criteria, based on what they think is most important. Some might select on the basis of which threat will impact on the species most quickly, whilst others may select based on which threat will have the greatest impact on the species. Each may be valid criteria, but unless the group discusses them and agrees on the *same* set of criteria on which to base the choice, then the group can end up with different priority threats and may find it difficult to then agree.

So, before jumping to prioritisation, it is worth encouraging the group to spend some time discussing (and possibly brainstorming again!) the criteria they could use to make the selection. Ideally they will find certain criteria which they can all agree on. They may feel not all criteria have the same value and so 'weighting' is an option. A simple way of doing this is to get the group to decide how much more important one criteria is over another (is it twice as important? Three, four times as important?). They could then add a multiplication factor to any scores given to alternatives under that criteria. In this way these priority criteria will influence the outcome more than others.

Sometimes you may find that you have to revisit the criteria if there remains disagreement over the priority alternatives, just to make sure that everyone does understand how they will be applied and also that they agree with (or can at least 'live with') the criteria. Then go back to the selection and see which threats come out on top.

3.3.2 Three or five ticks



3, 5, 7 ticks is a quick and energetic way to help groups

When you need to make quick decisions but want to avoid outright voting on ideas, 'three ticks' (or five, seven etc., depending on how many options the group has to select between) is a simple tool that you can suggest to groups. A clue to how to apply the tool is in the title! Give each individual within the group the agreed number of ticks (or sticky spots, or some other mark) they can apply to the alternatives. They then individually add on the number of ticks they want to for each alternative. Rather than voting (in which you have to make one choice) with this method you can spread out your preferences across the list of alternatives. You may decide that one alternative stands out (and so assign two of your ticks to this one), whilst also feeling another alternative has some merit (and so assign your last tick to this one). At the end of the process you add up the number of ticks and the alternative with the most is the priority for the group. If you have gone through the process of selecting particular criteria for making the choice, then each person in the group could have three ticks to assign to the alternatives under *each* criteria. So, if you had three criteria then each person would have three ticks they can assign to the alternatives under each of the criteria (and so assign nine ticks in total).

If the group consists of people who might be unsure of publicly assigning their ticks (for example if you had a group of employees with their employer, creating a hierarchy which might influence their choice), then you could stick up envelopes next to each alternative and, perhaps over a coffee break, ask each person to drop in three pieces of paper/coins/stones into the envelope next to the alternatives they prefer. In this way you can anonymise their individual responses.

Step 4: Agree on Goals

4. Agree on Goals (Divergent/convergent phase III)	4.1 Agree where best to intervene in the system	Goal setting and prioritisation
	4.2 Agree on goals for this intervention	
	4.3 Prioritize goals	

Some definitions:

Goal = *A statement describing a desired change in conditions to reduce or remove a threat (usually descriptive)*

4.1 And 4.2 Agree where best to intervene in the system and agree on goals

Once working groups have collated what they know about the species and developed their understanding of the priority threats driving it into decline, working groups can then begin to identify the tangible steps they will take to achieve desired change in the system. For example, if through problem analysis it becomes clear that the spread of particular invasive plants is compromising the population of the focal species, then there is likely to be at least one 'goal' developed around reducing this level of threat.

To help groups identify their goals, a facilitator may encourage them to brainstorm around possible goals, then winnow and cluster them. Or it may make more sense for the group to discuss each possible goal in turn as it is suggested. At some point the working groups will need to develop 'goal statements' that capture accurately what they want to achieve (**Box 8**). Helpful statements include *what* they want to achieve by acting on a particular threat and *why* it should positively impact the species. Goal statements can often be developed by simply taking the key threats and reversing them, remembering to add in the rationale as to why this change might be helpful to the species.

For example, a threat might come from the use of snares to catch other species with the target species being caught accidentally. If this was seen as a priority threat to combat (due to its impact on- for example- juveniles of a particular threatened species), then a possible goal statement linked to this threat might be, *Reduce the densities of snares within habitat X, in order to lower juvenile mortality in species X'.* In this example, if our understanding of the system is correct, then reducing snare densities should result in a reduction in juvenile mortality. Whatever actions are taken to achieve this goal, as well as snare density being monitored, so too should juvenile mortality. If it doesn't, then there is something else going on in the system that we're not aware of yet, and so at least project managers can learn about the system!

Box 8: Example goal statements from species conservation planning workshops

Below are some example of goal statements from previous species conservation planning workshops, including those facilitated by CPSG. Note that the statements consist of two parts: a description of the desired change and an explanation as to why it will help the species.

To obtain the information necessary to describe and monitor population status, dynamics and associated drivers, to identify the present and likely future threats to its persistence, to determine the characteristics of a viable population.

Research goal from Crau Plain Grasshopper conservation strategy 2015-2020

Bellinger River Virus does not pose a threat to Bellinger River snapping turtle in the wild. Measured by either absence of virus (not detectable via testing), resolution of issues relating to susceptibility, or immunity or protection provided to the species (by vaccine or otherwise).

Bellinger River snapping turtle conservation action plan 2016

To sustainably preserve, improve and increase the area of suitable P.atlantica *habitat under enhanced conservation management using habitat restoration techniques; enabling the management of existing and new subpopulations.*

Spiky yellow woodlouse conservation strategy 2016-2021

4.3 Prioritize goals

We have considered a number thinking tools to help working groups identify their shared priorities, included the use of sticky dots. This simple tool is often enough to help groups to identify their priorities. However, where more thought is needed to weigh up the relative advantages or strengths of each goal statement, more complex tools can be used; we introduce 'paired ranking' as one such tool within **Step 5** that follows.

Step 5: Evaluate Alternatives

Planning steps	Planning activities	Thinking tools
5. Evaluate Alternatives (Divergent/convergent phase IV)	5.1 Identify alternative strategies for achieving goals	Prioritisation tools -Pros, cons, fixes -Paired ranking Plan protection
	5.2 Evaluate alternative strategies	
	5.3 Decide which strategies to recommend	

Some definitions:

Strategy = *A unified approach designed to help achieve a conservation goal (usually quantitative, measureable).*

Let's recap: at this point in the workshop stakeholders have established a shared vision, developed their understanding of the main threats impacting the species currently and agreed upon priority goals to change the status of the species. It's now time for them to provide more detail around exactly *what* will be done in order to achieve the goals, change the system and so contribute towards achieving the vision. The fourth divergent and convergent thinking phase occurs at this point, with working groups generating alternative strategies that could achieve the goals then selecting from these which they want to put into practice during the plan implementation to follow.

5.1 Identify alternative strategies for achieving goals

The facilitator may begin this phase with divergent thinking tools, such as brainstorming, to generate possible strategies. Working groups are likely to mix strategies with actions at this point, actions being specific activities that would be undertaken achieve a particular strategy. For example, the group might identify translocation of some individuals from one population to another as one 'strategy'. The strategy is *what* you're trying to achieve and the broad steps to get there. Conversely, the 'actions' are the individual steps involved in realising the strategy, in this case, including: selecting individuals for translocation, identifying means of transport, deciding how the individuals will be monitored on release etc.

During the clustering phase it is likely that related actions will be lumped together under the relevant strategy. Alternatively, conducting a mind mapping exercise would encourage working groups to decide whether any given idea is an action within an existing strategy already on the mind map, or something distinct. If a PVA was included within the workshop, then returning to the PVA to

develop scenarios involving different sorts of intervention to see what impact they might have will help generate ideas as to the alternatives.

Encouraging the group to return to their goal statements can be a helpful way of stimulating thought around alternative strategies. Once ideas have been generated, some form of prioritisation process is required in order to select out those strategies and actions that the group wants to take forward to implementation. Helping working groups to ensure the different strategies they are considering are distinct is an important facilitator role at this point.

5.1.2 Make sure the options are distinct

Imagine you're trying to help a group prioritise between two apparently alternative strategies:

1) Deliver and education campaign; and
2) Run a schools programme

Can you see where the problem might be? There is clearly an overlap between these alternatives. As they're currently written a schools programme might be *a part of* an overall education campaign. This is going to make it difficult to select between them as they're not at the same level. As a facilitator you might ask the group to define what they mean by 'deliver and education campaign'. Is it for a particular group of people within the community? Adults? Fishers? Hunters? Etc. Within the schools programme you could also ask whether there are particular age groups that they'd like to reach. Getting the group to check back on their goals (i.e. why they've generated these options) can help to refine what they're really wanting to write as alternative strategies. In the end you might find that the group wants to engage adult farmers within a particular community, within the education campaign, and so the alternative could be restated as something like, 'run education campaign for adult farmers'. Now it will be easier for the group to distinguish between the two alternatives, and so prioritise.

5.1.3 Prioritisation tools

Paired ranking

Paired ranking is a helpful tool where you have long lists to select between and it is hard to consider them all at the same time. This technique involves restricting yourself to making a choice between only two items/ideas at a time (**Box 9**). You can add further layers of complexity if it seems appropriate. You can, for example, ask the groups if they would think it helpful to conduct a paired ranking exercise for the alternatives against each criteria in turn. This can become cumbersome if too many criteria and alternatives are involved, though is helpful when groups have to select between more than 5-6 options at a time, and assuming the group can understand the process!

Box 9: How to use paired ranking to make choices

Let's say we wish to rank the five fruits we like best:

1. *First list the fruits in a column one below the other (see table below).*
2. *Ask yourself, which is better, apples or oranges? Put a mark next to the one that's better (this is your criterion for the ranking).*
3. *Then ask which is better, apples or kiwis? Put another mark after the one you prefer. Continue down the list until you have compared apples with each of the other fruits. Then, compare oranges with kiwis, oranges with peaches, and so on. Then, kiwis with peaches and kiwis with apricots, then peaches with apricots.*

1st Set	Score	2nd Set	Score	3rd Set	Score	4th Set	Score
Apples	II	Apples	II	Apples	II	Apples	II
Oranges		Oranges	I	Oranges	I	Oranges	I
Kiwis	I	Kiwis	I	Kiwis	II	Kiwis	II
Peaches	I	Peaches	II	Peaches	III	Peaches	III
Apricots		Apricots	I	Apricots	I	Apricots	II

The total number of marks in this case is 10 (the results in the 4th set above). You can then compile the results of all individuals within the working group to identify which fruit, in this case, has the highest number of ticks next to it and so is the overall best (see below for a mock example of the results of four individual's rankings for the fruit, showing apricot to be the preferred fruit).

Fruit	Person 1	Person 2	Person 3	Person 4	Total votes	Rank (1= high)
Apples	0	0	0	0	0	5
Oranges	1	1	1	1	4	4
Kiwis	4	2	3	3	12	2
Peaches	2	2	2	4	10	3
Apricots	3	5	4	2	14	1
Totals	**10**	**10**	**10**	**10**	**40**	

In this case the criteria were not made explicit. You could though decide on the criteria of choice and place them in the column and then each individual makes their paired ranking selection based on these criteria. This is likely to lead to increased levels of agreement over the outcome.

