

**Special
Issue!**

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CAT news

How to save the cat...



**Cat conservation compendium – a practical guideline
for strategic and project planning in cat conservation**



CATnews is the newsletter of the Cat Specialist Group, a component of the Species Survival Commission SSC of the International Union for Conservation of Nature (IUCN). It is published twice a year, and is available to members and the Friends of the Cat Group.

For joining the Friends of the Cat Group please contact Christine Breitenmoser at ch.breitenmoser@kora.ch

Original contributions and short notes about wild cats are welcome **Send contributions and observations to ch.breitenmoser@kora.ch.**

Guidelines for authors are available at www.catsg.org/catnews

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Editors: Christine & Urs Breitenmoser
Co-chairs IUCN/SSC
Cat Specialist Group
KORA, Thunstrasse 31, 3074 Muri,
Switzerland
Tel ++41(31) 951 90 20
Fax ++41(31) 951 90 40
<u.breitenmoser@vetsuisse.unibe.ch>
<ch.breitenmoser@kora.ch>

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APC	Adaptive Project Cycle
Cat SG	IUCN/SSC Cat Specialist Group
CCC	Cat Conservation Compendium (this document)
CMP	The Conservation Measures Partnership
DC	Drafting Committee
IC	Implementation Committee
IUCN	International Union for Conservation of Nature
LFA	Logical Framework Approach
LogFrame	Logical Framework (Matrix)
M & E Plan	Monitoring and Evaluation Plan
NAP	National Action Plan
NGO	Non-governmental Organisation
OC	Organisation Committee
RCS	Regional Conservation Strategy
Red List	IUCN Red List of Threatened Species™
SCP	Species Conservation Programme
SCS	Species Conservation Strategy
SMART	Specific, Measurable, Achievable, Realistic, Time-bound
SPC	Strategic Planning Cycle
SR	Status Review
SSC	Species Survival Commission (an IUCN commission)
WCS	Wildlife Conservation Society
WWF	World Wildlife Fund
ZOPP	Zielorientierte Projekt Planung (target-oriented project planning)

I. Introduction

Cat conservation faces a number of specific challenges as a consequence of biological features of the felids and their particular relations with humans. Cats are admired, feared and hated for their beauty, supremacy and ferocity. Some of the cats are great cultural symbols and may even have a ceremonial value, but the living cats are mere mystic shadows in the forest; and some of the smaller species are nearly unknown even to local people. The high degree of specialisation that the cats have acquired during their evolution makes them vulnerable to environmental changes; 16 of the 37 cat species assessed in the IUCN Red List of Threatened Species™ 2008 (www.iucnredlist.org) are threatened. Most cats are solitary and live at low densities (compared to their prey of the same size category); therefore viable populations need extended areas of suitable habitat with sufficient prey. All felids are mandatory hunters, typically depending on a rather narrow prey spectrum from one trophic level. The hunting tactic is adapted to the main prey and the habitat. The predatory lifestyle brings cats into conflict with humans: they compete for game, but cats also kill livestock from chicken to cattle; and some large cats are even dangerous to humans. All this makes cat conservation a complex endeavour. Seldom is it enough to grant a cat species legal protection to secure its survival. Normally, cat conservation includes habitat preservation, prey management, conflict mitigation, and law enforcement over large areas and for many years. The Species Survival Commission SSC of the International Union for Conser-

vation of Nature IUCN has published two documents outlining the participatory process in conservation conceptualisation and planning: (1) Strategic Planning for Species Conservation: A Handbook (IUCN/SSC 2008a), and (2) Strategic Planning for Species Conservation: An Overview (IUCN/SSC 2008b). The Cat Conservation Compendium CCC is based on these two publications. The CCC is a short document, with a minimum number of references, meant to provide a checklist-like step-by-step guidance for the development of a cat conservation programme. This document focuses primarily on the planning process (part II). We present here an idealised approach for strategic cat conservation planning for the situation where we first develop an international plan, the Regional Conservation Strategy, subsequently National Action Plans, implemented through a series of conservation projects (part III). It goes without saying that the approaches and methods presented here must be adapted to the situational circumstances. The important point valid for all situations is that a transparent and participatory planning process does not only prevent the loss of time and funding, it furthermore helps building partnership and getting the buy-in from stakeholders and local people. In so far, the planning process is an integral part of the conservation itself! Users of the CCC (downloadable from the Cat SG website www.catsg.org) may have to adopt the process to their particular situation. We welcome any feedback on the usefulness of the CCC in order to improve the next edition of the compendium!



Fig. 1. Family going on a mountain hike. The questions stand for decisions to be taken at important milestones of the journey. As in conservation planning, the careful preparation is a precondition for the success of the journey (Drawing K. Breitenmoser).

II. How to save the cat – strategic cat conservation planning in six steps

Conservation planning can be visualised as a family going on a mountain hike (Fig. 1). The family has to make a number of decisions to prepare and to complete the journey, and these questions can be translated into steps in planning and implementing cat conservation actions (Fig. 2):

1. *Shall we venture on a hike together?* – Preparing the ground;
2. *Where do we start from?* – Status Review;
3. *Where do we want to go?* – (regional) strategic planning;
4. *How do we get there?* – (national) action planning;
5. *Ready, steady, go!* – Implementing a plan;
6. *Are we on the right way?* – Monitoring and Evaluation.

Strategic planning for species conservation according to IUCN/SSC (2008a, b) should be participative, transparent and informed by the best available science. To be transparent and to develop the conservation plan in a participatory process, all partners must understand the process from the start to the end and know their tasks and responsibilities. After the decision to venture on a journey together, the route needs to be agreed on. This is often the most difficult part of the planning process, but an indispensable prerequisite for a successful journey. The purpose of the whole process is not to have a plan – it is to implement effective conservation measures and to reach the common destination. But careful planning in a participatory process is the first step for successful conservation.

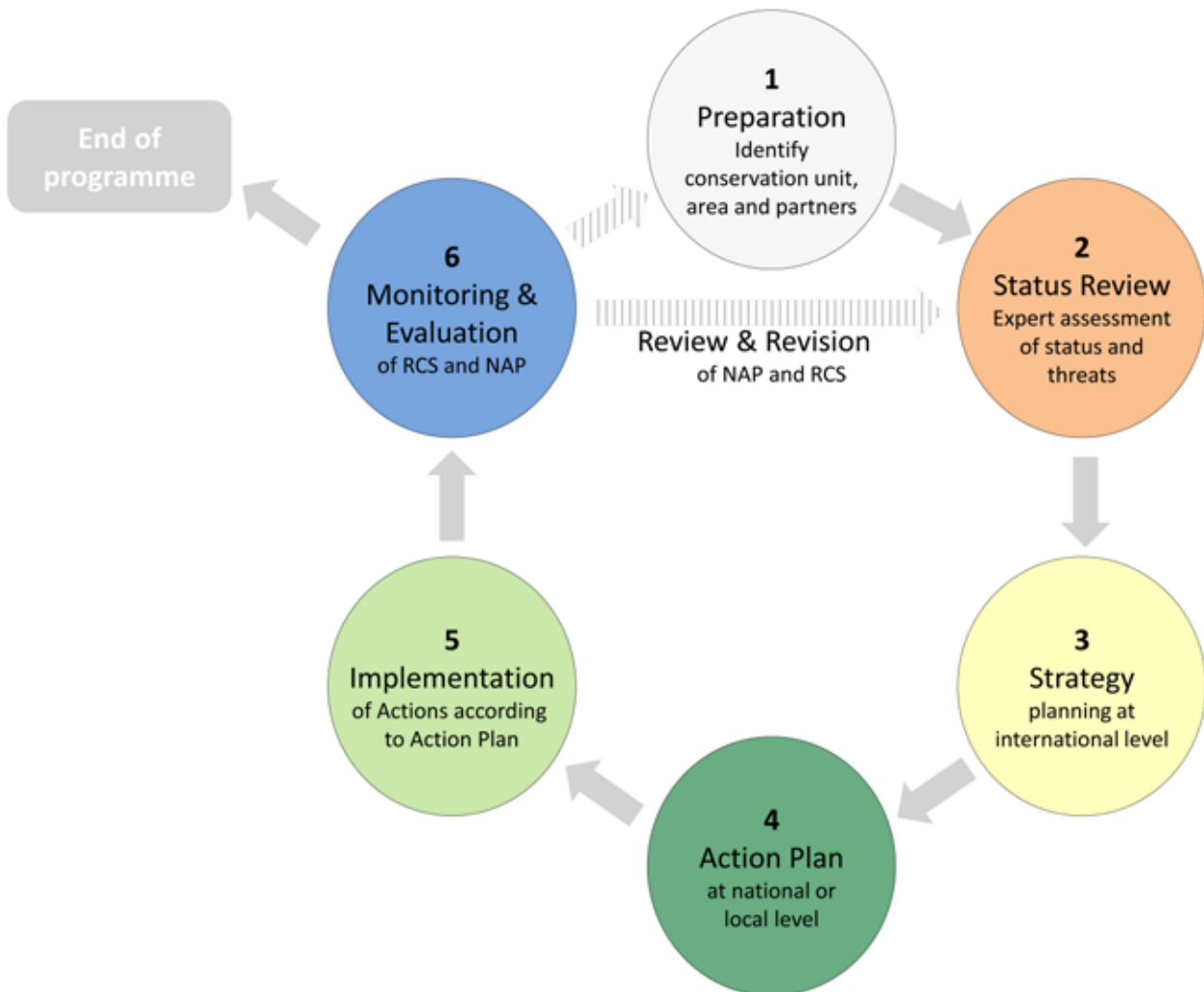


Fig. 2. Strategic Planning Cycle for species conservation projects. The actual planning process (done in participatory workshops) is covered by Points 3 and 4. However, the preparatory steps (Points 1 and 2) are important for sensible planning. The ultimate goal of the whole procedure is the implementation of conservation actions (Point 5), but these will only be successful if properly planned and subsequently monitored and evaluated (Point 6).

The aim of a Species Conservation Strategy (SCS; IUCN/SSC 2008a, b) is to secure the long-term survival of a species, a subspecies or another significant conservation unit in form of a viable (meta-) population in its entire distribution area. The Strategic Planning Cycle (Fig. 2) condenses the different phases of a conservation programme into six distinct steps. These should be repeated until the Objectives are fulfilled and the Goal is reached

1. Shall we venture on a hike together? – Preparing the ground

Several important issues have to be clarified before starting the planning process: We need to (1) delineate the conservation unit (taxonomic entity and geographic scale), (2) build partnerships, (3) identify stakeholders, (4) secure the support from the relevant authorities and a political mandate and (5) agree on processes and procedures and raise the funds needed.

1.1. Identification of the conservation unit: Taxonomic entity and geographic scale

The total distribution area of most cat species is too large for direct practical on-the-ground cooperation under one conservation action plan. But focusing on one local population or one range country alone might neglect over-arching threats (e.g. genetic viability) or important influences from neigh-

bouring areas (e.g. source-sink gradients). From a biological perspective, the scale of the adequate conservation unit is crucial and has consequences for the conservation planning process. The taxonomic or biological entity can be a species, a subspecies, or a metapopulation (consisting of several distinct subpopulations) stretching over several countries, or in certain cases a single population (Box 1). Biologically meaningful conservation units for which strategic goals are being developed should be at least large enough to host a genetically viable metapopulation (for an extended discussion see Breitenmoser, Breitenmoser-Würsten & Boitani 2012). There is no upper limit for a conservation unit; strategic goals might be defined at the level of the global distribution range of a species. However, if the scale is very large and stretches over several countries and cultural areas (hence requiring international cooperation), the planning process may have to be split and organised in several stages in order to allow local people and stakeholders to participate in the process (Box 1). In certain cases – e.g. lions or cheetahs in Africa – it might even be necessary to develop several RCS, which build the common ground for NAPs. On the other hand, if the geographic scale is relatively small – e.g. within one country where all stakeholders share a common language – the strategic and action planning could be merged.