Pros, Cons, Fixes

A helpful tool in comparing alternative strategies is Pros, Cons Fixes. Write up three columns under each alternative course of action being considered and ask the working group to identify all the Pros (advantages or strengths of this alternative) at the top of the first; Cons (disadvantages or risks with this alternative) at the top of the second; and at the top of the third column, Fixes (i.e. what could they do to 'fix' or overcome the disadvantages or risks detailed in column two) (**Figure 15**).

Alternative 1: replace non-reproducing captive-reared males with wild-caught males

Pros	**Cons**	**Fixes**
-Introduce new genes to the captive population -New males likely to be parent-reared and so reduce risk of behavioural problems -etc.	-May have a negative impact on the wild population -The wild-caught males may be from a population distinct from the captive stock and so we may be introducing inappropriate genes to the population -etc.	-Only use surplus, unpaired wild males -Conduct genetic tests prior to introduction to ensure wild males and captive females from similar lineages -etc.

Figure 15. Pros, cons, fixes table for a hypothetical alternatives to increasing reproductive output within captive parrots. Other alternatives (e.g. removing the captive population of parrots altogether) could be analysed in a similar way then compared with the tables for other strategies to see which has the most pros and have its cons mitigated with the fixes.

Step 6: Specify Actions

Planning steps	Planning activities	Thinking tools
6. Specify Actions	6.1 Document actions required to accomplish selected strategies	Setting SMART actions

Some definitions:

Action = *Specific tasks designed to accomplish a given strategy. (detailed: how, when, where, by whom)*

6.1 Document actions required to accomplish selected strategies

Within the strategy or the action statements there needs to be clarity around what exactly is being proposed, by when it will be completed and by whom. This ensures that the broader visions and goals are translated into more tangible action statements that can be incorporated into individual or organisational work plans etc. during the implementation phase. To be most useful groups should be encouraged to produce SMART action statements. First mentioned in 1981, in an article by George Doran, SMART (**Figure 16**) provided a helpful acronym to guide the development of tangible statements of intent.

Acronym (original)	Definition
Specific	Target a specific area for improvement
Measurable	Quantify/suggest indicator of progress
Assignable	Specified to a person to deliver
Realistic	Realistic in terms of resources available
Time-related	Restricted to a date when results will be achieved

Figure 16. Original definition of SMART goals/objectives (Dolan 1981)

As a facilitator your main concern is around helping groups to be clear about what they mean with each action and so using your listening skills will be key. Having those with power (financial or political) at the workshop is particularly helpful during this stage as they are in the best position to agree on resource allocation and to sanction decisions.

As a facilitator of this stage in the process your role is to encourage working groups to focus in on individual strategies and actions and list out accountabilities, timeframes etc. Revisiting the structure of a SMART objective can be helpful in providing guidance to working groups as to how to develop action statements which provide clarity over what is to be achieved, by when and how

success will be measured (**Box 10**). Within a CPSG planning workshop action statement development usually begins in the afternoon of Day 3 and can take the whole of the morning of Day 4 to complete. To speed the process it can be helpful to split the working group into sub-groups with each taking a list of actions to develop details around. This can work as long as time is allocated for the working group to re-assemble *prior to* a plenary session, so they can read through all the action statements developed and reach agreement.

Box 10: Explicit action statements that provide clarity over who will do what by when

Below we provide an example of a detailed action statement linked to a goal and ultimately to a threat, which was developed during a conservation planning workshop for the Javan rhino Rhinoceros sondaicus, *in 2015*

Identification of Conservation Actions

Threat 1
Javan rhino population abundance has stagnated due to insufficient habitat and population management, inbreeding depression, limited carrying capacity and disease.

Goal 1
The Javan rhino population is managed to achieve genetic and demographic viability by increasing population abundance to a total of at least 80 individuals in at least two sites by the year 2025.

Action 1: Identify home range and relatedness of individual rhinos in Ujung Kulon via dung collection/genetic analysis/camera-trapping.

Responsible Parties: Coordinator: Director UKNP
Camera-trap: AOM - UKNP
Genetic analysis: Dadan Subrata - YABI .

Timeline: May – Sept 2015, 16 sample collection; Oct - Feb 2015, 16 sample analysis.

Outcome: All individuals in the population have been identified, sex, genetic relatedness and breeding status is understood, and home ranges of each individual mapped .

Collaborators: Genetics
Eijkman - Prof Herawati
LIPI - Dr Zen
University - Dr Dedi Duryadi
Forda - Pujo
Camera - trapping
YABI - Waladi
WWF - Ridwan

Obstacles: 1. No genetic primer available to conduct the DNA analyses.
2. Uncertainty how to select animals for moving to the 2nd population

Important considerations: We should not wait for the genetic information to move animals and establish a 2nd population. Genetic information can be layered in later.

Note, in this instance workshop participants decided to include a numerical target within the goal statement and more importantly, they link the target to what change they want to achieve, i.e. genetic and demographic viability. Also note that in this instance, the risk assessment process was incorporated into the action statement, and termed 'obstacles'.

Step 7: Prepare to Implement

Planning steps	Planning activities	Thinking tools
7. Prepare to Implement	7.1 Agree on an implementation framework	Project governance structure development
	7.2 Prepare to follow and record progress	
	7.3 Assess capacity needs of implementers	

Some definitions:

Implementation framework = *The proposed organisation of individuals and organisations to implement and coordinate the recommended conservation actions*

Governance = *The process by which people and organisations within a project are organised and how decision-making and communication between these groups is managed.*

7.1 Agree an implementation framework

Conservation projects often fail because there is a lack of clarity or agreement over how individuals and organisations within them will be organised and linked, or where decision-making and coordinating powers lie. 'Governance' is another way of describing the implementation framework. It refers to the process by which decisions are made and communicated, individual roles and responsibilities identified and assigned and, ultimately, how accountability is built into a project. Within a species conservation project there are likely to be multiple organisations involved. Planning how they connect with each other and their accountabilities helps all stakeholders understand how the project will be managed. As we discussed in Preparing to Plan, determining what sort of implementation framework (or governance structure) is most likely to be in place for the project helps to ensure that all relevant stakeholders are involved at the right time and in the right way. It can also help get expectations clear at the outset. As you near the end of the workshop process, it is worth revisiting this framework to help working groups visualise how the project will function.

Although governance structures vary, a simple but effective structure to discuss with working groups involves three components: the Project Sponsor, Project Manager and the Management Board (**Figure 17**). Many conservation projects do NOT look like this! However, the simpler the governance structure the easier it will be for project managers to receive the support they need to complete the work as planned.

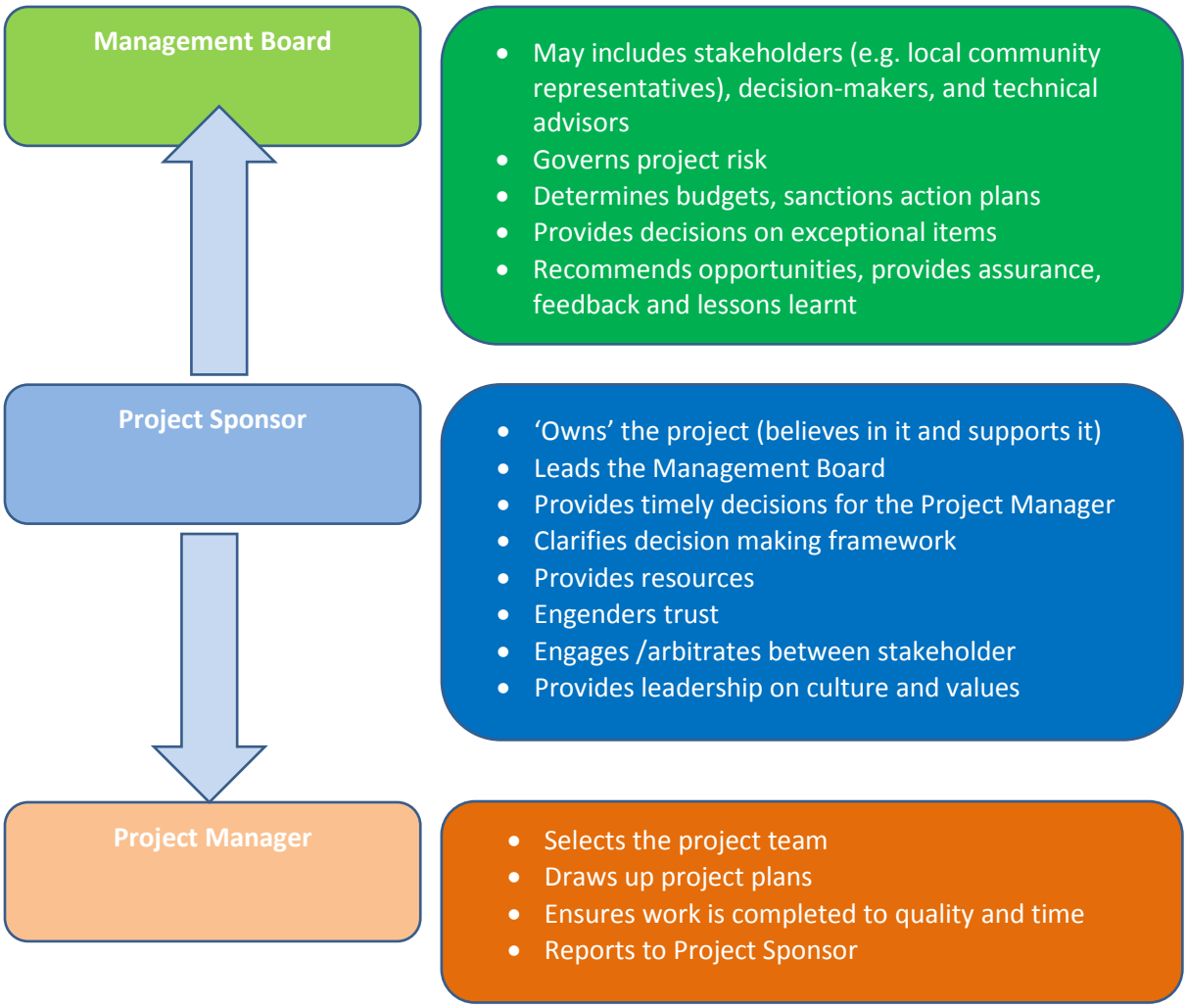


Figure 17. A simple governance structure for a project

Given the limitations of time and often power within participants at a planning workshop, you are unlikely to be able to develop this level of detail around project governance. However, you can often encourage discussion around which individuals and institutions are likely to be involved and how they might be connected **(Figure 18**).

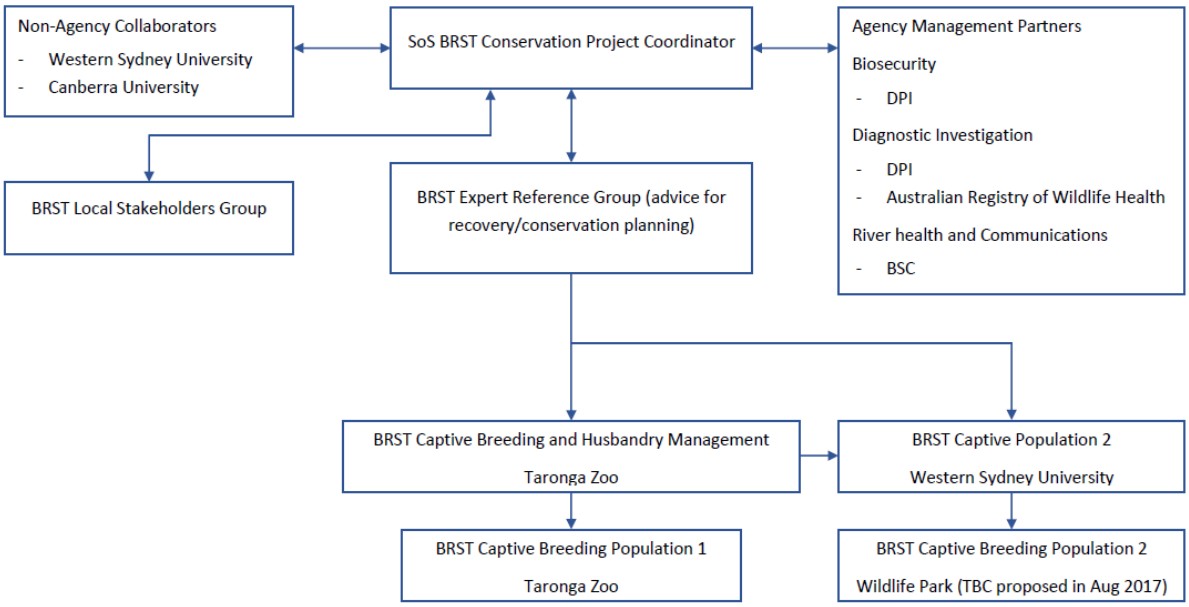


Figure 18. Example implementation framework for conservation plan for the Bellinger River snapping turtle

To help monitor implementation of the project (and so inform whether or not the planning process could have been improved), it is useful to identify someone who will be in charge of tracking actions against when they were supposed to happen (**Figure 19**). This is often a discussion you might have with workshop organisers rather than individual working groups, and so is likely to be one that you have outside of the workshop.

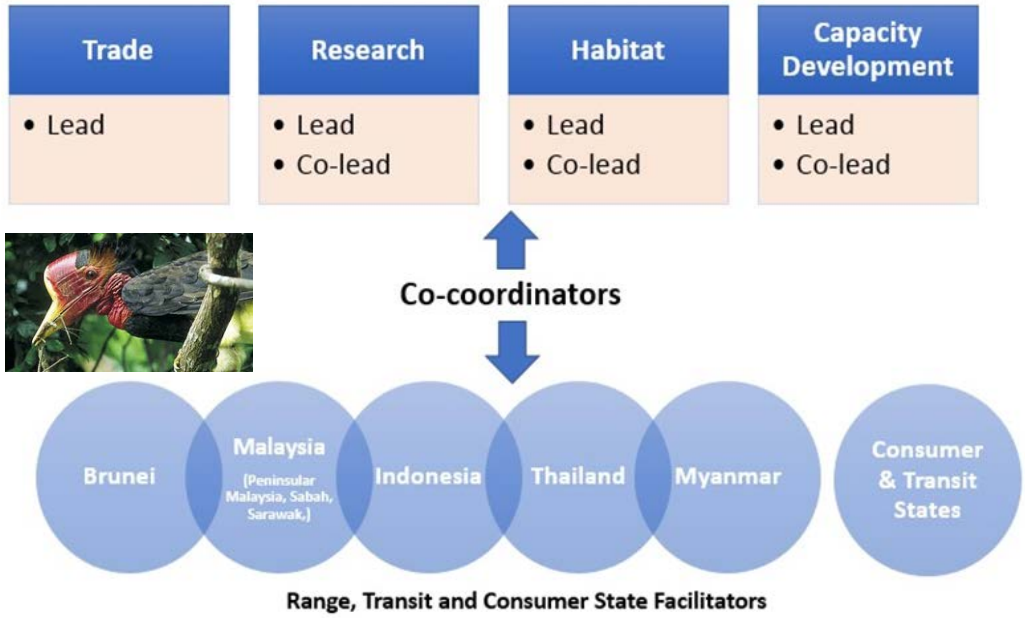


Figure 19. Draft diagram to illustrate how co-ordinators for helmeted hornbill *Rhinoplax vigil* will connect thematic and country leads, developed during the workshop

7.2 Prepare to follow and record progress

As with the implementation framework, as a facilitator you will only be able to suggest (rather than dictate) the extent to which workshop participants identify how they will monitor progress in implementation following a workshop. This is activity is also likely to be one that is not concluded within the workshop, but can be discussed with workshop organisers afterwards. CPSG has developed a 'project tracking tool' (**Figure 20**) which it is currently piloting, to provide a simple means by which project co-ordinators can update project partners on implementation progress and reasons for delays in certain areas. CPSG also requests a copy of this report as it not only provides a measure of success of the planning process, but also highlights where progress is slow and whether or not subsequent planning processes can be modified to overcome such barriers.

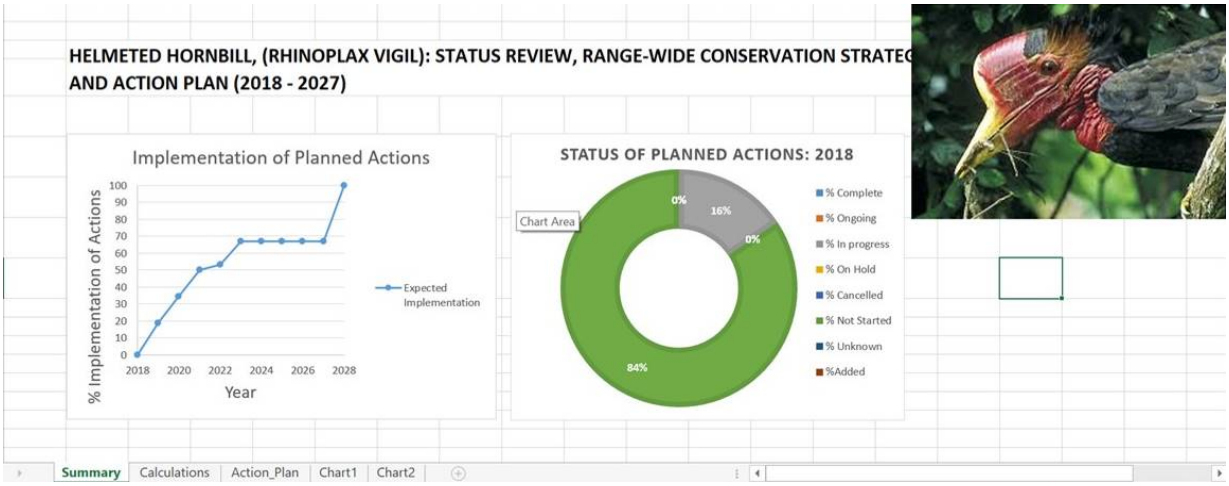


Figure 20. Example output of CPSG tracking tool (pilot), for helmeted hornbill project

More complex and thorough project management tools (e.g. Miradi, https://www.miradi.org/) can provide detailed updates and inform project implementation. Such software goes beyond the scope of the planning workshop and of this guide.

Ending the workshop

Towards the end of the last morning on the last day of the workshop, you as the facilitator will be encouraging participants to agree on the final actions or recommendations to be taken forward, checking if people can at least 'live with' them. Even after a clearly thought-out process, application of thinking tools and attention to interpersonal interactions, you will sometimes have participants that are in disagreement with the selected actions. These individuals should be given the opportunity to have their dissent acknowledged within the final workshop report.

If you've ensured working groups identified roles for the computer note taker at the start of the workshop, then working groups are well-placed to summarise what they have covered and be able to transform their notes into some form of presentation in plenary, including details on the implementation framework. As the facilitator, you might allow working groups to decide how they are going to distribute the work of producing and delivering the presentation- they may have been working together for several days now and so should be able to organise the roles and responsibilities themselves.

Working group report-back presentations are then usually followed by some form of plenary discussion (where your abilities to facilitate open discussions (**Section 4.1**) may be tested!) where groups are allowed to question speakers and raise any final comments they feel necessary before the workshop concludes.

There is some additional housekeeping that you should check off, including seeking feedback from workshop participants on the workshop to help with the facilitator's own learning and improvement (e.g. **Appendix IV**). Before people leave the workshop it should be clarified with them all what the next steps will be following the workshop, including the time to produce a draft report and circulate to all for their input, and when this report will be finalised and sent to relevant decision-makers for their sanction.

There may need to be an official closing ceremony in which local dignitaries may want to give their official seal of approval to the workshop and its outputs and relevant people can be officially thanked. Securing the appearance of a significant decision-maker for the closing ceremony can be very helpful in gaining the political support the workshop recommended actions need to be turned into reality.

This point in the workshop is also possible the last chance for participants to say goodbye, take photos and share contact details, and so providing some open time for this exchange to go on is wise. Finally, it is important to think about how people's participation and achievement can be recognised and celebrated; they're likely to have gone on quite a mental journey during the workshop and so recognise they've made it to the end and conclude on a high!

Finalising the workshop report

Assuming one of the outputs of the workshop will be a report- summarising the agreed actions or recommendations and detailing workshop process- then you need to ask a number of questions of

the core planning team before you physically leave the event. Within CPSG workshops, often it is us that coordinates report production. Drafts of the report should go out to all participants to give them a chance to comment to ensure it truly reflects what happened at the workshop. It may be necessary for other people to receive the report and so knowing who these might be and in what format they will want to receive the report is helpful before you wrap up the workshop.

Finally, it's important to clarify the process for sign off of the recommendations- do they need to be sent to particular individuals or institutions for their approval before any of the actions need to be implemented?

There may be other steps that could be taken to help support implementation, such as identifying an informal group that will meet to review progress and prompt relevant people into action. There are now remote ways of presenting plans and monitoring project implementation following the planning process (**Figure 21**), thereby ensuring that everyone can stay abreast of developments from planning to action.