1.2. Building partnership

For a conservation programme to be successful a sincere cooperation between various key players is required:

Box 1. Cat conservation unit: Taxonomic entity and geographic scale

A cat conservation unit (conserved under a common strategic plan) should embrace a significant biological/taxonomic unit, such as a species, a subspecies or a (meta-) population. Depending on the geographic extension of the conservation unit, the planning approach may differ:

1. *Small*: Conservation unit within one administrative region. Strategic and action planning can be merged. This was the case for the Critically Endangered Iberian lynx *Lynx pardinus*, where the whole remaining population occurred within Andalucía, one province in Spain, and where all stakeholders spoke the same language. The entire species distribution range was defined as the conservation unit.

2. *Medium*: Transboundary conservation unit where it is practically not possible to bring local stakeholders from all countries together. General conservation principles and cross-border cooperation are defined in the SCS. Local stakeholders are then included in the translation of the SCS into NAPs for implementation. This was the case for the Endangered Persian leopard *Panthera pardus saxicolor* in the Caucasus, considered to be one metapopulation stretching over six countries and several cultures.

3. *Large*: Extensive international conservation unit (e.g. a continent). Strategic planning is split into several RCS (based on common language, existing management, political situation, etc.), providing a common framework for NAPs. This was for example done for the Vulnerable cheetah *Acinonyx jubatus* in Africa (together with the Endangered African wild dog *Lycaon pictus*), as these species share the range and much of the problems), distributed over 28 countries, including many different languages and numerous cultures. A RCS for eastern and southern and another one for West, Central and North Africa were developed to inform NAPs.

The conservation plans mentioned here are available at the IUCN/SSC Cat SG website (www.catsg.org).

- Experts generate essential information; there is no meaningful conservation without sound scientific understanding;
- Governmental institutions and authorities responsible for legislation and law enforcement provide formal support and guidance; there is no effective conservation without political endorsement, leadership and law enforcement;
- Local people need to coexist with the cats and are likely affected by the conservation programme. Hence they need to support the implementation of measures; there is no successful implementation of conservation actions without involvement of local people and stakeholders.

We call this the Triangle of Conservation. There are many key players and stakeholders (chapter 1.3.), but these three categorical groups have their specific roles and responsibilities. It is important to distinguish between these roles and emphasise their equal importance. Especially experts tend to regard conservation mainly as a rational and scientific exercise based on best knowledge, but in the real world, it is as much an emotional and socio-political process. Human dimension aspects need to be considered throughout the conservation programme, but are especially important in the planning process to secure the support of all partners for the subsequent implementation phase.

Conservation partnership has to be carefully built up over time. Early shortcomings with regard to involvement of local people or relevant stakeholders can result in a lack of support or at least in a loss of valuable means and time. This may lead to a failure of the conservation programme even if, from an academic point of view, the conservation plan was correct.

Creating ownership of the SCS through a participatory process implies early involvement and good communication. At the beginning of the process an Organising Committee OC should be formed that is responsible for identifying, inviting, and consistently informing all partners involved in the pro-

cess. The core of the OC will be the initiators, but the committee should include a member from every country or stakeholder group concerned. The OC identifies the proper facilitator(s). A facilitator should be familiar with the topic and experienced in the process but not be personally involved, i.e. not belong to any of the stakeholder groups. To secure the proper logistical support, cooperation with a local NGO and the relevant government institution (e.g. the wildlife or conservation department of the national Ministry of Environment) is recommended. Big international conservation organisations such as IUCN, WWF or WCS have regional representatives or national offices, which may be able to provide practical help and experience. For example, for the planning workshops for the African lion strategies (Box 1), the Cat SG (mandated by CITES) cooperated with the regional offices of IUCN, WCS, the two regional lion working groups and the wildlife conservation authorities of the host countries. The development of the conservation strategy for the leopard in the Caucasus was facilitated by the Cat SG but locally organised by the WWF Caucasus Programme Office with support from the Caucasus Biodiversity Council.

1.3. Identification of stakeholders

To ensure that a SCS has a good chance of being implemented, all stakeholder groups who can support or who have a possible interest to oppose the conservation of the cat species of concern in the target area should be invited to participate in the planning process. Stakeholders, as defined by IUCN/SSC (2008b) are those who are concerned, have expertise, and/or power in the process. Interest groups may differ from region to region and need to be identified. Typical sectors concerned are governmental agencies (environment, agriculture and forestry, civil engineering, mining), scientific institutions, conservation NGOs, hunters, livestock breeders, tourism organisations, and representatives of local communities and/or local authorities. Groups who are considered part of the problem should be invited to become part of the solution. Generally, even opposing stakeholders prefer to be involved and to have



Preparing the ground for cheetahs, Benin 2008.



Status review workshop for clouded leopard, Thailand 2009.

Box 2. Stakeholder Analysis

A Stakeholder Analysis supports the process of identifying key interest groups and potential partners. One way to do this is the (participatory) compilation of a stakeholder table (template below): the role of stakeholders, their interest/expectation, motivation or benefits, level of support, their relationship to each other, their contribution to achieving the Goal and Objectives, their influence or impact, potential of conflicts, and their possible involvement. This analysis helps identifying partners and opportunities, but also potential conflicts or risks, and appropriate mitigation strategies. Such a table can be compiled by the OC in order to identify potential workshop participants, but should then be revised at the workshop (chapter 1.5, Box 4).

Stakeholder group	Interest/Motivation	Relationship	Support for project	Influence/Impact	Potential conflicts	Project involvement	Comment

a voice in the process than to be left out and have to accept decisions made by others. Some groups may not be interested to participate because they still lack awareness of the conservation problem or trust in the process. However, they must at least be informed and re-invited later. A Stakeholder Analysis can help to identify key interest groups (Box 2).

1.4. Securing political support and mandate

No RCS or NAP will be effective without political endorsement. RCSs and NAPs are often endorsed at ministerial level, sometimes even by the government or parliament. RCSs might even be endorsed by international organisations. The endorsement requirements need to be clarified before starting the planning process. No governmental body will endorse a RCS or a NAP without being given the opportunity to review it and most likely, these institutions also want to be involved in the development of the plans. It is important to clarify the process and the endorsing agencies in advance. Even more, a mandate for the development of a RCS or an NAP from an official institution, e.g. an international organisation or a national governmental institution, will not only facilitate the endorsement, it will also support the subsequent implementation.

1.5. Agreement on process and procedures and securing the funding

The OC has to decide on how to develop the SCS. We recommend developing the SCS in two main steps according to IUCN standards (IUCN/SSC 2008a, b):

1. A technical-scientific analysis of the status of the conservation unit and of the social, political and economic situation, compiled in the Status Review (SR; Box 3; chapter 2) provides input information for

2. A participatory multi-stakeholder workshop (Box 4), where a LFA is used to develop a RCS or a NAP (Box 5; Fig. 3; chapters 3 & 4).

The OC has to organise these two events and raise the needed funds. A Status Review is from an organisational point of view a straightforward process and its budget depends on: (1) How much information is readily available, (2) how detailed the preparatory analyses should be (e.g. whether a habitat modelling exercise is required), (3) whether the experts can provide their time for free or need to be paid, and (4) in which form the Status Review is being distributed.

Organising a SCS workshop is more complicated (Box 4) and can be rather expensive depending on the place, number and travel distances of participants. Participatory workshops using a LFA are most efficient with 20–40 participants. For a range-wide RCS with many countries and interest groups involved, the number of participants often needs to be larger. This considerably complicates facilitation and equal involvement of all participants. In such cases splitting the process must be considered. Range-wide workshops as e.g. needed for the development of the two RCSs for the African lion, implying considerable international travelling, are big and expensive events. A workshop for the development of a NAP can be organised as a modest meeting. However, also NAP workshops often involve a considerable number of participants, as more local interest groups need to be invited.

The development of a RCS for a cat species with a large distribution range is expensive (\$ 50,000 – 100,000 for a RCS and \$ 10,000 – 20,000 for a NAP workshop) and requires a proper fund-raising process with international private and governmental donors. The development of NAPs are often organised and financially supported by national agencies.

Box 3. Status Review

A Status Review provides important background information on the species and its conservation situation within the focus range. It streamlines the knowledge and understanding of the partners and prepares the planning process. A SR contains three main parts: the Status Assessment of the taxonomic/biological entity, the Situation Analysis of the species' (subspecies or meta-populations) environment, and a section about the conservation and management of the taxonomic entity. We are recommending to include the following points, which can either be presented by country or by topics for the whole target region:

A. Status Assessment (species and range)

1. Species (sub-species) taxonomic Information
2. Distribution (geographic range information, potential and current distribution, occupancy, area of extent of occurrence (EOO) and area of occupancy (AOO), distribution map, historical distribution)
3. Population information (current and past trends, estimates, fluctuations, fragmentation, number of subpopulations, reductions, probability of extinction, densities, general information)
4. Habitat (types, requirements and resource needs) and ecology (life history, behaviour, diet, prey species, domestic prey species)
5. Use and Trade (end use, harvest trends, consumptive and non-consumptive use, commercial value)
6. Threats (past, current and potential future threats – Threat Analysis)

B. Situation Analysis

1. Human dimension issues (social and economic situation of the people in the cat's range)
2. Conflicts and public awareness of the species
3. Ecosystem dimension (status and health of the ecosystem in the cat's range, prey population status, prey species distribution, abundance and trend, and domestic prey species distribution and management)
4. Political situation in the cat's range (stability, law enforcement etc.)
5. Policy and Legislation (Legal status of the species)

C. Conservation and Management

1. People and institutions important for the cat's conservation
2. Species functions and values (ecological, cultural, religious, legal, etc.)
3. Current management and research
4. Conservation (projects, status, previous assessments)
5. Recommendations for conservation actions

References

Appendices (Inventory of captive animals or museum collections, maps, pictures etc.)

For the assessment, we recommend to consider the IUCN Red List assessment procedures (www.iucnredlist.org or www.catsg.org). Examples of Status Reports for cats that have been produced as input information for a RCS planning workshop are: Status and conservation of the leopard in the Caucasus (thematic articles; Cat News Special Issue 1), Status and conservation of the leopard on the Arabian Peninsula (standardised reports by country; Cat News Special Issue 2), Status and conservation needs of cheetahs in southern Africa (by country; Cat News Special Issue 3; all available at www.catsg.org). Examples of input documents for a NAP planning workshop are: Lion in Mozambique (Chardonnet et al. 2009) and Lion in Ethiopia (Gebresenbet et al. 2010).

Box 4. Checklist for the organisation of a SCS (RCS or NAP) workshop

1. Build an organising committee with experienced people and local partners
2. Identify the facilitation team of 3-5 people (not necessarily identical with organisers). Facilitators should be independent, neutral and not part of a stakeholder group
3. Identify dates (3–5 days): consider local holidays, elections, climatic conditions, high season, and special events e.g. football and cricket tournaments, etc.
4. Identify participants: consider representatives of national authorities and stakeholder groups
5. Identify locality: accommodation for a given number of people, big meeting room and possibilities for 3–5 working groups
6. Write proposals, make budget, and submit to potential funders
7. Send invitation letters allowing ample time for people in need of a visa
8. Develop workshop agenda: 3–5 days depending if a mapping exercise and Status Review is included or not. The agenda needs to give the facilitation team enough time for preparing the next steps between the plenary sessions
9. Define introductory talks for the species and the process and the respective presenters based on the Status Review
10. Develop facilitator's agenda including backstage work: who needs to do what and when
11. Prepare handouts for workshop participants explaining all steps in the process and the working group rules
12. Assure the necessary infrastructure and material for the workshop: computer(s), projector(s), screen, printer, USB sticks, flip charts, pens, paper, writing cards, pin wall or sticky wall, tape, maps, etc.



Status assessment of all cat species occurring in Iran, Iran 2011.



National Action Plan workshop. Updating of distribution maps for the lion, Kenya 2008.

Box 5. Logical Framework Approach or “Zielorientierte Projekt Planung”

A Species Conservation Strategy (SCS) for any cat species in form of a Regional Conservation Strategy (RCS) or a National Action Plan (NAP) is developed in a participatory workshop process using the Logical Framework Approach (LFA) or “Zielorientierte Projekt Planung” (ZOPP). The LFA or ZOPP is an analytical process and project design method, including Status Review, Stakeholder Analysis, Problem Analysis, objective setting and strategy evaluation and selection, as well as identification of potential risks and opportunities. The LFA is a widely accepted management tool used for improving the performance of interventions. The LFA helps to structure the thinking and facilitates the coherent, logical and succinct presentation of the links between different parts of an intervention. It helps developing strategic elements (Vision, Goal, Objectives, Results and Actions) in a transparent cascade of analytic steps which are summarised in the Logical Framework Matrix (LogFrame). The LogFrame includes the following elements:

Vision	Has a wide scope and represents the ideal situation (desired future state of the species) on a very long term (e.g. 25 years). The Vision is really a “futuristic dream”. It should be derived from a range-wide analysis of the species’ status and a detailed presentation of the long-term range-wide conservation needs of the species (e.g. summarised in the Status Review).
Goal	Represents the ideal situation in the long term (estimated at 10 to 20 years). The plan (RCS or NAP) should contribute to the achievement of the Goal, but does not assume full responsibility for it. However, the Goal must be realistic and measurable. It is linked to the project’s conservation unit and defines its desired status.
Objective	A specific outcome to be achieved by implementing the strategy to address and overcome the problems and threats to achieve the Goal. The timeline is approximately 5 years. Objectives should be impact- and Result-oriented, realistic and achievable within the defined timeframe and budget. Understandable and clear Objectives aid planning and implementation!
Result	Are the standards by which achievement of the Goal and Objectives are measured and judged. Results usually relate to changes in the scope, extent and magnitude of threats (reduction of pressures). They are measurable steps that describe what needs to be accomplished to meet a Goal or Objective. A Result should be formulated as a direct output or outcome of one or several Action(s). Results must be SMART and their achievement is controlled through Indicators. Timeline 3–5 years. (The term Result is here used as a synonym to the term Target in the IUCN handbook for strategic planning in species conservation (IUCN/SSC 2008a, b)).
Action	Are operations with a defined actor (responsibilities), method and schedule to reach a Result, the Objectives and, ultimately, Goal and Vision. Timeline 1-3 years.
Indicator	Are parameters used to measure the achievement of a Result by implementing Actions. An Indicator measures the progress of an Action towards a stated Result. Good Indicators are measurable, precise, consistent and sensitive. They are quantitative or qualitative variables allowing the verification of changes produced by an intervention and reflect changes through time. Proxy indicators are used when change cannot be measured directly. Indicators should be easy to monitor and analyse.

The LFA clearly identifies the problems and challenges to be addressed and defines a logical hierarchy of Actions, Results and Objectives to overcome problems. It includes assumptions about the cause-effect relationship and defines Indicators used for their verification. This methodology enables participants with different backgrounds, value systems and priorities working together towards a general aim, and it translates a common dream – the Vision – into purposeful and specific Actions: The long-term Vision is expressed as a more realistic Goal; the Goal is then split into concrete Objectives (5-8) by considering the Status Review and the Problem Analysis. For each Objective, 1–3 Results and for each Result 1–2 Actions are then defined. Finally, Indicators, actors, methods and timeframes for the Actions are identified.

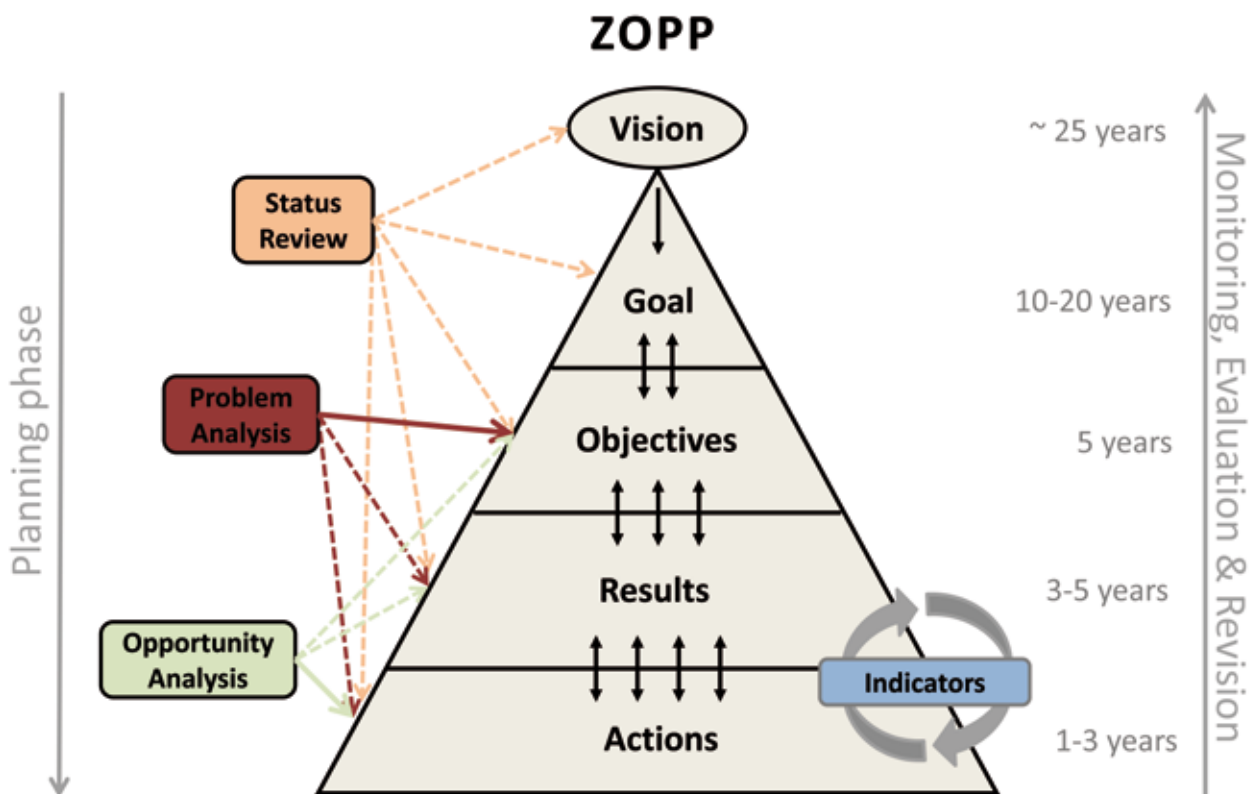


Fig. 3. ZOPP (goal-oriented project planning) pyramid as a scheme to explain the planning process in a participatory workshop. First a Vision and a Goal are developed, then Objectives to reach the Goal and Results for each Objective are formulated. Actions to fulfil each of the Results and Objectives are developed, and Indicators for monitoring and evaluating their effectiveness are defined. The Status Review as an input document is generally prepared before the workshop whereas the Problem and Opportunity Analyses are best done at the workshop together with all participants, e.g. as group works. The time horizon for each planning step is indicated on the right.

2. Where do we start from? – Status Review

The Status Review is a scientific and technical process. A group of (local) experts compile the best available information about the species' status well in advance of the workshop to assure that it is available on time. The SR is then circulated for review and distributed to the workshop participants so that they have the time to read it before the workshop. The Status Review presents not only biological information on the target species, but looks at the broad situation in the conservation unit. It provides background information important to understand the context, threats, constraints, human dimension and socio-economic aspects, policy and opportunities (Box 3). Contribution to the SR should be as broad as possible and practicable. The SR provides the opportunity for involving a wider group of contributors, to capture also local knowledge and thus to improve the practical relevance of the SR for the planning process.

A well-prepared Status Review supports the planning process considerably and helps the workshop participants to find consensus. A SR is time-bound and geographically scaled to the conservation unit defined for the SCS (IUCN/SSC 2008a, b). The SR can be an informal compilation of documents distributed as PDFs to the workshop participants, but sometimes

SRs are organised as stand-alone publications made available to a broader public. The SR should follow the IUCN Red List of Threatened Species™ assessment guidelines, allowing the integration of the information into future Red List assessments of the target species.

Depending on the conservation unit (e.g. number of countries involved) and the information readily available, a Status Review can be organised by subject (e.g. biology/ecology, population status and trend, habitat conditions, prey situation, conflicts and threats, political situation, economic aspects, social issues) or by country (Box 3). Wherever possible, the assessment should be based on scientifically robust and confirmed data. Unfortunately, as such information is not always available, expert opinion and "best guesses" will often have to do. However, the reliability and timeliness of data should be explained.

The SR – if not published as a stand-alone document – will be integrated into the SCS, describing the status at the beginning of the plan. If the SR is published independently, at least a summary should be part of the RCS or NAP. The SR is not only important for the planning process; it will also serve as a reference point for the subsequent implementation and monitoring phases (Points 5 & 6 in Fig. 2; chapter 5 & 6).

3. Where do we want to go? – (regional) conservation planning

After the Status Review has been completed and starting point is known, the next two questions can be tackled: 3. "Where do we want to go?" and 4. "How do we get there?" Although these two questions are closely related and can be answered using the same approach, it is for conceptual and practical reasons important to separate them. The first question refers to the strategic goals and priorities. This is a socio-political question that cannot be answered by experts alone. It requires a broad discussion and consensus. The second question is then more a technical and organisational challenge that can be discussed on the level of experts and practitioners.

A meaningful cat conservation unit likely stretches over several countries, encompassing different cultures, languages and legal systems. In this situation, it is needed to develop the Species Conservation Strategy at two levels:

1. The Regional Conservation Strategy providing guidance of the regional or range-wide conservation of the cat and
2. The National Action Plans (chapter 4) describing conservation measures to be implemented on a national (or local scale).

Strategy and action plan must not necessarily be at international or national level, but can also address regional or local levels. Important is that a strategy looks at the large picture of a conservation programme and the action plans translate the vision, goals and objectives into practical conservation activities at the level of sub-units. The division in RCS and NAP is mainly needed for logistic (group size, workshop language) or organisational (implementation of Ac-

tion according to national customs and regulations) reasons. However, for both, the RCS and the NAP, the planning process bases mainly on the Logical Framework Approach (LFA) and the "Zielorientierte Projekt Planung" (ZOPP, goal-oriented project planning) (GTZ 1997; SECO, no date). The LFA has been established in the early 1970s by various institutions but was originally developed by the American USAID and the ZOPP in the 1980s by the German agency for technical cooperation GTZ (today called agency for international cooperation GIZ). In this document, we use LFA as a synonym to ZOPP. The LFA/ZOPP is an analytical process and project design methodology which is prepared through a Status Review, Stakeholder and Problem Analysis, and includes Goal and Objective setting. A ZOPP pyramid (Fig. 3) is typically developed in a workshop where all relevant interest groups participate. One product of the LFA/ZOPP (Box 4) is the Logical Framework Matrix (Log-Frame), where the results of the workshop are summarised. LogFrames are today widely used for project management and supervision. The strategic part of the LFA/ZOPP (Fig. 3; Fig. 4) is to draw a Vision, to define the Goal, develop the Objectives, phrase the Results and define Actions. To decide how to achieve these strategic instructions is then mainly a technical process and a matter of negotiations between different interest groups (and of course a matter of funding...). Splitting the process is foremost a practical requirement; a participatory workshop uniting people from various sectors and regions is limited to about 40 participants and a work period of 4–5 days.