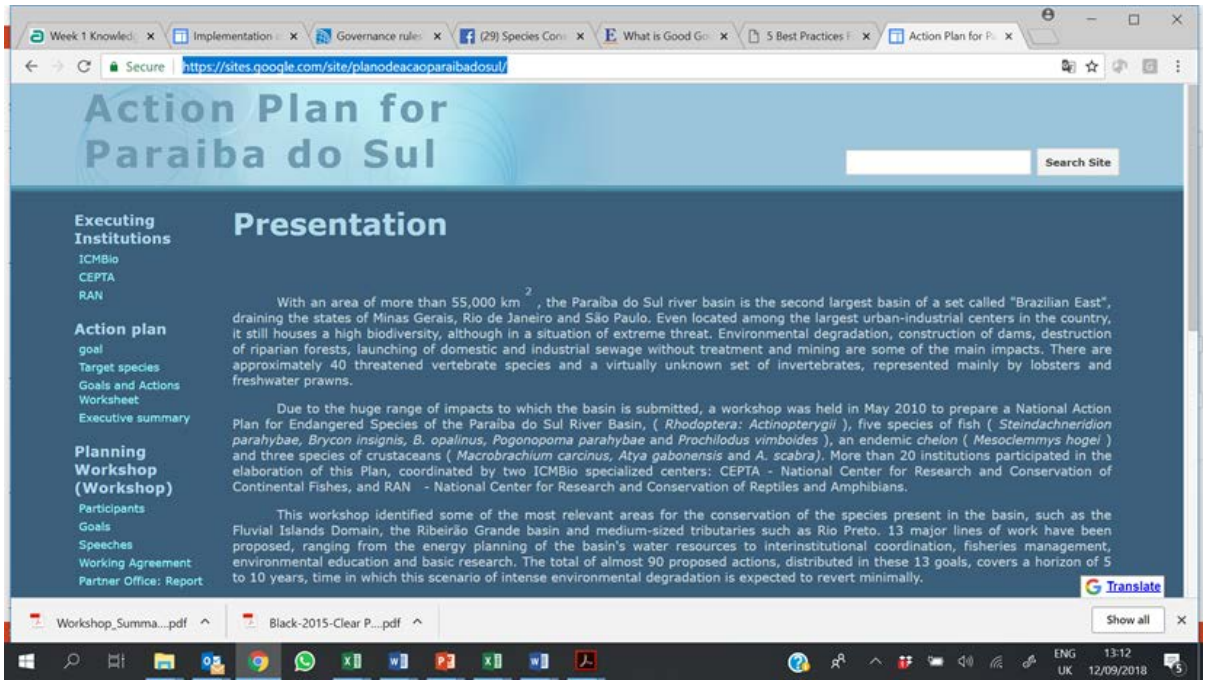


Figure 21. Example post-workshop project tracking tool (https://sites.google.com/site/planodeacaoparaibadosul/)

Step 8: Share, Learn and Adapt

8. Share, Learn and Adapt	8.1 Assess and analyze results of implementation 8.2 Document, share (ideally with CPSG!), learn and adapt

CPSG's post-workshop tracking tool is designed to help project co-ordinators capture core information on the extent and reasons for (or reasons for not!) implementing the recommended actions. As a facilitator, you may well not be directly affected by the extent of project implementation that occurs. However, it is important to maintain links with project co-ordinators in order to learn what happened afterwards and consider how this might influence future planning processes. This feedback will also encourage reflections on the relevance of particular thinking tools, and the extent to which interpersonal skills enabled cohesion between project partners and alignment over what actions needed to be taken as a priority. Sharing the lessons learnt with other facilitators can also help inform their facilitation practice, and so improve the process of species conservation planning.

CPSG maintains an active database of species conservation plans including those facilitated by its own staff. This resource (http://www.cpsg.org/document-repository) will become increasingly valuable to facilitators looking for alternative tools and processes to help them guide the development of effective species conservation plans.

4.0 Additional tips and tools

4.1 Facilitating open discussions

Facilitating open discussions is a skill that you need to develop as a facilitator, during the opening ceremony or during plenary sessions, when working groups come together to share their results and discuss. You will find yourself having to field multiple questions or deal with a sea of hands in the air, all attached to people who have something they feel is important to say. How you deal with these sorts of situations can make a significant contribution to the overall effectiveness of the workshop process, as new information can come forward and the time can be used to help build understanding and acceptance of ideas.

Facilitating open discussions can tiring but productive as they generate new information and understanding

For the facilitator, open discussions can be an exhausting process!! The facilitator's two central challenges are: how much should I say, when should I say it? Underlying these judgments are two central concerns:

- **Determining who talks when**. *Should the facilitator keep attention focused on the person currently speaking? Or should the facilitator move the focus away from that speaker and call on others?*
- **Focusing the discussion.** *Should the facilitator keep the focus on the specific points being made by the current speaker? Or should the facilitator help the group move away from those specific points and move on to an entirely different line of thought?*

4.1.1 Stacking and interrupting the stack

During an open discussion, many groups have trouble determining whose turn it is to speak next. Often the decision is left to individual members, but this can lead to confusion and inequity. Those who think it is polite to wait for a lull in the conversation usually end up waiting much longer than those who start talking whenever the preceding speaker takes a breath. Those who are more assertive may come across as dominant or rude, while those who are more tentative may come across as having fewer ideas to contribute. One of the most valuable contributions a facilitator can make is to help group members know when it is their turn to speak.

As a facilitator you can help group members know when it is their turn to speak

'Stacking' lets participants know that they will have a chance to speak.

'Stacking' is a highly effective and easy-to-master way to direct the traffic of an open discussion. To stack, a facilitator simply asks people to raise their hand when they want to speak. As hands go up, the facilitator assigns each one a number, "You're first, you're second, third, etc." Then whenever someone finishes, the facilitator calls the person next in line. After the stack is complete, the facilitator asks if anyone else wants to speak and asks them to raise their hand. The problem with stacking is that it impedes spontaneity – no one has the opportunity to make an immediate response to someone else's remarks. No matter how provocative those remarks might be, everyone has to wait for their turn.

If the facilitator observes a sudden flurry of hand-waving or agitated body language, these are indicators that people may feel more than usual pressure to respond quickly to an important remark. To handle this problem, the facilitator can say, *"I'm going to interrupt the stack for a couple of minute and let two or three people respond to this last comment. For those of you who already are in line to speak, don't worry, I won't forget about you."*

'Interrupting the stack' allows a group to spontaneously intensify a discussion, but it can also create the appearance of a facilitator who plays favourites. To prevent this, a facilitator should, when s/he first asks for raised hands, state that s/he might interrupt the stack to permit responses to a hot topic. Facilitators who rely too heavily on stacking often get complaints that they didn't help the group stay focused enough, or that focusing on letting everyone speak didn't allow the group to get into the meat of the topic.

Stacking alone is not sufficient. If overdone, it gets tiresome. But it's a very important intervention that can help create an environment in which everyone is seen to be equal and have an equal chance to say what they want. It's really useful if you are facilitating a discussion in a rigidly hierarchical group – it makes room for participation from low-status members.

4.1.2 Encouraging, balancing, making space and using the clock

Not all groups benefit from stacking, especially if they are small or have a highly competitive style of interacting. Yet members of groups like this may still need help knowing when they can speak. This problem becomes especially important whenever the flow of discussion falls under the spell of two

or three high-participating speakers who are allowed to dominate the proceedings. At those times, a facilitator can use informal methods to shift the focus away from the frequent contributors and create opportunities for less frequent contributors to speak. Four such tools are encouraging, balancing, making space, and using the clock.

When using the technique of 'encouraging' a facilitator says *"Who else wants to say something?"* or *"Could we hear from someone who hasn't talked in a while?"* The assumption is that some people need a little nudge to speak up. Encouraging provides extra support for those who need it. The entire group can benefit from this intervention, because it takes the pressure off everyone. Frequent participators are freed to speak without fear that their contributions will overpower others; infrequent participators feel more invited to offer their ideas without fear of appearing rude or aggressive.

'Balancing' is useful when most members of a group appear unwilling to disagree with the opinion of the person who has just spoken. For example, suppose a member of the groups who has great stature says *"Road kill is just not a threat. The animals use the underground tunnels to cross the highways."* Using balancing, a facilitator could say, "*As we all know, there are many times when different people have different perspectives on the same situation. In this case there has been a statement that that road kill is not a threat. Does everyone see it that way, or are there other points of view?"* Or, the facilitator can ask *"Does anyone else have a different point of view?"* All of these accomplish the same goal: they lend support to people who do not agree with the mainstream point of view.

'Making space' involves questions or supportive statements that are aimed at specific individuals. For example, a facilitator may say, *"Guillermo, you look like you want to speak, do you?"* Or, *"Patricia, did you have something you wanted to say?"* Invitations like this work best when a participant has actually made gesture indicating that s/he may want to speak. This is why you have to pay attention to body language and facial expressions. For example, some people lift their finger without raising their hand. Others raise their chin in a sort of reverse nod. Of course it can be a little risky to call on people because they feel like they are being singled out. A facilitator should use this technique sparingly only when s/he sees a gesture that appears to mean, "*May I talk"* or *"I have an opinion too."*

Pay attention to body language- it will give you clues as to how the group is feeling

The technique of 'using the clock' involves statements like these, *"We have 10 minutes left, and I want to be sure we have heard from everyone who wants to speak – particularly those who haven't had a chance yet. Is there anyone who wants to speak?"* Or, "*we only have time for one or two more comments – can we hear from someone who hasn't spoken for a while?"* These interventions should communicate that if you want to speak, now is your chance.

Another way of using the clock is aimed at situations when a few people have become highly engaged in discussion. To give other members a chance to participate, a facilitator can say, *"We still have more than 15 minutes left in this discussion. How about if we hear from someone who hasn't spoken in a while?"*

4.1.3 Helping individuals clarify what they mean

Sometimes individuals find it difficult to explain what they really mean and you, as the facilitator, may also struggle to understand. This often happens in groups where certain individuals might be a little intimidated or unused to speaking in public. In these situations you can turn to your listening skills! Ask clarifying questions or ask for examples. Sometimes paraphrasing can help, such as, *"So what your saying is…"* Mirroring back is a fantastically helpful tool to use, in which you simply reflect back to the person what you feel you have heard, which gives the person the chance to say "*That's not what I really mean…",* or, *"Yes, exactly!"*

4.1.4 Tracking, theming, framing

Open discussions often branch into several distinct sub conversations. 'Tracking' means keeping track of those various lines of thought. A facilitator tracks by saying things like *"I think you're discussing several issues at the same time. Here they are…."* Then s/he identifies each track.

'Tracking' is about helping the group realise the different themes they're discussing.

Tracking is valuable when a discussion is at its most competitive– when people are least likely to be listening to on another. These are precisely the times when directive methods like stacking don't work! When everyone is tensely pushing their own agenda, suggestions by the facilitator are hard to hear and respond to. At such times, a facilitator must refrain from prioritizing or structuring the discussion. Instead s/he remains neutral and alert to the necessity for supporting every speaker. Tracking reassures everyone that at least someone is listening!

It's also important to complete a tracking intervention. After showing a group the themes they have been discussing, the most effective method to complete the intervention is to check for accuracy and then do no more. Ask *"Have I captured all the themes?"* Someone may say, "*No, you missed my ideas."* If so, correct it, and finish with a summary. Then stop. **Do not ask the group what they want to focus on next. T**his can create havoc! Usually, the group itself will integrate the topics. If someone insists on returning to his or her own theme, the facilitator has to suggest a deal. *"Can we spend a few minutes on this issue, then shift to some other themes?"*

'Theming' is similar to tracking. The major difference is that the themes are identified by the group not the facilitator. The facilitator simply writes them on a flipchart. When people have finished listing themes, the facilitator then can take people back to the discussion. If needed, s/he can guide the group back to the list and help them structure it more.

In 'framing' the facilitator begins by pointing out that several conversations are underway. S/he then says, *"Let's remember how this discussion began"* and restates the discussion's original purpose. For example, *"Originally we were discussing the status of threats for the Iberian lynx. The conversation has now branched out in several directions. Some might be important to pursue right now; perhaps the others can be deferred. Which ones do you think are relevant?"* The remaining steps are the same – record the group's answers then return the group to open discussion.

4.1.5 Steering the discussion

Sometimes it may be necessary to influence open discussions so you can check that topics most relevant to the group have been sufficiently covered by the group. 'Calling for responses' is one technique that facilitators can use to open up a topic raised by one person for others to contribute to or challenge. At times a facilitator may say something like *"Does anyone have a reaction to what Nigel just said?"* Or, *"After listening to the previous three speakers, does anyone have any question or them?"*

Questions like these guide whoever speaks next to remain on the same track as the person who has just spoken. Calling for responses is a method of preserving the focus of the discussion, even though it also encourages participation from new speakers. When the facilitator asks for broader participation, this move is rarely opposed or distrusted. Participants tend to view calling for responses as a neutral effort to keep the discussion moving.

Calling for responses helps to keep the discussion on a particular theme

When the facilitator 'deliberately refocuses' the conservation, they say things like, *"For the past 10 minutes you have been discussing topic XYZ. But some of you indicated that you wanted the group to discuss topic ABC as well. Is now a good time to switch?"* Or, *"A little while ago Kim raised an issue, but no one responded. Before we lose that thought altogether, I just want to check – does anyone have a comment for Kim?"* Deliberately refocusing helps the discussion to move away from one content area to another, opening the way to provide for discussion of other issues. One of the most effective and least offensive occasions for deliberate refocusing is when a group has allowed two or three speakers to monopolize the discussion for several minutes or longer.

The major disadvantage of this method is that the facilitator runs the risk of being perceived as non-neutral – as choosing to cut off discussion perhaps before the group has completed their thoughts on the topic. Therefore, this technique should be used sparingly.

'Sequencing' is used when you realize that the group is discussing multiple themes at the same time. The facilitator could intervene by saying something like, *"From where I'm standing it appears that we're starting multiple discussion topics at the same time. Person X has just been talking about the strengths of captive breeding as a conservation tool which was followed by person Y who then wanted to return to a previous discussion point. What I'm going to do is suggest we ask if anyone has any further points they'd like to add to person X's point about captive breeding. Then after we've had a couple of minutes on that topic I'll as person Y to summarise their point again and spend a couple of minutes discussing that. Finally we'll take stock and see which topic the group wants to drill down into further".*

Sequencing is good because it validates both perspectives and it allows the group to focus on one discussion topic at a time but multiple topics, 'in sequence'. However, with more than two topics being raised this approach can get in the way of discussion flow.

Each of the techniques described above have their own strengths and limitations. Remember, that as a facilitator of an open discussion your task is to ensure everyone who wants to have their chance to speak and that the discussion remains relevant to the workshop. Open discussions are going to occur at multiple points in a workshop, in particular at the end of the main divergent and convergent stages that follow.

Once the opening ceremony, presentations and discussions have been completed it is time for working groups to form and the first phase of divergence and convergence to begin: defining success.

4.2 Responding to interpersonal conflict

Conflict is not necessarily bad or unhelpful. It can arise due to different opinions or interpretations on the same topic, or because individuals have different levels of knowledge or understanding about it. In these situations constructive 'differing' (as outlined in the section on listening) can help to surface more information (which can help with developing better decisions) and help individuals to understand each other's perspectives (and so support greater acceptance of the outcome). There will be times as a facilitator, though, when you have to deal with more challenging cases which are harder to resolve, potentially because of conflicting values. Under these circumstances you may need to consider alternative ways of dealing with the conflict.

We will all have our tendencies as to our 'default' way of dealing with conflict. Some of us may naturally force our opinion, whilst others may tend to accommodate the views of others. There are those that quickly try to seek a compromise and those that will want to avoid conflict situations. Each of these approaches have their own strengths and weaknesses and are probably the most appropriate way of dealing with conflict under certain conditions. But none of these approaches are appropriate in all situations.

Figure 22. Provides a summary of five different ways of responding to conflict, including 'collaborating' as being both an assertive and cooperative approach to adopt. It can often seem as if collaboration is what we should always be striving for, but it too has its downsides. In particular, collaboration takes time and may also take skill to facilitate.

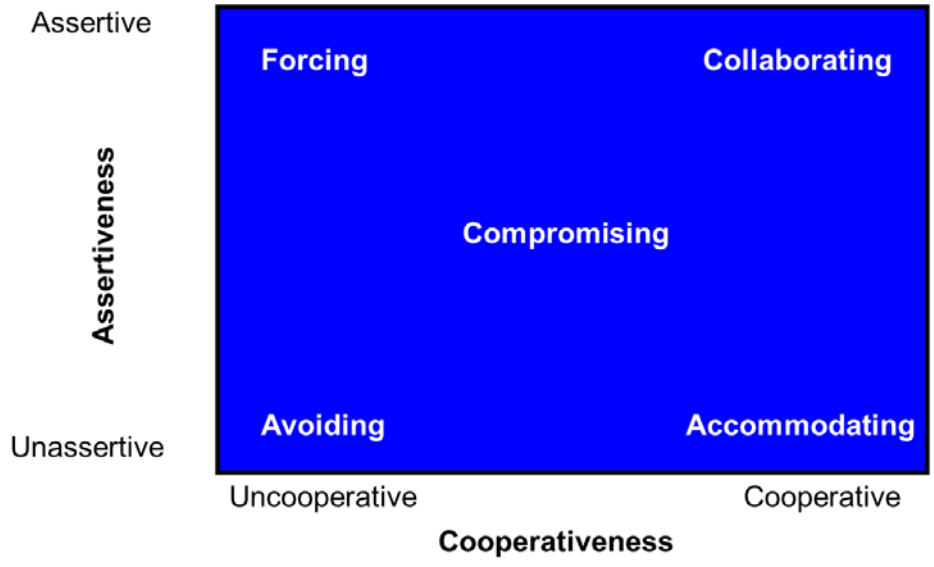


Figure 22. Alternatives for responding to conflict

4.2.1 Selecting the conflict resolution approach for different situations

Deciding which approach is most appropriate in a given situation will depend on (**Table 11)**:

1) The importance of the relationship; and
2) The importance of the issue

Situation	Forcing	Accommo-dating	Compro-mising	Collabor-ating	Avoiding
Issue Importance	High	Low	Med	High	Low
Relationship Importance	Low	High	Med	High	Low

Table 11. The situations under which each conflict mode is most appropriate

So when you're dealing with an important issue (such as a decision as to whether or not disease can be ruled out as a likely significant threat to a species), it may be best to 'force' the opinion of one party which has evidence in their favour, even if the other party disagrees, unless they can provide a solid counter-argument. Conversely, where the relationship is more important than the issue (e.g. when two stakeholders might be coming together for the first time and you want to encourage one to be more vocal within the decision-making process) you might want to accommodate' their views, as long as the issue is not that important!

Collaboration is great when both the issue and the relationship is important, but remember it can take time and so there is a cost associated with it. You are likely to have to practice your listening skills to encourage each party to explain what they're feeling and what evidence they have for their apparently conflicting views. There are situations in which 'avoiding' the issue is most appropriate, in particular where it is a symptom of some other issue unrelated to the focus of the meeting, or if the group situation is not the best place to resolve the issue. You might suggest that we leave the disagreement to the side for now, and perhaps address the individuals concerned within a private situation where they may feel more comfortable expressing their concerns. Finally, compromising is an option when other options fail- it's not often a great option as both parties 'lose'. However, if you've tried alternative approaches and they're not working then you might have to settle for a compromise. Or simply, the issue is not that important to either party and so it's a quick way to move on.

Key point- there are multiple ways of responding to conflict and, dependent on the importance of the issue and the importance of the relationship, you can begin to work out which approach is most appropriate (**Box 11a and 11b**).

Box 11a: How would you respond to these real conflict situations within planning workshops?

Scenario 1: *In a workshop on the Florida panther, geneticists with expertise documented evidence for inbreeding depression. This was hotly denied by a field ecologist present. The parameters in dispute were considered to be a critical determinant of population dynamics.* ***What conflict mode would you have chosen?*** (See Box 11b, over the page for likely most appropriate options)

Scenario 2: *In a population modelling exercise two biologists with opposing data, using legitimate methods and who had equal expertise disagreed on the value of a parameter of the modelling. Neither felt that the difference in this value would cause a major shift in results. The group was getting restless and wanted to complete the modelling.* ***What conflict mode would you have chosen?*** (See Box 11b, over the page for likely most appropriate options)

Scenario 3: *In a workshop on Tana River primates, Kenya, two field biologists presented very different estimates of population size. One was a Kenyan male, the other was an American female. This was a critical dimension of the modelling process.* ***What conflict mode would you have chosen?*** (See Box 11b, over the page for likely most appropriate options)

Box 11b: How would you respond to these real conflict situations within planning workshops? Answers

Scenario 1: *Assuming the geneticist can provide evidence to back up their claim then the most appropriate response would be to force the decision in favour of the geneticists. You might want to give the field ecologist the opportunity to present alternative data, but if there is evidence for one view and not for the other, then you are likely to have to force the situation. The downside is that you are likely to upset the field ecologist and the relationship between them and the geneticists might be undermined.*

Scenario 2: *As neither biologist feels the difference in the data would make much different to the model, compromise is the best option; meet half-way. If you favour one set of data over another you risk undermining the relationship between the individuals, and there is no need to do this as the issue is not important. Collaboration is possible but as this is likely to take time, and the issue is unimportant, this would probably be time poorly spent.*

Scenario 3: *You're going to have to encourage collaboration! The issue is important and the relationship between these individuals may be important. The downside is that it could take time to achieve a resolution.*

4.2.2 From positions to needs

In some situations, you may experience individual stakeholders 'pointing the finger' at others in the group (or potentially others who are not at the workshop at all!) and in some ways blaming them for some underlying issue. For example, farmers might claim that, *"Park managers still haven't put up a fence to stop predators coming out of the park",* or NGO staff may state that, *"fishers are illegally catching turtles and need to be educated to stop".* Both of these statements are 'position statements', stating what someone else needs to do and giving only one solution. Position statements are counter-productive because:

- They can encourage conflict and reduce agreement because they involve telling another group or individual what they need to do; and
- They usually only provide one solution, and so don't give much room for alternatives to be considered, particularly when the first solution given is often not one based on deep thought!