Results and Actions are required at the international and national level. Indeed, a RCS and a NAP often look rather similar, but they differ in the geographic scope and in the definition of Results and Actions. The RCS should present

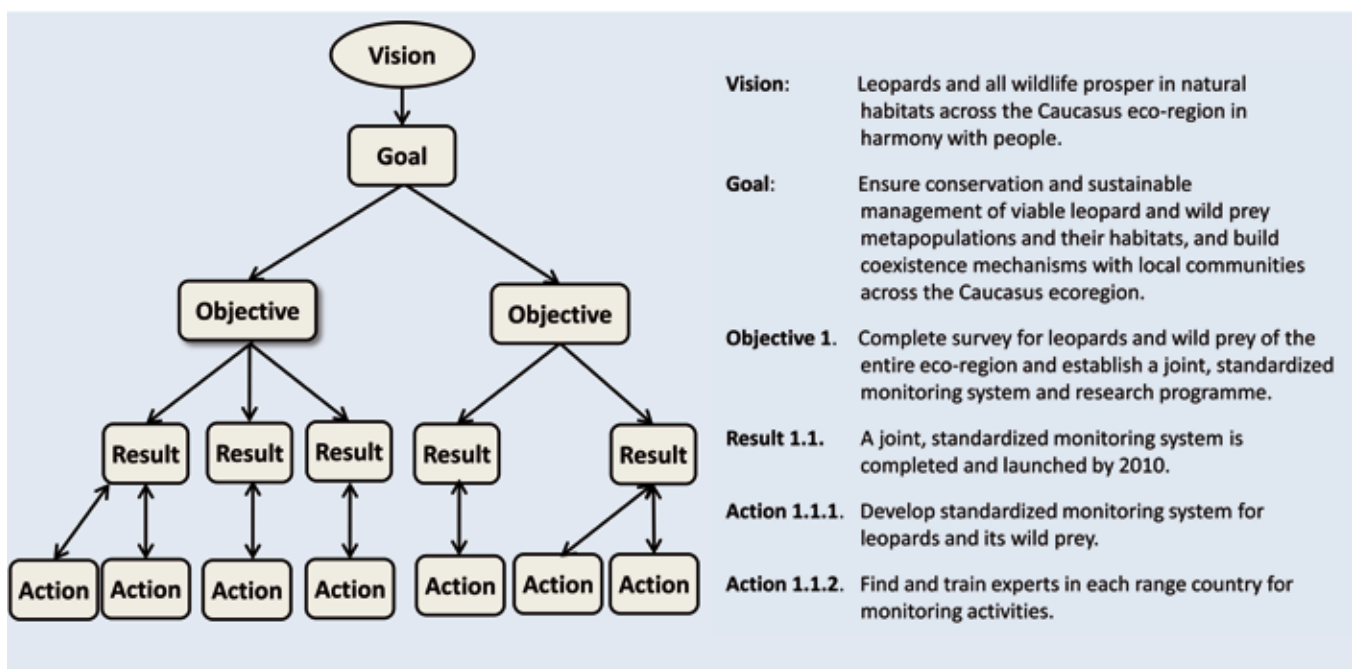


Fig. 4. Example of a LogFrame pyramid phrasing from the Strategy for the Conservation of the leopard in the Caucasus Ecoregion.

Results and Actions required on the level of the entire conservation unit, mainly related to international cooperation. Concentrating on overarching Actions is however not practical, because transboundary Actions often only emerge from local Actions, and because workshop participants tend to be fixed on details and tangible in situ work. In this case, it is best to include a number of concrete Actions in the RCS recommended to be considered in the NAPs. The NAP is then informed by the RCS. A NAP concentrates on a part of the conservation unit and outlines in detail the Results and Actions needed within a country or management unit.

3.1. Participatory development of the Regional Conservation Strategy

A workshop for developing a RCS with participants from several countries will typically take three days (Box 6). It is the task of the organisers and facilitators to decide about the strategic planning approach and to instruct and guide the workshop participants through that process. A “participatory approach” implies that all participants at the workshop get the opportunity to express their views. However, exhaustive discussions are generally not possible due to time restrictions. To com-

Box 6. Example of an agenda for a workshop for the development of a Regional Conservation Strategy

Day 1	<p>Morning:</p> <ul style="list-style-type: none"> • Introduction, presentation of participants • Range country statements • Presentations of the Status Review (topical or by country) <p>Afternoon:</p> <ul style="list-style-type: none"> • Plenary: Introduction into the LFA/ZOPP workshop process • Group work: Definition of Vision and Goal • Group work: Problem Analysis: Identification of threats, constraints and opportunities • Plenary: Presentation and discussion of Vision and Goals
Day 2	<p>Morning:</p> <ul style="list-style-type: none"> • Plenary: Problem Analysis: Ranking of threats and opportunities (Problem Tree) • Group work: Definition of Objectives <p>Afternoon:</p> <ul style="list-style-type: none"> • Plenary: Presentation and discussion of Objectives • Group work: Definition of Results and Actions (per Objective)
Day 3	<p>Morning:</p> <ul style="list-style-type: none"> • Plenary: Presentation and discussion of Results and Actions • Group work: Definition of Indicators, Methods, Actors and Timeline (Actions) <p>Afternoon:</p> <ul style="list-style-type: none"> • Country working groups: Review of the Problem Analysis per country; recommendations for National Action Plans based on draft RCS • Plenary: RCS drafting team, review and revision, post-workshop agenda (endorsement and implementation of the RCS, development of NAPs), final discussion.

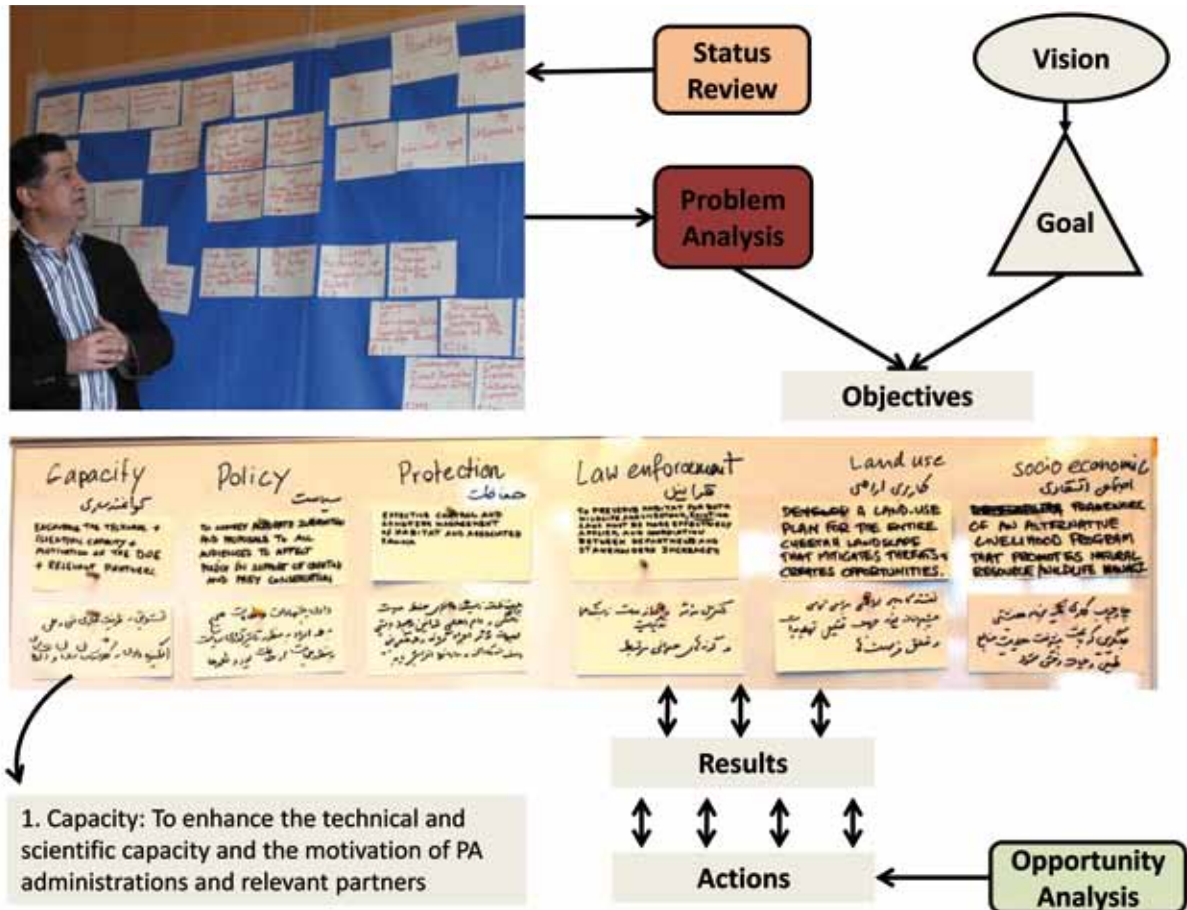


Fig. 5. Pin wall, writing cards, digital photography and computer projection as tools for workshops. The Problem Tree at the sticky wall (photo) is part of the Problem Analysis. Combined with the Status Review and considering the Goal, this is used to phrase 6 Objectives on the pin wall (photo), which are then typed into the computer. From the Objectives, Results and Actions are identified taking into account Opportunities.

plete the workshop programme (Box 6), the facilitators need to carefully observe the schedule and restrict both, the time for plenary discussions and for working in groups.

Important working tools for a facilitated participatory workshop are pin walls and writing cards to capture a participant’s opinion, and flip charts for smaller working groups. Combined with digital photography and computer projection, pin wall and flip chart results are easily captured, presented to a large audience and transferred into presentations and text documents (Fig. 5). To be more efficient during a workshop the plenary is repeatedly split up into 3–5 working groups (Box 7). On the one hand, one advances faster when distributing assignments; on the other hand, in a small group each participant has a higher rate of interventions and more opinions are captured. Participants present their results to the plenary at the beginning or end of a (half) working day (Box 6). After each plenary discussion, the facilitation team integrates the results from the groups into the draft strategy. If within a reasonable time of plenary discussion no consensus can be reached over a certain question, it is recommended to have a small split-off group of participants – e.g. one member of each working group – preparing a compromise proposal for the next plenary session.

3.2. Developing the elements of the ZOPP pyramid

The key task during the workshop is to develop the LogFrame according to the ZOPP pyramid (Fig. 3). After the situation review and the introduction to the workshop process, the elements of the pyramid are developed:

Vision and Goal: The Vision is a wishful dream (Box 5) and a good starting point for a workshop. The Goal is then the more concrete, realistic, and time-bound expression of the vision, condensing the overall purpose of the SCS. Vision and Goal are defined in a plenary discussion or in several working groups, which then present their versions to the plenary, where the different propositions are amalgamated into the final Vision and Goal.