The easiest way to get behind the statement is to ask the simple question, "Why?" What we are trying to understand (and to help others in the group to understand) is what the underlying cause of the statement is, and push the individual back from making a position statement to describing their problem or 'need'.

Needs are harder to dispute and easier for people to accept. While government officials may react negatively to statements that they have to find ways to stop people over-fishing (they may already feel they are doing this!) they are likely to be more open to listening to the concerns of fishers who say that they need to have a sustainable livelihood or need to be able to catch enough fish to feed their families. By asking *why*, we can encourage stakeholders to express their underlying needs and concerns and in so doing build a shared understanding of the situation and also build relations with other stakeholders.

Helpful 'needs statements' are composed of two parts: *what* is needed and *why.* For example, the needs statement behind the initial farmer position that, "*Park managers still haven't put up a fence to stop predators coming out of the park"*, might be that *'We need to be able to protect our livestock from predation by animals from the park so that we can maintain our cultural identity/income etc.'.* A possible needs statement behind the position that, *"fishers are illegally catching turtles and need to be educated to stop"*, could be that '*We need to reduce turtle catches so that we can maintain a breeding population of adult individuals'*.

Note in each of these needs statements there are two elements that are the opposite of position statements:

- The statement is directed at the individual or group making the statement; and
- There is no solution given, so leaving open the possibility of multiple alternatives to solving the underlying problem and meeting the need.

Particularly early on in a workshop we need to help different groups express their concerns in ways other stakeholders are more likely to accept, so that we are in a better position to form consensus (agreement) over what the root problems are for a given situation and start building shared visions for the future.

4.3 How learning styles can influence workshop participant performance

Imagine you are following a course and you could design it as you would like. How many of you would add in lots of lectures? Who would prefer to have more discussions? Which of you would like to see lots of private reading time built in? Alternatively, think about how you deal with the task of developing a new project. Some of you might prefer to sit down with colleagues and talk through options first. Others might prefer to go away and write a draft and then circulate it for comments. Still more of you might like to work on the draft until you feel it is almost complete before you circulate it. The point is, we all deal with learning and development in different ways. We have different 'learning styles', or tendencies, which influence how we like to deal with new tasks.

There is no shortage of information on learning styles available- type 'learning styles' into Google and you are 'hit' with more than 11 million search results! Our purpose here is not summarise everything that is known about learning style, but to make two key points in relation to your role as a facilitator of group processes:

1) It's helpful to view learning within a 'learning cycle' (Kolb 1984), which recognises four, linked stages, centred around the having an experience and reflecting on it; and
2) Each of us will relate to one or more stages within the cycle more than others, and this can influence how we respond in group decision-making situations, both as a facilitator and as a group participant

4.3.1 The learning cycle

Learning is based on the experiences we have and how we then process these experiences (Kolb 1984). Learning follows a four-stage process of experiencing, reflecting, conceptualising and testing (**Figure 23**). It's a cycle and you can enter it at any stage, BUT to be most effective you need to go through all four stages.

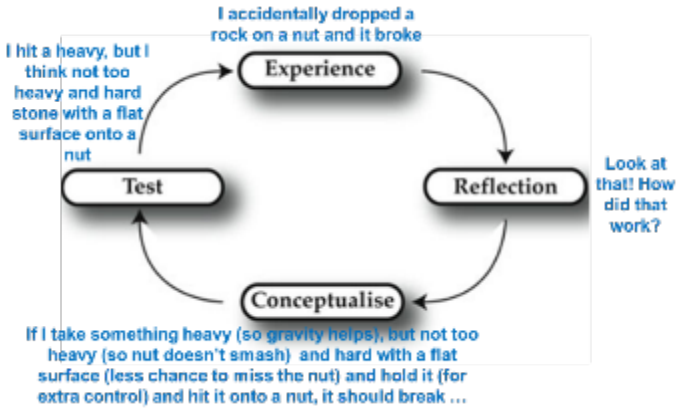


Figure 23. Kolb's Learning Cycle (Kolb 1984) with example

4.3.2 Our learning tendencies

Although, according to Kolb's theory, you must go through all four stages to achieve the most effective learning, the reality is we all feel more or less comfortable at different stages in the process, and so have tendencies to dwell on certain points and speed through others. These tendencies come from our response to two sets of variables, viewed along two axes, known as the 'processing continuum' and the 'perception continuum' (**Figure 24**).

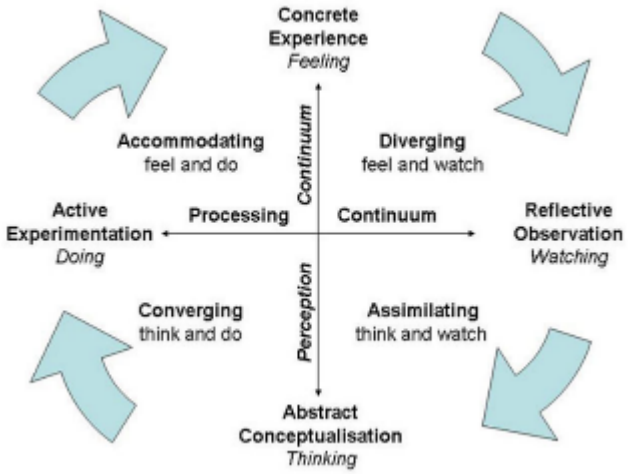


Figure 24. Learning Cycle axes

Depending on where we sit along these continuums (e.g. from Active Experimentation through to Reflective Observation and Concrete Experience through to Abstract Conceptualisation), we will have a tendency that influences where in the learning cycle we will probably feel most comfortable. These tendencies can be grouped under different learning styles (**Table 12**), with each style possessing particular learning traits that convey certain strengths and limitations.

What does this mean for you as a facilitator of conservation planning processes? Firstly it is helpful to reflect on your own learning style as this may influence where you encourage groups to spend more or less time within a group decision-making process. If, for example, you are more of a 'diverger' you may naturally feel more comfortable guiding groups through phases of idea generation and brainstorming and may be tempted to rush through or be less clear on the process of

evaluating alternative strategies and actions, or in helping groups reach a conclusion to a discussion. If you know this about yourself then you can prepare for it by spending more time developing the tools you might use during these less comfortable phases for you (as a support for you and the group) and also recognising that at these points in the process you might feel less confident or want to move through them quickly, and so try to discipline yourself to hold back!

The second reason why understanding learning styles is helpful as a facilitator is that, if you do know or begin to recognise the learning styles in group members you are facilitating, you can help them to either hold back or move forward sensitively. You may reflect that their reluctance to dwell on a task or desire to spend more time on it might not be because it is helpful for the group, but because they simply either relate to or don't relate to a given particular stage in the process.

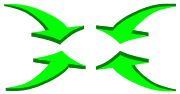
Learning style	Quadrant on the learning styles axes	Strengths	Limitations
Diverger 	Concrete experience + Reflective observation	Strong imaginative ability Good at generating ideas and seeing things from different perspectives Interested in people Broad cultural interests	Tendency to spend too long in brainstorming phase Tendency to brainstorm beyond what is required Problems evaluating alternatives, grouping ideas into categories, summarising key points, arriving at conclusions
Converger 	Abstract conceptualization + Active experimentation	Strong practical application of ideas Comfortable with single correct solutions Prefers to deal with things rather than people Narrow interests	Difficulty going beyond familiar opinions/views on issues during brainstorming Uncomfortable with their being lots of different views Tendency to want to come to “one single possible conclusion” very quickly
Assimilator 	Abstract conceptualization + Reflective observation	Strong ability to create theoretical models Good in assimilating many observations into an integrated explanation Concerned more with abstract concepts than people Want logical theories	After a while, difficulty to continue actively listening to others because too busy looking for the patterns and integrated explanations As facilitator, too involved with the rational issues of the workshop, not enough with the interpersonal sides
Accommodator 	Concrete experience + Active experimentation	Great at doing things More of a risk taker Perform well when required to react rapidly Solve problems intuitively	Tendency to want to jump straight to actions without spending enough time analyzing the issue, setting objectives etc. Although at ease with people, may be seen by others as impatient or pushy or “know-it-all”

Table 12. Four Learning Styles and their relative strengths and limitations

4.4 Additional stakeholder analysis tools

Earlier in the guide we considered how to engage with stakeholders, and provided an example of a stakeholder analysis matrix to help sort stakeholder groups into levels of importance to be included within a workshop. There are multiple tools you can use do this, each designed to elicit different sorts of information and detail. If the priority is to understand the likely specific interests of each stakeholder group, then developing a table similar to that in **Figure 25** might be more appropriate.

Stakeholder group	Likely interest of the stakeholder group in the project	Likely impact of the project on stakeholder group (+/-)
e.g. Subsistence farmers	Access to suitable farm land	-
	Cultural identity	+
e.g. Park managers	Reducing habitat fragmentation	+
	Reducing over-exploitation	+
e.g. International NGOs	Conserving a threatened species	+

Figure 25. Potential stakeholder table for proposed new Protected Area to conserve a threatened species (adapted from DFID 2003)

In this tool, stakeholders are listed down the side then the group is asked to define the various interests of each stakeholder and whether or not the project is likely to impact on each interest positively or negatively. This also helps workshop organisers to identify how stakeholders might perceive the project and therefore how to approach and engage them.

A third way of separating out stakeholders is to develop a Readiness and Power Matrix (**Figure 25**). This is useful when considering not only how stakeholder groups might perceive the project now but also encourages thinking about where we would like to move them to in their acceptance of the project. In this example the three stakeholder groups listed here differ in their perceived current readiness for the project (or acceptance of it) - denoted by an O- and also in where project leaders would like to shift them to- denoted by X. Likewise there are differences in their perceived power to influence the project.

Stakeholder group	Readiness (Low to High)			Power (Low to High)		
	LOW	MED	HIGH	LOW	MEDIUM	HIGH
e.g. Subsistence farmers	**0**	**X**			**X**	
e.g. Park managers		**0**	**X**			**X**
e.g. International NGOs			**X**	**X**		

Figure 26. An example stakeholder Readiness and Power matrix (modified from DFID 2003)

In situations where more information is both available and/or required about potential stakeholder groups- e.g. when plans are revisited during subsequent planning cycles- a more detailed approach can be used, such as the one developed by the IUCN SSC Cat Specialist Group (Breitenmoser et al 2015; **Figure 27**).

Stakeholder	Interest/ Motivation	Relationship	Support for the project	Influence/ Impact	Potential conflicts	Project involvement
e.g. Subsistence farmers	Access to suitable farm land	History of clashes with National Park Dept.	Currently low as wary of outsider motivations	Medium	Particular conflict over access to water for livestock	Developing a joint vision
e.g. Park managers	Proposed National Park fits within existing national plans to increase protected areas	The lead agency involved in the project. Historically adopted 'top down' approach to interactions with local farmers	Highly supportive	High	Potential conflict over gaining access to park for intensive species management due to laws in place	Should be included as part of project planning group
e.g. International NGOs	Supportive of any action which conserves target species	No prior involvement with other potential project partners in this part of the country	Highly supportive, as long as protection accompanied by species-specific conservation interventions	Low	Potential conflict with Park management if intensive species management actions are not permitted due to protected area legislation controlling access	Particularly helpful to have them involved in identifying strategies and actions

Figure 27. Detailed stakeholder analysis table (modified from Breitenmoser et al 2015)

4.5 Additional problem solving/ threat analysis tools

There is a range of problem-solving tools available to facilitators to help then guide groups during the threat analysis stage of a planning workshop. These tools vary in their complexity and extent to which they will surface information and help stakeholder groups identify how factors are connected (**Figure 28**).

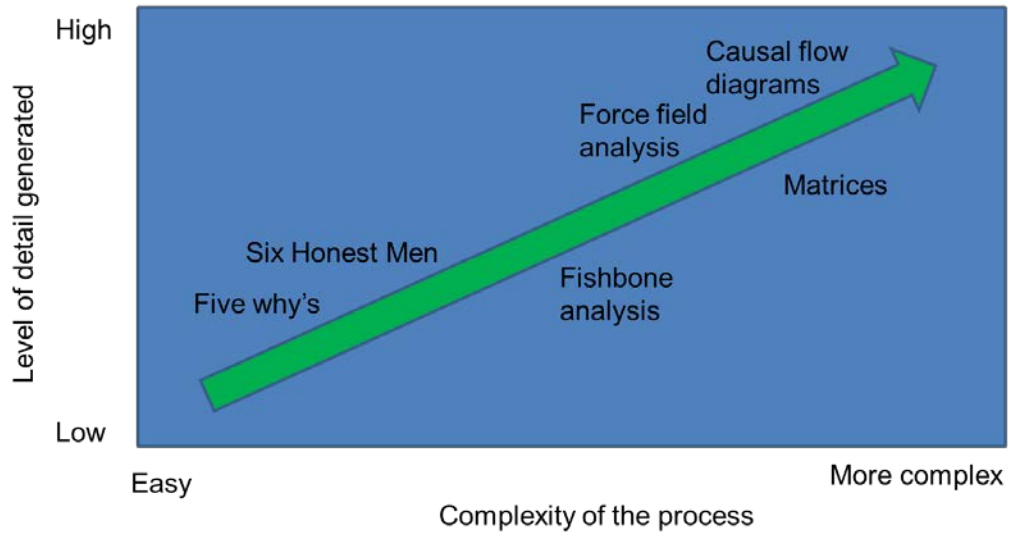


Figure 28. Example problem-solving tools and their level of complexity

4.5.1 Five 'Whys'

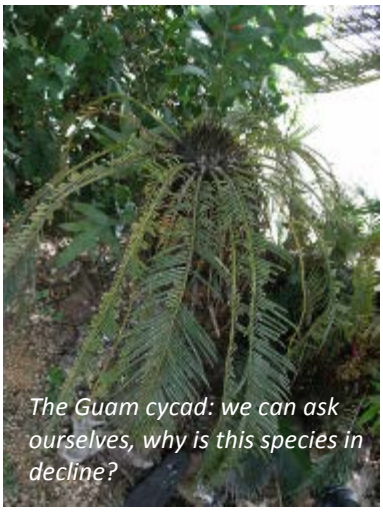
This is a very simple and effective tool for 'digging' into a problem to understand what might be driving it. It ensures that groups seek to deal with causes not symptoms (**Box 12**). The process involves asking working groups to firstly identify a problem or issue of concern. Then ask them to:

(i) Clearly state what the problem/issue is;

(ii) Ask why is this problem occurring?

(iii) Ask them again…why is that reason/problem occurring?

(iv) Repeat the process through a sequence of 5 'whys'. By the 5th 'why' the group should reach the root cause



The Guam cycad: we can ask ourselves, why is this species in decline?

Box 12: Applying the 'Five why's' to the problem of cycad declines, Guam

The cycad Cycas micronesica *occurs in Micronesia, the Marianas Group and the western Caroline Island. Plants occur on Palau Island and on Guam and Rota Islands of the Marianas group. In Guam and Rota the populations have been in steep decline, and it's getting steeper! So what is going on?*

Process: *We can state the problem, in this case projected declines in the Guam population and ask ourselves a first why? This is likely to highlight the immediate reason for the problem, in this case high adult and juvenile mortality. Why this is occurring helps is us focus in on the reasons for this mortality, which could be linked to poor plant health and failure of leaves to regenerate. A further why can highlight what is causing the leaf damage, and again, why, can help us identify evidence we have, in this case from a reference population in the north of the island where a particular invasive cycad mite reached, with devastating consequences. Asking why one more time could help to surface information or hypotheses as to what might have caused the introduction in the first place.*

Whether you ask 3,5, or 7 why's, the key is to keep digging until you feel you have surfaced all available information to get to the root cause.

4.5.2 Six Honest Men

Based on the Kipling poem, this tool encourages groups to consider some questions in order to test any assumptions or ambiguities in a problem statement. If you have a problem, you should consider: *What, Why, Who, Where, When* and *How?* A combination of these questions (and variations upon each) will help to clearly frame the problem (**Box 13**).

Box 13: Applying the 'Six Honest Men' to the cycad again

Rather than simply asking a working group to explain 'why' the cycad might be in decline we can ask them a broader set of questions to deepen their understanding of the problem.

For example:

What is happening?	*Population decline*
Who involved?	*Adult and juvenile plants*
Where?	*Rota Island and Guam*
When?	*Decline began mid-2000s*
How?	*Mature leaves dying back with poor regeneration*
Why?	*Die-back coincides with arrival of multiple invertebrates, in particular Cycad scale mite*

'Six Honest Men' encourages working groups to look at the problem of species decline from multiple angles.

4.5.3 Fishbone analyses

This tool is similar to a mind map, in which you encourage groups to brainstorm ideas of what might be impacting on a problem (e.g. a species in decline) around some pre-determined groupings. Common and groupings include: People, Habitat, Invasive Species, Resources, though others might also apply given, for example, the types of threats you're having to consider, such as disease or pollution. The technique allows team to share ideas which are structured onto a diagram **Figure 29**).

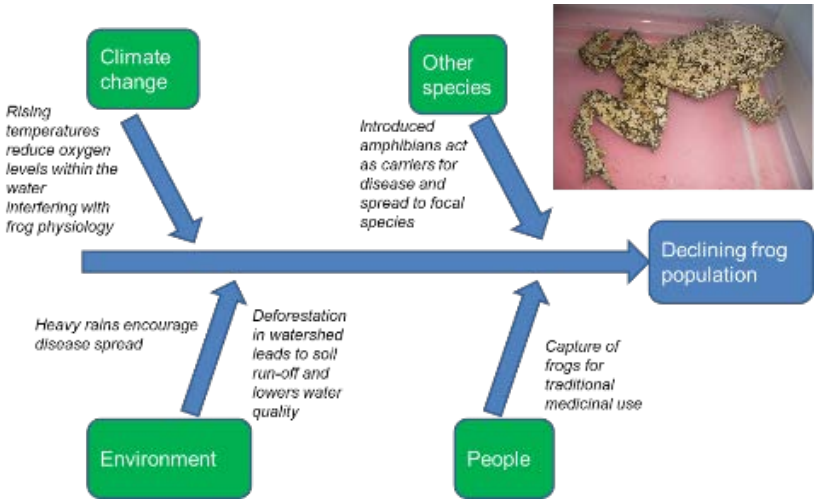


Figure 29. Illustrative fishbone analysis to describe some of the threats driving the decline of the Titicaca water frog *Telmatobius culeus*.

The steps involved are as follows:

1) First write up the problem statement on the right of the flipchart;
2) Then decide on your cause categories, in this case, people, Environment, Other Species, and Climate Change
3) Ask the group to individually write possible causes (of the problem/effect) against each of the cause categories and write (or add individual 'post-its') on the wall;
4) Remove any duplicates and batch the causes under agreed categories;
5) The causes can then be further broken down a further level (sub branches off the bone) by asking *"why?"* each cause can happen.
6) Continue to break down the fishbone until all of the root causes are identified

Once the group has broken down the ideas for the various causes they can begin to discuss and agree preventative actions, who will be responsible and when/how progress will be reviewed. Fishbone analyses are useful in helping to begin to see how multiple threats might work together to drive a species into decline.

4.5.4 Force field analysis

With a force field analysis rather than starting off with the problem statement, you ask the group to identify what positive change they would like to see happen, such as an increase in the population size of a given species. The next step is to identify what factors might 'restrain' or reduce the likelihood of this positive change occurring (the restraining forces). You then repeat the process for 'driving forces' or factors which could accelerate positive change. Neither of these forces are about management actions that could be taken to improve the situation; they are simply statements of what might happen *naturally* within the system to either improve or deteriorate the situation.

Identifying restraining and driving forces as a group can be very powerful, as people bounce ideas off one another and encourage each other to think more creatively about what change might occur (**Figure 30**).

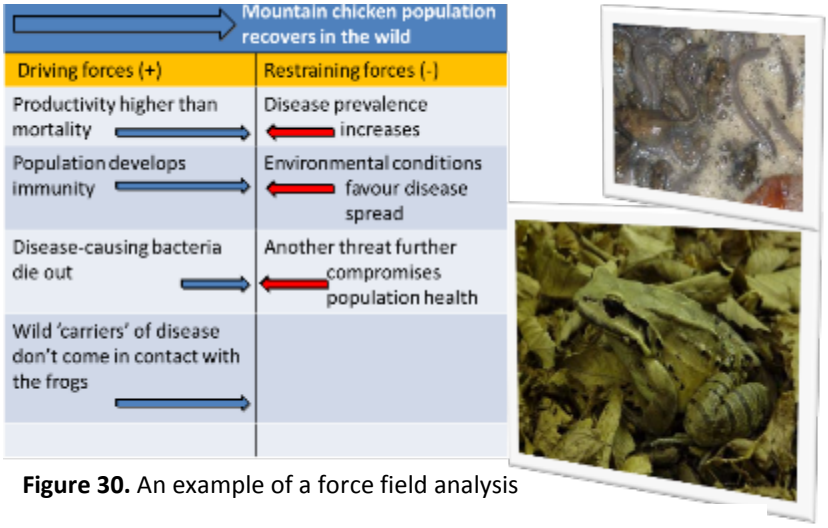


Figure 30. An example of a force field analysis

With a force field analysis groups can go further to begin to hypothesise about the relative strength of each force, and the group's ability to manage it. To do this group's you can explain to the working group the following steps:

1) Decide on a 1-5 rating for each force (e.g. 1 being a relatively weak force; 5 being a very strong force);
2) Discuss and agree their ability to affect/ influence that force on a scale of a rating 1-10; (e.g. 1 = very little ability to influence and 10 being a force the group feels they could greatly influence);
3) Multiply the force strength by the ability to influence. High numbers denote 'low hanging fruit'; things which can be done quickly for fast results.