Objectives: The Goal is then broken up into several Objectives, which address directly threats or shortcomings as revealed in the Problem Analysis (Box 5; chapter 3.3.). Each of the major threats impeding the completion of the Goal should be covered by one Objective. A reasonable conservation plan has 5 – 8 Objectives. The definition of Objectives is a crucial step because the intention as expressed in the Vision and Goal must here be translated into concrete and achievable Sub-Goals. Clear and not too ambitious Objectives will con-

Box 7. Working Groups

Working groups allow discussing several questions in parallel or to explore several alternatives for the same topic. Working groups are organised in a way that all experience needed and all points of view are represented in each group.

Working group organisation:

- **Convener:** Guides the discussion, assures that each group member can express his/her opinion and watches time. The convener's opinion is however not superior to other opinions.
- **Flip chart recorder:** Outlines the group's ideas on the flip chart (or alternatively on a pin wall or by means of computer projection). Write clear and legible and use drawings, diagrams, pictures wherever possible.
- **Recorder:** Takes notes of the discussion and flip chart records on notebook computer. Helps group to remember and revise earlier statements. Asks group to repeat statements whenever needed. Brings after each session group results on memory stick and digital photos of the hand-written notes to the facilitators.
- **Reporter:** Presents group findings and conclusion to the plenary. Prepares (computer) presentation with recorder, flip chart recorder and convener.

Working group rules:

- You are here to provide your experience and knowledge, not to defend your personal or institutional position.
- All ideas are valid – the only bad ideas are those not expressed.
- Everyone participates, no one dominates. Listen to each other and treat each other with respect.
- Seek common ground (where do we agree?) rather than insisting on differences.
- Observe time frame. All interventions and discussions should be concise and to the point.
- Make sure all ideas are recorded and hand in group reports after each group session.

siderably facilitate the subsequent planning process and the successful implementation of the plan.

Results: Each Objective is then split into 1–3 Results. The Result is the most concrete of all outcomes and must be formulated so that it is SMART (Specific, Measurable, Attainable, Relevant and Time-bound; Box 5). In the tabulated form of the LogFrame (Box 8), each Result gets one or several Indicator(s), allowing monitoring the performance of the Actions. Indicators should be precise, consistent over time and space, and be sensitive (IUCN/SSC 2008a, b; The Nature Conservancy 2007).

Actions: Each Result should be realised through one (rarely more than one) Action(s). An Action must be defined as clear and concrete as possible: Who does what, how, where and until when? In the tabulated LogFrame (or a more detailed work plan), each Action is completed with the methods, actors, a timeline, and a budget.

When defining Results, Actions, and Indicators, it is important to consider the findings of the Status Review and the Problem Analysis as well as opportunities (chapter 3.3). The relation between a given threat and the corresponding

Result, Action, and Indicator will be based on certain assumptions. These describe how a particular Action or Result, respectively, will lead to a conservation impact. Ideally, assumptions are based on case studies and scientific results. Such detailed work can generally not be done during the workshop and needs subsequently be completed by the Drafting Committee (chapter 3.4.). Nevertheless, assumptions should be clearly stated when Results, Actions and Indicators are formulated, so that they later can be verified. If the implementation of a RCS (or a NAP; chapter 4) fails, the reason is often that the Objectives and/or Results were unrealistic or too ambitious. The practicability of a plan must be secured at the level of Results and Actions. This implies that designated Actors are willing and able to act, and that they have the proper means (including funding).

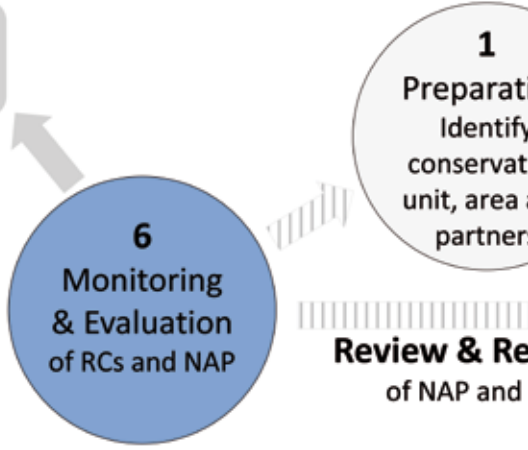
At some point, the implementation of the RCS needs to be budgeted. This is a difficult task that cannot be done during the workshop. However, it is helpful to have at least a rough idea of the magnitude of the costs. The working groups should estimate roughly the costs for each Action proposed. It is then the task of the Organising or Drafting Committee to work out a realistic budget after the planning workshop.

Checklist for cat conservation program

- 1. Preparing the programme**
- 1.1. Conservation unit defined
 - 1.2. Partnership and Organisation Committee established
 - 1.3. Stakeholders identified and informed
 - 1.4. Political support and mandate secured

End of programme

- 6. Monitoring, Evaluation & Revision**
- 6.1. Monitoring and Evaluation designed
 - 6.2. Peer review/external supervision organised
 - 6.3. Standardised reporting done
 - 6.4. Website for RCS and/or NAP available
 - 6.5. Monitoring report(s) published
 - 6.6. Evaluation of progress conducted
 - 6.7. Revision completed and new version published



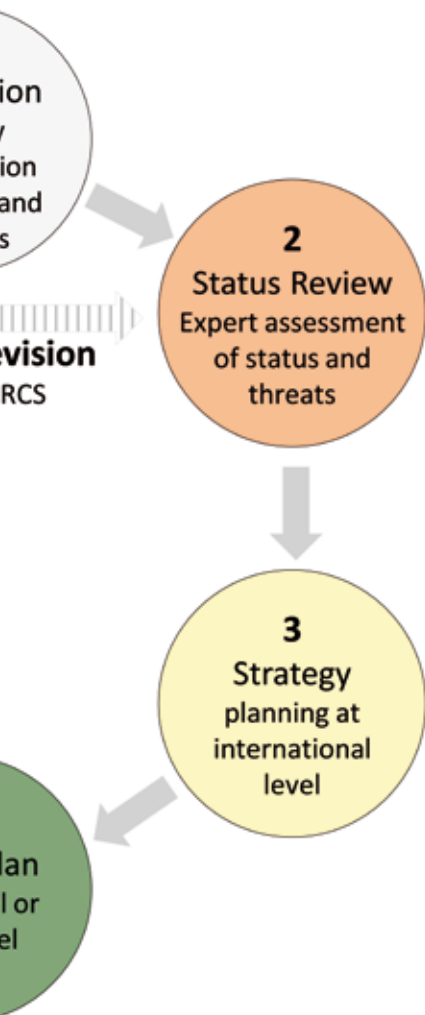
- 5. Implementation**
- 5.1. Task Force and Coordinator elected
 - 5.2. Work Plan developed and distributed
 - 5.3. Financial Plan developed
 - 5.4. Communication strategy and plan established
 - 5.5. Operational funding secured
 - 5.6. Funding for Action implementation secured
 - 5.7. Standardised reporting (form, interval) defined
 - 5.8. Work Plan implemented
 - 5.9. Communication strategy and plan implemented

- 4. National Action Plan**
- 4.1. Stakeholders identified and invited
 - 4.2. RCS translated and distributed to participants
 - 4.3. National Status Review available and distributed
 - 4.4. Infrastructure working, presentations ready
 - 4.5. RCS country assessment reviewed and adopted
 - 4.6. Vision, Goal, Objectives and SMART Results defined

Programmes and Strategic Planning Cycle

Background

- 1.5. Process and procedures (endorsement) defined
- 1.6. Facilitator (team) identified
- 1.7. Financial means for planning process secured
- 1.8. SCS workshop organized



2. Status Review

- 2.1. Experts and contributors defined
- 2.2. Status Review drafted
- 2.3. Status Review revised and edited
- 2.4. Status Review published and/or distributed

3. Regional conservation Planning

- 3.1. Participants for workshop invited (visas!)
- 3.2. Infrastructure working, presentations ready
- 3.3. Problem Analysis (incl. country assessment) done
- 3.4. Vision, Goal, Objectives, Results, Actions defined
- 3.5. All files (working groups!) saved, all pin walls and flipcharts photographed, group picture taken
- 3.6. Structure of RCS agreed, Editorial Team elected
- 3.7. Review participants (deadlines!) agreed
- 3.8. Review & endorsement Range States discussed
- 3.9. Final version of RCS as PDF distributed or published

Action Planning

- 4.7. Actions: actors, means and timelines defined
- 4.8. All outcomes, files, reports, pictures, etc. saved
- 4.9. Structure NAP agreed, Editorial Team elected
- 4.10. NAP reviewed (deadline!) by workshop participants
- 4.11. NAP reviewed and endorsed by relevant authorities
- 4.12. NAP published and advertised

Box 8. Logical Framework Template

The LogFrame is a product of the LFA/ZOPP. It is a document (most often a table) showing the hierarchy Goal, Objectives, Results, and Actions. It is a structured and highly condensed way of presenting a plan. A SCS is a complex endeavour difficult to depict in a simple two-dimensional matrix. We therefore propose to present the LogFrame both as a multi-level list with ample explanations and as a table, as shown in the following templates:

Objective 1.	Description of objective as defined in the workshop
Result 1.1.	Description of SMART Result as defined in the workshop Indicator: Relevant and measurable variable to monitor the success of an Action in regard of the stated Result Timeline: Duration of Actions for achieving the Result
Action 1.1.1.	Description of Action as defined in the workshop Where? – Implementation area within the entire conservation area Who? – Actor responsible for implementing the Action How? – Method used when implementing the Action When? – Time frame for implementation of the Action within the target timeline
Action 1.1.2.	Description of action as defined in the workshop
Result 1.2.	...
Objective 2.	...

<i>Objective</i>	<i>Description</i>				
Objective 1	Description of Objective as defined in the workshop				
<i>Result</i>	<i>Description</i>		<i>Indicator</i>	<i>Timeline</i>	
Result 1.1	Description of Result as defined in the workshop		Measurable variable	Timeline for fulfilment	
<i>Action(s)</i>	<i>Description</i>	<i>Area</i>	<i>Actor</i>	<i>Method</i>	<i>Time frame</i>
Action 1.1.1	Short description of action	Area of implementation	Responsible for implementation	Methods used for action	Start and end of action
Action 1.1.2.	Short description of action	Area of implementation	Responsible for implementation	Methods used for action	Start and end of action
Objective 2	Description of Objective as defined in the workshop				
<i>Result</i>	<i>Description</i>		<i>Indicator</i>	<i>Timeline</i>	
Result 2.1	Description of Result as defined in the workshop		Measurable variable	Timeline for fulfilment	
<i>Action(s)</i>	<i>Description</i>	<i>Area</i>	<i>Actor</i>	<i>Method</i>	<i>Time frame</i>
Action 2.1.1	Short description of action	Area of implementation	Responsible for implementation	Methods used for action	Start and end of action

In addition to the LogFrame, a complete SCS will also contain additional tables presenting the budget, Work Plan, Monitoring and Evaluation Plan (M & E Plan), etc.

3.3. Problem Analysis

After defining the Vision and Goal and before formulating Objectives, a Problem Analysis seeks to identify all factors that hinder the attainment of the Goal. Likewise, before defining Results and Actions, an Opportunity Analysis identifies enabling factors (opportunities; Box 9). During the workshop these analyses are used to develop well-targeted Objectives and realistic Results and Actions.

A set of threats is already available from the Status Review (chapter 2). These are presented and discussed. We recommend distinguishing between direct and indirect threats. The latter are constraints that hinder the conservation of the species, but do not directly affect the survival of the population (e.g. lack of awareness or knowledge, lack of law enforcement). Factors which are outside the control of the SCS are listed apart (e.g. climate change, instable political situation, human population growth) but are still kept in mind during the whole process.

After having agreed on threats, opportunities are listed, too. These add a positive touch to the discussion, but also help to formulate pragmatic Results. Negative and positive factors – e.g. compiled on cards on the pin wall – are then used to build a Problem Tree (Fig. 6 & 7). A Problem Tree visualises the relationship between direct threats and their causes and constraints, but also with opportunities.

To facilitate the prioritisation of Results and Actions, threats can be ranked, e.g. according to their scope, severity, contri-

bution, likelihood, urgency or reversibility. There are many ways of doing this, but most often, a simple relative ranking (“very important and urgent”, “important”, or “not important or not applicable”) will do. From the Problem Tree several themes become apparent, which can be translated into Objectives (Fig. 7). Finally, the Problem Tree is tabulated and used for country-based reviews towards the end of the workshop (Box 6) in order to prepare the development of NAPs.

3.4. Drafting and review of the Regional Conservation Strategy

At the end of the workshop, a Drafting Committee DC or Editorial Team is elected that produces the first draft of the RCS. The DC sends the draft to all participants for review and then integrates the comments into the “final draft” RCS. The document should be considered a draft until it is endorsed by the Range States’ authorities in charge (chapter 3.5.). A RCS contains the following elements:

1. Introduction: Reason for and scope of the RCS;
2. Background information: Short to detailed review of the situation, depending on whether the Status Review was published as a stand-alone document or not;
3. Procedures: Development of the RCS and information on the workshop process including a list of participants;
4. Problem Analysis including ranked table with country-wise assessment of the individual causes, threats and constraints as well as opportunities;
5. Regional Conservation Strategy: Vision, Goal, Objectives, Results and Actions in text form;

Box 9. Problem and Opportunity Analysis

To formulate realistic Objectives (and subsequently Results and Actions), negative and positive factors influencing the conservation of the cat are reviewed during the workshop:

Negative factors (obstacles to the survival or conservation of the cat species):

- *Causes*: Factors that are/were responsible for the decline of the species triggering constraints and direct threats.
- *Constraints*: Factors and shortcomings without direct impact on the population, but which contribute to or compound threats and limit indirectly the conservation of the cat (e.g. political priorities, insufficient legal protection, capacity deficiencies, insufficient knowledge and scientific understanding).
- *Threats*: Factors presently threatening the survival of the species with a direct impact on the population (e.g. poaching, fragmentation, inbreeding).

Positive factors (conditions enabling us to conserve the species in the present situation):

- *Opportunities*: Socio-political, economic or cultural chances in advantage of implementing a SCS for the cat at the time being. The group’s own capacities and strong points to achieve the Goal and Objectives are also included under opportunities.

Identifying these factors can be an assignment to working groups. Repetitions and overlaps between the findings are no problem; they can easily be sorted out when constructing a Problem Tree which visualises the relationships between causes, constraints and threats, but also opportunities and by ranking the threats.

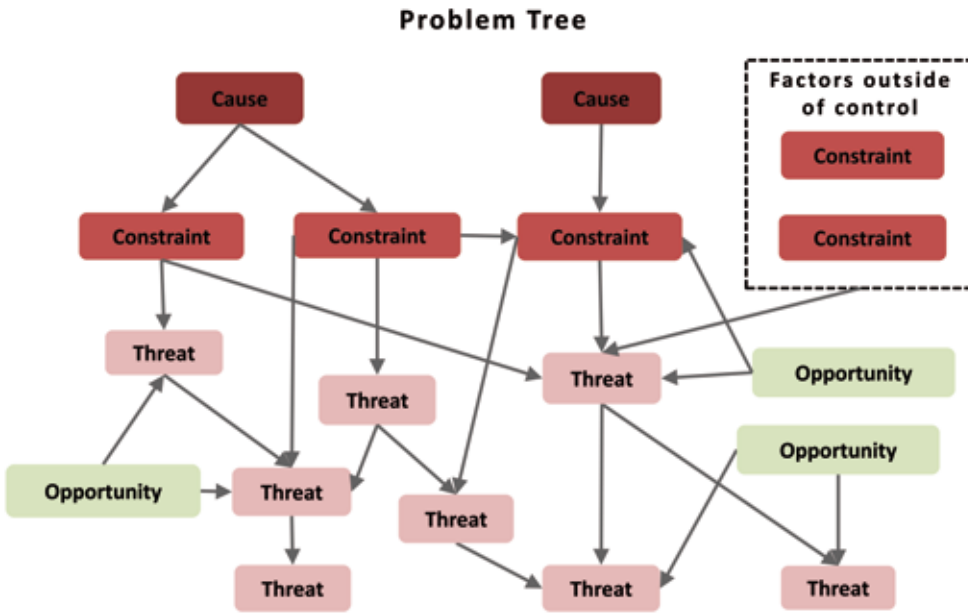


Fig. 6. To build a Problem Tree, threats are identified (or taken from the Status Review) and agreed on. Afterwards constraints and causes are identified and linked to the corresponding threats. Constraints which are out of control of the group (e.g. climatic change) are listed apart. Opportunities given through the situation (e.g. favourable political situation) are included and associated with threats and constraints. Based on this Problem Tree, Objectives for the SCS or RCS are developed.

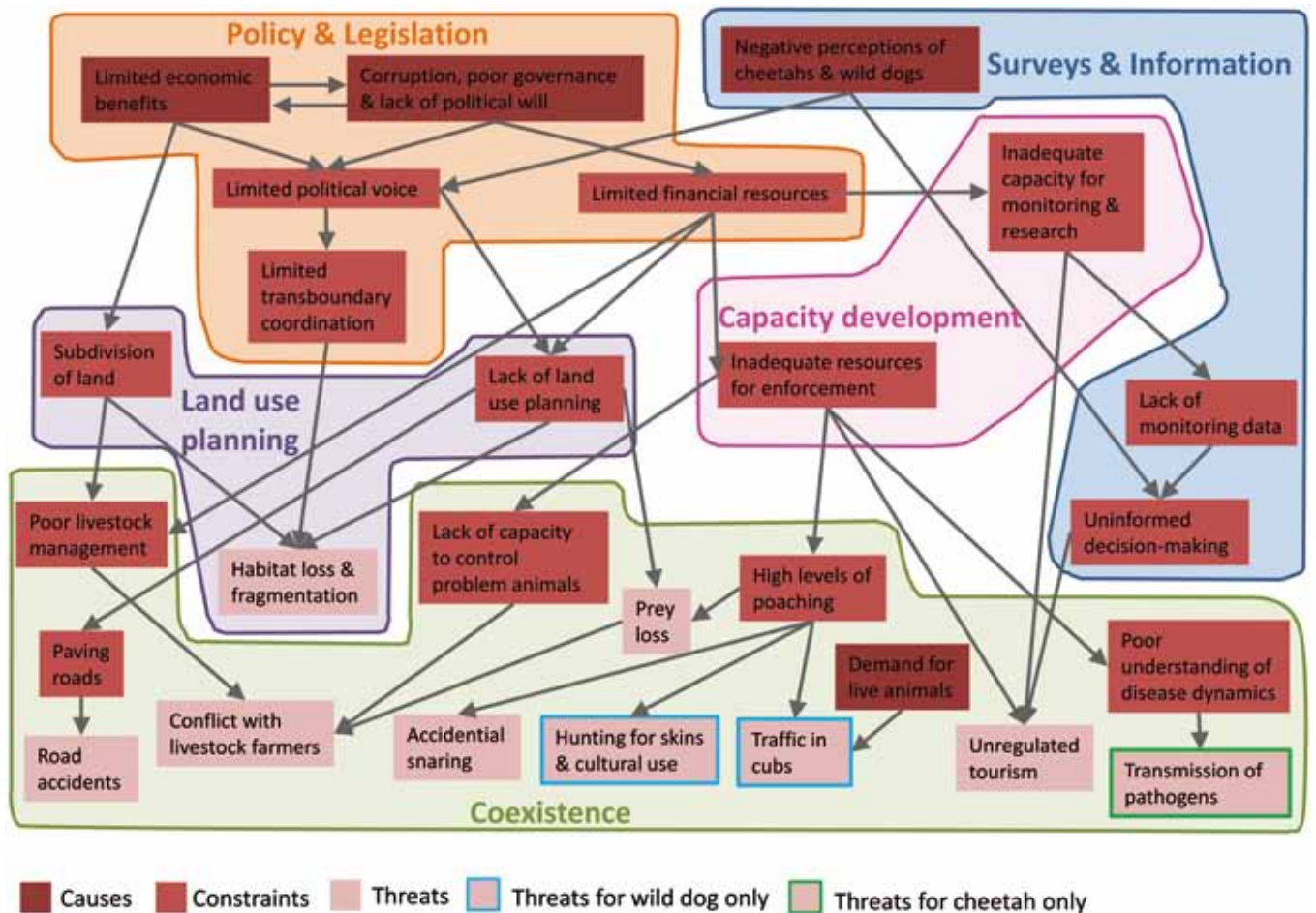


Fig. 7. Problem Tree example from national workshop on cheetah and wild dog. First direct and indirect threats are identified. Then, constraints and causes are linked to the corresponding threats. Constraints which are out of control are listed apart. This allows identifying different themes (coloured clouds), which can be addressed by the Objectives. Opportunities and factors outside of control are not included in this figure.

6. Tabulated RCS (LogFrame): Short version of the RCS in the form of a table (or a spreadsheet). For over-arching or trans-boundary Actions, Indicators need to be defined, and actors, methods, timelines, and financial needs should be specified;
7. Conclusions – further steps and management of the RCS: Transformation of the RCS into NAPs, implementation (e.g. through Work Plans), monitoring and evaluation, and revision;
8. Agenda of the workshop and list of participants;
9. Additional information as appendices as needed.

It is of most importance that the planning step is done thoroughly. The planning must be realistic and implementable (chapter 5.1.).

3.5. Endorsement of the Regional Conservation Strategy

The draft RCS as approved by the workshop participants is then submitted to the Range States' authorities and possibly international bodies identified for the endorsement process (chapter 1). These institutions may again review the RCS before endorsing it. If the changes proposed are significant, another consultation of the participants might be necessary. To facilitate the endorsement through all Range States involved, it is important that representatives of the respective authorities participate in the workshop. Nevertheless, in some countries, formal endorsement is a complicated process that may delay the implementation of a RCS considerably. If this is the case, a more informal "approval statement" from the ministry or agency in charge may be adequate to move ahead. Additional ratification from international organisations can give the RCS more weight and broader acceptance.

4. How do we get there? – (national) action planning

Strategic planning has to be done for a meaningful conservation unit (Breitenmoser, Breitenmoser-Würsten & Boitani 2012) allowing to secure e.g. long-term demographic and genetic viability (chapter 1). For most (larger) cats a strategic plan will be a Regional Conservation Strategy (chapter 3) encompassing several countries. Implementation of Actions (with exception of cross-border or multi-national ones) is generally tied to a legally and administratively uniform management unit, hence a country. The instrument to organise and control the implementation of conservation measures at this level is the National Action Plan. In countries with a strong federal structure, Action Plans may even have to be done for individual states or provinces. These need then to be informed by the respective NAP. A NAP should consider the range-wide goals and the agreed conservation principles, but it is nevertheless much more than a tool for the RCS implementation. The NAPs are subsets of the RCS with which each country contributes in solidarity with its neighbours to the Goal and Objectives of the RCS. This is important especially for the conservation of large and conflict-ridden cats, when conserving them is considered an unwelcome obligation, and where conservation goals (e.g. the viability of a metapopulation) can be achieved only if several countries contribute to the Goal (e.g. Linnell et al. 2008). The proce-

dures used for developing an NAP are much the same as for a RCS. We hence refer generally to chapter 3, but highlight in the following sub-chapters some important differences.