When thinking about how groups might move from understanding the problem with a force field analysis through to identifying management strategies or action, it is generally better to encourage them to concentrate on eliminating or reducing restraining forces – this will give natural momentum to the existing driving forces and make the change more likely to happen.

4.5.5 Using a matrix to look for patterns

A matrix can be helpful where a group is trying to look for patterns or relationships between factors (**Box 14**). To apply a matric approach to understanding the underlying causes of a conservation problem, you guide groups through the following steps:

1) Separate elements of a problem
2) Categorize information by type
3) Compare types of information
4) Compare pieces of information of the same type
5) See patterns among the information

Box 14: Using a matrix to understand decline in the fictitious 'Pink Rail'

Let's imagine there is a species called the 'Pink Rail', a bird from a Pacific Ocean island chain. There are 3 pops of the species distributed through an island chain. Human populations have established on islands A and C. Strangely only the population on C utilises pigs which free range. Pigs were also introduced to island B but rats have ended up on all 3. Only the rail population on A is stable both of the others are declining. ***Why is the rail population declining on B and C?***

Some people may be able to see a pattern emerging just from the text. For many of us though, we need to re-organize the information to see what is going on, and this is where a matrix can help… Let's start by pulling out the elements of the problem.

- *The species exists on three islands- A, B, C*
- *The factors impacting the populations on A,B,C are:*

  -stability of the rail population

  -presence of pigs, humans and rats

By placing these elements onto a matrix, and then adding in what is happening to rail population under each scenario, we can begin to see a pattern. In this case, it is clear that only when pigs are present that the rail population is in decline.

ISLAND	Rail POP STABILITY	PIGS	HUMANS	RATS
A	+	-	+	+
B	-	+	-	+
C	-	+	+	+

4.5.7 Deciding which problem-solving tool to use

The problem-solving tools outlined above are a small number of a range of tools that have been developed to help groups understand problems, in this case to analyse the threats driving a population down. Knowing which tool to use for a given situation is going to come with experience. However, by asking yourself a few simple questions you can help identify which tool might be most appropriate for the working group you are facilitating (**Table 13**). There are also no rules about how you must apply each tool; sometimes it might be helpful to use a combination of tools, perhaps starting with 'Five Whys' (to help the group to begin surfacing information about the problem) then moving into a fishbone analysis, force field analysis or causal flow diagram.

Factor	**Conditions under which each tool is more appropriate to use**						
	Five Why's	Six Honest Men	Fishbone analysis	Forcefield analysis	Matrix	Causal flow Diagram	Mind map
Problem complexity	LOW	LOW	MEDIUM	MEDIUM	MEDIUM	HIGH	MEDIUM
Group maturity	LOW-HIGH	LOW-HIGH	MEDIUM-HIGH	MEDIUM-HIGH	MEDIUM-HIGH	MEDIUM-HIGH	LOW-MEDIUM
Time constraints	LOW-HIGH	LOW-HIGH	LOW-MEDIUM	LOW-MEDIUM	LOW-MEDIUM	LOW	HIGH

Table 13. Factors influencing suitability of some of the different problem-solving tools described.

4.6 Planning for risk

4.6.1 Planning protection

However well workshop participants plan their conservation interventions, we cannot control the system and our knowledge of it will remain limited. Uncertainty will remain. One way of thinking about uncertainty is to determine what risks might impact on the project and their relative likelihood and severity. 'Plan protection' is a helpful additional step that facilitators can consider including in the last phase of the planning workshop, assuming there is time to do so!

Plan protection is a thinking tool to help surface these risks and begin to identify additional actions that would reduce the likelihood of a risk becoming a reality ('mitigation measures') and those which would reduce the impacts should the risk occur ('contingency measures') (**Box 15**).

Box 15. Plan protection process

Plan protection is a process that is applied once you have agreed on a set of actions designed to realize particular objectives. The steps are laid out as follows:

1. *List the proposed actions designed to achieve objectives*
2. *For each action identify the associated risks*
3. *Determine the likelihood of the risk becoming a reality (this could be qualitative- Low, Medium, High etc.- or quantitative/ categorical- e.g. 1= Low 5= High)*
4. *Determine the severity of the risk becoming a reality (again identify the level of severity)*
5. *Select priority risks to focus on (e.g. those with high likelihood and high severity assigned)*
6. *For each priority risk identify additional actions that could be built into the plan to reduce the likelihood of the risk becoming a reality (mitigation measures)*
7. *Then identify what additional actions you could have prepared to be put into practice, should the risk still become a reality, to reduce its severity on the project*
8. *Incorporate the mitigation measures identified back into the plan so you now have additional actions to take (which will require their own resourcing etc.) which are designed to 'protect' your plan from the most important risks. Contingency measures remain in the plan but are only put into practice should the risks become realities.*

Here is an example for risks associated with the conservation translocation of an unnamed threated species:

Actions (examples)	**Possible risks**	**Likelihood (1-5, 5= high) (L)**	**Severity (1-5, 5= high) (S)**	**Total risk score (L X S)**	**Mitigation measures**	**Contingency measures**
Identify founder stock	Unable to identify sufficient stock within local *ex-situ* community	3	5	15	Increase breeding output of stock within local *ex-situ* facilities in advance of release plan	Secure permissions from international *ex-situ* community to access more stock if required
Transport founders to release enclosure	Unable to secure permits for transport	2	4	8	LOWER PRIORITY RISK- JUST MONITOR	
	Animals injured in transport	3	5	15	Test-run the transport measures with non-threatened species to ensure fit for purpose	Vets on stand-by to intervene if required during transport
ETC.	ETC.					

POSSIBLE ADDITION: T*here is often uncertainty around the likelihood or severity of particular risks becoming realities. One further step that could be incorporated into the above would be to include the range of likelihood and severity of impacts for each risk, based on the opinion of those developing the plan. You could then show the mean severity/ likelihood and the range for each risk. This would allow working groups to both see where greatest risks were and also where greatest uncertainty was. Depending on their level of comfort with uncertainty, they may then decide to act on particular risks to identify mitigation and contingency measures.*

As the facilitator of a plan protection process your role is to explain the process and then encourage the group to work through completion of each column (ideally on a flipchart or some other means for all to see the information added). As outlined in **Box 15**, it might also be helpful to encourage the group to either individually or collectively identify their level of uncertainty (or variation) around the likelihood and severity for each risk. In this way the group can both see high severity or likelihood risks *and* those risks for which there is the largest range in opinion over the risk score (a measure of uncertainty). The group can then decide which risks they feel are the priority ones to mitigate for.

Appendix I CPSG Workshop Checklist (draft)

Schedule (in weeks)

-26	•CPSG is engaged
-24	•Aims of workshop are agreed with organisers
-22	•Likely key issues are agreed
-18	•Potential participants prioritised and agreed (with their attributes documented)
-17	•Dates, venue and duration are agreed
-16	•Invitation letter is agreed and sent out
-16-12	•Participants register and receive workshop details
-12-10	•DRAFT program is agreed
-12-10	•Potential presenters are approached and engaged
-12-10	•Potential "issue" leaders are approached and engaged
-8-6	•Briefing materials are developed
-8-6	•Models and/or other tools are developed
-4	•Final workshop info is circulated (logistics)
-4	•Final briefing materials are circulated
-2	•Workshop materials are assembled (flip-charts, reference material etc)
0	•Workshop held, editorial team identified, ongoing contact point agreed
4	•DRAFT report circulated
8-12	•Final report circulated
26	•Follow-up on progress (with contact point)
52	•Follow-up on progress (with contact point)
104	•Follow-up on progress (with contact point)

Appendix II CPSG Working group roles

Self-managed leadership roles

Each small working group manages its own discussions, data gathering, time, and report production. Here are brief descriptions of the various roles to be played by different people in the group so that you can function as a group during the workshop. Leadership roles can be rotated; divide the work as you wish. Remember, however, to assign these roles at the beginning of each working group session.

Discussion leader

If a group does not have a facilitator, and so has to assign someone to oversee group performance from within the group, then identifying a 'discussion leader' can be a helpful second option. The Discussion leader assures that each person wanting to speak is heard within the time available. They keep track of discussion using flip charts and keep the group task front and center at all times.

Flip Chart Recorder

Again this role may be played by the facilitator if present, or the discussion leader if not. However, it is sometimes helpful for the discussion leader to have someone else to record the discussion on a flipchart. If so, this person's role is record group ideas on a flipchart using brief phrases to provide group memory and visible record of issues, ideas, and discussions. They should check with each person that the phrase is an accurate representation of their contribution to make sure ideas are captured accurately.

Computer Recorder

This role is a crucial one to ensure the final workshop report is complete and produced rapidly after the workshop. Their role is to keep track of the group discussion using a computer. This should not simply be a verbatim recording of the flip chart contents, but should also include a synthesis of the discussions accompanying the salient points written on the flip charts. It is important for this person to ask participants to briefly restate long ideas so that they can be accurately captured.

Timekeeper

Ensuring working groups keep to time is important to ensure all tasks are completed and that plenary sessions can begin with all the working groups present. The timekeeper's job is to keep the group aware of the time remaining for each working group session.

Reporter

Their role is to deliver the working group report in the plenary sessions to follow. It is very important that this role be assigned at the beginning of each session so that the person can prepare a report accordingly.

Appendix III Example scope, problem statement and output sheet for workshop

Below is an extract from a planning workshop introduction document for a Scottish Wildcat project facilitated by CPSG in October 2018.

SCOTTISH WILDCAT WORKSHOP

Workshop scope

Review and refinement of immediate (winter 2018) and reflections on medium-term (to 2020+) priority conservation actions for the Scottish wildcat *Felis silvestris* , in the light of a recent external evaluation of wildcat conservation activities in Scotland and the implementation of the Scottish Wildcat Conservation Action Plan (2015-2020).

Problem statement

In spring 2018, the SWCAP approached the IUCN SSC Cat Specialist Group with regard to an evaluation of the situation of the wildcat in Scotland and the implementation of the conservation activities under the SWCAP so far. The evaluation concluded that, [DETAILS WITHHELD]. The evaluation recommends re-prioritisation of project actions with enhanced definition around what can realistically be achieved, by when, by whom etc.

Desired outputs

- Agreement around the core findings of the IUCN Cat Specialist Group evaluation within the partnership, and that conservation efforts should still continue to restore wildcat to Scotland
- Review (and potential re-prioritisation) of existing priority actions within the existing plan, in the light of the external evaluation
- Recommendations for steering group over priority work for field teams during the winter of 2018/19 and mid-term priority actions to 2020+ (taking into account the longer term 'vision' for wildcat in Scotland)