4.1. Organising the (national) action planning

The preparation for a NAP workshop follows the steps outlined for a RCS workshop (Box 4; Checklist SPC, page 18/19). Instead of international players, the relevant national actors, partners and stakeholder groups are identified and invited. Failing to select the right workshop participants may impede the subsequent implementation of the NAP. Representatives of the following institutions or groups should be at a NAP planning workshop:

1. The ministry or governmental agency that commissions the NAP and is accountable for the political and legal frame of the NAP;
2. Other ministries or governmental agencies affected by the NAP (e.g. mining, forestry, tourism);
3. Researchers and technical staff able to provide the scientific and practical background;
4. Managers who will be involved in the implementation of the NAP (e.g. protected area administration, wildlife management units);
5. Conservation organisations (NGOs are often initiators and important players) and
6. Representatives of the land users and local people.

To gain the support of local people and stakeholder groups for the implementation of Actions, they must have a voice in the development process and should therefore participate in the workshop. The RCS provides a frame for a NAP, but the workshop participants need to have the freedom to define Results and Actions at national/local level (Fig. 2; chapter 3). An important aspect is the language. A national workshop should be held in the national or local language(s), so that all are able to participate with equal conditions. The entire or at least all relevant parts of the RCS should be translated into the national language(s) and made available to all participants prior to the workshop.



National Action Plan workshop for cheetahs and African wild dog, South Sudan 2009.

If the Status Review prepared for the range-wide planning does not sufficiently or adequately capture the national/local situation, an additional national Status Review (in the national/local language) should be compiled to capture the local situation (Box 3) and be distributed.

4.2. Development of a (National) Action Plan

As for the RCS, the LFA or ZOPP (Box 5 & 8) is used to develop a NAP, and the workshop programme is very similar (Box 10). Components defined in the LogFrame of the RCS may have to be adapted or are even irrelevant at the national level. It is possible that local (economic, social or political) interests collide more directly with the conservation aims and that differences or even conflicts between stakeholders are more prominent than at international level. To overcome such differences and reach consensus, discussions and negotiations may need more time. Controversial NAPs may even need to be developed in more than one workshop, allowing for additional consultations between the sessions. As at national level, distances are generally shorter and logistics simpler, a multi-workshop approach might be feasible. An agreement is often achieved more easi-

ly if the NAP is subject to regular revision; hence the revision rhythm of a NAP might be faster than for the respective RCS (chapter 6). Supervision, monitoring and evaluation of the implementation (chapter 5) and revision (chapter 6) of the NAP must be discussed and defined at the workshop. The lifespan of a NAP depends on the time needed to fulfil most of the Actions proposed and is typically 4–5 years.

4.3. Editing and review of the National Action Plan

Towards the end of the workshop, an editorial team or Drafting Committee is elected to write the draft NAP. The content of a NAP is similar to a RCS (chapter 3.4):

1. Introduction: Reason for and scope of the NAP, reference to the RCS;
2. Background information: Summary of the status and situation of the species at national level with reference to the regional situation and the importance of the national population for the entire conservation unit;
3. Procedures: Development of the NAP and information on the workshop process, list of participants;

Box 10. Example of an agenda for a workshop for the development of a National Action Plan (NAP) based on a Regional Conservation Strategy (RCS)

Day 1	<p>Morning:</p> <ul style="list-style-type: none"> • Introduction, presentation of participants • Presentations of the Regional Conservation Strategy • Review and update of the range-wide and national status of the species (national Status Review) • Position statements of the national/local stakeholder groups <p>Afternoon:</p> <ul style="list-style-type: none"> • Plenary: Review of threats and opportunities at national level, complete the list with threats not stated in the RCS • Plenary: Review the Objectives and adapt where necessary to national needs, check if all threats are accommodated by one of the Objectives, especially the newly added ones • Plenary: Introduction into the LFA workshop process and working group rules
Day 2	<p>Morning:</p> <ul style="list-style-type: none"> • Group work: Definition of Results and Actions (per Objective) • Plenary: Presentation and discussion of Results and Actions <p>Afternoon:</p> <ul style="list-style-type: none"> • Group work: Definition of Indicators (for Results), methods, actors, timeline (Actions) • Plenary: NAP drafting team, definition of review and revision process, post-workshop agenda (endorsement and implementation of the NAP), final discussion

4. Problem Analysis with reference to the ranked table with country assessments in the RCS;
5. National Action Plan: Vision, Goal, Objectives, Results and Actions in text form;
6. Tabulated NAP (LogFrame): Short version of Objectives, Results and Actions as a table or spreadsheet with detailed Indicators for each Result and clearly defined actors, methods, timeline and financial needs for each Action;
7. Follow-up: Endorsement, implementation (e.g. through Work Plan), supervision (M & E Plan) and revision of the NAP;
8. Agenda of the workshop and list of participants
9. Additional information as appendices as needed.

The draft is then sent to the workshop participants for review. The review process is an important consultation of the stakeholders, but no participant or stakeholder group is allowed to change sub-substantial aspects of the plan if at the workshop a consensus was reached over this point. Of course, all elements of the NAP must be in accordance with the national legislation. As for the RCS, also for the NAP, it is necessary that the planning is realistic and implementable (chapter 5.1.).

4.4. Endorsement and advertising of the (National) Action Plan

The NAP needs to be endorsed by the authorities in charge of or concerned by its implementation. At a national level this generally goes beyond the ministry of environment and may include other ministries and departments at national or provincial level. If a formal endorsement is too complicated, a more informal approval might be adequate (chapter 3.5), but in either way, political support needs to be secured before developing the NAP (Checklist SPC, page 18/19) so that the endorsement protocol is already known at the workshop (Box 11). Finally, the NAP is published and advertised. Local people are generally not familiar with the usual scientific or administrative publication channels; hence the preparation of the NAP implementation requires public awareness and specific information in plain language in local meetings.

5. Ready, steady, go! – Implementation of Actions from the RCS or the NAP

Action planning does not save a species – only action does!” (David Mallon, IUCN/SSC Antelope Specialist Group). RCS and NAPs are only helpful conservation tools if they are implemented. Many Conservation Strategies and Action Plans have never been put into practice, even though a lot of effort was spent on their development (IUCN/SSC 2008a, b). Four typical shortcomings are often responsible for the failure of Action Plans or their planning processes:

1. The group developing the plan had no (political) mandate and was not representing the interest groups or people affected by the implementation of the plan;
2. The plan was too ambitious, unrealistic or not practical;

Box 11. Checklist for the implementation of a RCS or NAP		
1.	At the workshop: Establish Implementation Committee and identify Coordinator	<input type="checkbox"/>
2.	Endorsement and dissemination	<input type="checkbox"/>
2.1.	Endorsement	<input type="checkbox"/>
	Publication	<input type="checkbox"/>
2.2.		<input type="checkbox"/>
3.	Work Plan, Monitoring & Evaluation Plan (by Implementation Committee)	<input type="checkbox"/>
4.	Communication Strategy and Plan (by Implementation Committee and/or Coordinator)	<input type="checkbox"/>
4.1	Public awareness and local meetings	<input type="checkbox"/>
5.	Operational funding secured and Financial Plan developed	<input type="checkbox"/>
6.	Standardised reporting (form, interval, target groups) defined	<input type="checkbox"/>
7.	Work Plan implemented	<input type="checkbox"/>
8.	Communication Plan implemented	<input type="checkbox"/>
9.	Monitoring reports published	<input type="checkbox"/>
10.	Evaluation of progress conducted	<input type="checkbox"/>
11.	Reports and peer-review publications	<input type="checkbox"/>
12.	Revision and adaptation of RCS and NAP	<input type="checkbox"/>

3. The implementation of the RCS or the NAP was not properly organised and nobody felt responsible to act (e.g. actors were not defined in the planning process or not ready to take responsibility);
4. Funding for the implementation of the Actions foreseen was not available or could not be raised.

While the lack of political and public support (point 1) can be avoided through a carefully planned process as described in the previous chapters, points 2–4 need some further considerations.

5.1. Implementable and realistic planning

Objectives of a RCS or a NAP are defined so that they contribute to the Goal by addressing the threats (chapters 3 & 4). Some or part of these Objectives may be out of reach for the time and means available and may have to be addressed in



Workshop for the development of a Nation Action Plan for the leopard in Oman, 2013.

several consecutive versions of the plan – hence the different timelines of Goals, Objectives, and Results. The Results, however, must be achievable (SMART) and the Actions feasible (Box 5; chapter 3.2). Workshop participants are generally too optimistic with regard to the time and means needed for implementing Actions. To avoid frustration it is important to remain realistic and make sure that Actions are feasible and can be achieved in the proposed timeline. Immediately after the plan has been endorsed, funding needs to be secured and Actions should be implemented in order to achieve the Results in time. During a planning workshop, participants do often not have sufficient time or information for detailed planning, budgeting, and implementation of Actions. This must be done after the workshop by a specific group (chapter 5.2) and possibly by means of one or several additional Work Plan(s). At this stage, it will definitively have become clear what means and capacities are lacking to implement the plan. However, capacity development must be already an integral part of any RCS or NAP and be considered at the planning workshops!

5.2. Organising the implementation of a plan

The last chapters of a RCS or a NAP should outline how the plan will be implemented (chapters 3.4 & 4.3). The implementation of a plan needs to be overseen by a special committee, the Implementation Committee (IC). The IC should include members from GOs, NGOs and scientific institutions, possibly derived from the Organisation Committee and the Drafting Committee (chapter 1.2, 1.5 & 3.4). As such a body will meet only occasionally, a Coordinator or Project Manager should be designated who manages the implementation of the RCS or NAP.

The first duty of the IC is to translate the plan into a concrete and detailed Work Plan, including a Monitoring and Evaluation Plan (Box 12 & 13). Work and M & E Plans are formal documents and need not to be published. However, they must be available to all people involved in the implementation and evaluation of the plans. A fully transparent process with good communication and sharing of information is important, especially if controversial issues are involved. For complex plans, a Communication Plan should be developed (chapter 6.2) (Box 14).

5.3. Funding

Implementing Actions requires money. Funds are rarely promised before Actions are defined, and so a RCS or a NAP is also an instrument for fund-raising. The development of a SCS has its own costs (chapter 1.5) and is often considered not “real” conservation by potential donors. Nevertheless, the planning process is also important from a financial perspective, because a sensible plan with political endorsement and public support has a higher chance to lead to successful conservation, and careful planning secures much more effective use of the funds.

RCS or NAPs rarely come with a proper budget at the end of a workshop. Budgeting and fund-raising is often a task for the Drafting or at latest for the Implementation Committee and go along with the development of detailed Work Plans. Fund-raising can be done at the level of the RCS, the NAPs, or, more realistically, for the implementation of certain Actions. If fund raising is split, it is nevertheless recommendable to have a common overview budget and a financial strategy for the entire SCS to try to use synergies wherever possible, reducing over-all costs.

If potential funding organisations are known before the strategic planning workshops, they might be invited to the planning workshop – and they may also want to talk to each other. Potential donors are international or national institutions, conservation organisations, and rarely commercial sponsors. Governments and their respective agencies have a legal obligation to conserve and manage species or landscapes. They are in principle the proper funding institutions for law enforcement, long-term monitoring and management tasks. However, often, state agencies lack the means (funding, capacity, and equipment) to implement important conservation measures. Capacity building is therefore a priority during the first phase of a SCS. International or private donors are often interested to invest in capacity development, if they see that such investment is sustainable. A participative planning process does not only allow securing the commitment of the conservation community and the actors, but also of the potential funders of the SCS.



Workshop for the development of the Regional Conservation Strategy for the leopard in the Caucasus, Georgia 2007.

Box 12. Work Plan

The development of a practical Work Plan for the project gives not only detailed instruction for the implementation of Actions, it allows also to keep track of the performance, means, and funds. A Work Plan clarifies what will be done, by whom, when and how. A Work Plan is best developed by the project manager and the project team. It contains all information needed for the team, but is easily understandable and simple. Gantt charts are a good way to visualise such plans. A Gantt chart is a bar chart illustrating a project's schedule, developed by Henry Gantt in the early 20th century. The lines of the matrix list the tasks, whereas the columns represent the time periods (days, weeks, or months). Work Plans should be revisited and updated frequently.

The following steps are involved in developing a Work Plan:

1. Define or identify tasks, list them chronologically in the lines of the chart;
2. Distribute responsibilities of the team members;
3. Define and visualise timescale for each task;
4. Estimate costs, means, resources, and logistic for each task.

Box 13. Monitoring & Evaluation Plan

The selection of M & E tools depends on the SCS Objectives and Results. Methods should be accurate, reliable, feasible, and cost and time effective. Ideally, the main variable to be influenced by an Action is chosen as an Indicator. How to monitor it is tested and adjusted to the local conditions before implementation. The monitoring and evaluation process should be transparent including team members and partners. Evaluation questions are defined at the project start and all people involved should understand the rationale behind the M & E process.

In the M & E Plan, monitoring and analysis are clearly defined; e.g. what is monitored, how and what information is collected, how often, who is responsible, what is the timeline, how are data stored, analysed and interpreted, and how are findings shared. The IUCN (2000) suggests the following steps when developing a M & E Plan (adapted):

1. Establish use and scope of M & E Plan;
2. Check project Objectives and Results and their logic with regards to the main threat categories;
3. Establish overall evaluation requirements and questions;
4. Establish requirements for regular monitoring of implementation and progress of Actions towards desired Results;
5. Test overall M & E strategy with potential users and refine point 3 and 4;
6. Establish the information and Indicators needed for 3 and 4;
7. Check logic of Indicators with regard to assessing the Results;
8. Develop and test regular data collection / monitoring mechanisms;
9. Design open-ended and periodic evaluation activities;
10. Design information management system;
11. Design a learning and feedback process;
12. Decide how to evaluate the information and data.

Box 14. Reporting system, reports and communication

A standardised, comprehensive reporting is very helpful for monitoring and evaluation. The reporting system should be easy to apply by the project team, short, concise, based on the LogFrame and included into Work- and M & E Plans of a project. Reports should always follow the same scheme; definite versions should be clearly branded (authorship, date, and project name and project period) and the final version be released as a PDF. A standardised reporting is an important tool for communication and outreach. The form depends on the audience (internal, programme partners, donors, public). The report frequency depends on the projects timeline and needs of the respective audience (e.g. quarterly internal reports, yearly public reports, sporadic scientific publications).

Reports should be designed to:

- Enable the assessment of progress in the implementation process;
- Document and assess the achievement of Results (outputs, outcomes, impacts) according to the Indicators;
- Capture implementation issues (problems, opportunities, external and internal factors);
- Improve ongoing and follow-up Actions and future steps (Work Plan adaptations);
- Facilitate the replenishment of funds by donors;
- Provide a formal document record of what has been achieved during the reporting period;
- Inform donors, project partners and directors, stakeholders and the public on project progress and issues;
- Facilitate continuous and terminal reviews or evaluations;
- Promote transparency and accountability.

It is important that reports are:

- Clear and understandable;
- As short as possible, as comprehensive as needed;
- Presenting concise information;
- Objective, neutral and self-critical;
- Reflective and focused;
- Following a standardised design;
- Including the most important points;
- Highlighting the successes, mentioning the failures;
- Disclosing changes, adaptations and future goals;
- Including a summary of the report target and its context;
- Including problems, risks and mitigation strategies;
- Stating lessons learnt.

A complex project with many partners and stakeholder groups involved requires a differentiated reporting. While the interpretation and conclusions should always be the same regardless to the audience, the form and presentation may considerably differ: technical, scientific or popular reports, distributed monthly, quarterly or annually via website, (electronic) mail or as a presentation, etc. Furthermore, word of mouth information is very important in field projects when interacting with local people and project staff should be instructed on this. We recommend outlining rules for written and verbal reporting in a Communication Strategy. This does not only facilitate consistent reporting, it also helps raising the awareness on the importance of communication within the project team.

6. Are we on the right way? – Monitoring and evaluation

Implementing a Species Conservation Strategy is an iterative and adaptive process (Fuller et al. 2003): Planning and implementation phases are followed by monitoring and evaluation. Depending on the results from monitoring and evaluation, the plan will be revised (Fig. 2).

6.1. Monitoring and evaluation of the implementation of the plan

Reliable monitoring is crucial to evaluate the performance of a SCS. Monitoring and evaluation facilitates the validation of assumptions, tracking progress and learning. Evaluation takes a broader view of an intervention by considering the progress towards stated Objectives and Goals, whether these were relevant and worthwhile in the first place, how effectively and efficiently they are being achieved, if the intervention has provoked unanticipated effects and whether the strategy is the most cost-effective and sustainable one for addressing the defined problems. Furthermore, evaluation reveals the “lessons learnt” to inform other and future conservation projects on the efficacy of the interventions. Scientific robust monitoring is demanding and requires proper resources (e.g. Morrison 2002), but if it is neglected it will lead to loss of time and funds, or even to the failure of interventions.

The first important questions are what to monitor and how to monitor. If the Results in the plan are SMART and the Indicators well-defined, it should be straightforward to monitor the performance of a given Action. At the higher hierarchical level of the LFA, monitoring should reveal whether the combined effect of a group of Results meets the respective Objective(s) and finally the Goal(s). Hence parameters for monitoring need to be defined also at the Objective level and possibly for the long-term Goal, e.g. the general status of the cat and its development in the conservation unit. The continuous monitoring of the Indicators (for each Result) and the specific monitoring (e.g. in regular intervals) at the level of Objectives requires a well-designed Monitoring and Evaluation Plan (M & E Plan) with clear definition of the monitoring methods and the interpretation of findings (Box 13). While the fulfilment of a SMART Result should be easy to assess according to the Indicators, monitoring at the Objective level often allows only the discovery of correlations (e.g. population trends) and may require a purposeful analysis and interpretation. This may lead to discussions. We therefore recommend publishing the findings in scientific journals whenever possible (chapter 6.2).

6.2. Reporting

Reporting is often strongly neglected in conservation programmes, and yet it is crucial not only for the performance of the project itself, but also for advancing conservation in general. There are several categories of addressees and hence different forms of reports:

1. Project team members need to be informed frequently about new developments and data in form of simple, but rather detailed progress reports;
2. Programme partners (e.g. the institutions involved in the planning process) need to learn at a regular basis of the progress of the programme according to the LogFrame, e.g. by means of an annual report, including monitoring results and financial aspects;
3. The local/national public needs to be updated on the general performance and the progress without technical details, e.g. in form of a popular annual progress report;
4. The conservation community should be informed about the principle results and experience, best in form of scientific, peer-reviewed publications.

Reporting should be consistent and periodical, but also short and concise (Box 14). Superfluous reporting is confusing, and it must be strictly avoided to have several versions of the same report released. No reports labelled as “draft” should be circulated among a wider audience, and the final version should be released in Portable Document Format PDF. Each RCS and also NAPs with a certain outreach needs a website where progress and monitoring reports are made available. Electronic communication is today’s standard for the exchange of information between professional groups. However, local stakeholders and people may need different information in an appropriate form, e.g. through articles in local newspapers or through presentations and the opportunity for discussions.

6.3. Revision of the SCS and/or NAP

The implementation of a RCS or a NAP is an adaptive process. Consequently, adaptations should be made as the continuous monitoring and evaluation suggests changes, e.g. once a year. These adjustments will mainly concern the Actions and Results, sometimes the Indicators. The adaptation of Objectives and the Goal should be done in a basic revision process of the SCS. Each RCS and NAP needs to have an explicit lifetime, after which it is reviewed and revised.

The review and revision of a RCS or a NAP is again done in a participatory workshop, usually with the same stakeholders and partner institutions as in the original SCS planning process (chapters 3 & 4). A revised plan is often more practical and operational than the earlier version. On the one hand, the implementation of Actions along with a proper monitoring and evaluation process will provide a better understanding of the problem, and on the other hand, the partners involved in the planning process have most likely a better and more realistic understanding of the entire process. We hence recommend that the lifetime of a RCS or a NAP, at least in its early stage, should not be too long, e.g. not more than 5-7 years. After the revision, the new version of the RCS or NAP is published again, and the Work Plan and M & E Plan adjusted. The loop of revision, implementation, monitoring and evaluation (Fig. 2) is repeated until the Objectives are fulfilled and/or the Goal is reached.

III. Project Management – Adaptive Project Cycle

A Species Conservation Strategy at the level of a Regional Conservation Strategy or a (National) Action Plan is mainly a strategic planning instrument, aiming to unite a lot of different players over an extended area under a set of common principles. Although we have included the implementation phase in the Strategic Planning Cycle (SPC; Fig. 2), RCSs or NAPs are indeed often implemented through several local projects (Fig. 8). A project may be a series of Actions for a specific project area directly derived from a RCS or a NAP, or it can be an independent undertaking adopting the standards and approaches as defined in the SCS. In practice, several projects will already be running when the strategic planning process is started. The project leaders should participate in the RCS or subsequent NAP workshops; they will help to make the plans practical and applicable. In fact, SCS are often inspired by local projects, when it becomes obvious that the real challenges are rather regional or range-wide than local, and that working together would allow using synergies and saving (financial) resources.

There is an overall logic to all project planning and an explicit or implicit vision behind any project idea. Like RCSs and NAPs, projects need a thorough planning and management to be successful in the long-term. Here we provide a simple guidance on how to use the existing tools consistently from the first

idea to launch a project to its terminal evaluation in form of an Adaptive Project Cycle (APC; Fig. 9). The APC is similar to the SPC (Fig. 2), but emphasises less the planning and more the subsequent implementation, analysis, and learning phase. The approach is based on existing planning and management methods widely used in conservation, such as the Logical Framework Approach, the IUCN Standards for species conservation planning (IUCN/SSC 2008a, b), and on the Open Standards of Conservation Practice developed by the Conservation Measures Partnership CMP (CMP 2013). CMP is a partnership of conservation organisations bringing together common concepts, approaches and terminology in conservation projects in order to improve conservation practice (www.conservation-measures.org). CMP also develops and distributes conservation tools such as the Miradi Adaptive Management Software, a program for project design and management. The approach outlined here should be compatible to the most important and most widespread conservation project management principles. Depending on where a project starts from (e.g. if it directly bases on a SCS), not all steps included in the APC might be needed or applicable. The project is assumed to have a preparatory phase, followed by an adaptive implementation period and completed by a terminal evaluation, summarized in the six steps of the APC (Fig. 9; Box 15).



Fig. 8. Schematic model for the range-wide coordinated conservation of a species through a Species Conservation Strategy consisting of a Regional Conservation Strategy which informs several National Action Plans, and is then implemented through several conservation projects (blue dots). The plans (top-down) inform the projects and provide standardised approaches, whereas the information collected during the monitoring process (bottom-up) help to evaluate and revise the NAPs and the RCS, which then feeds back again to the projects (Breitenmoser et al. 2016).

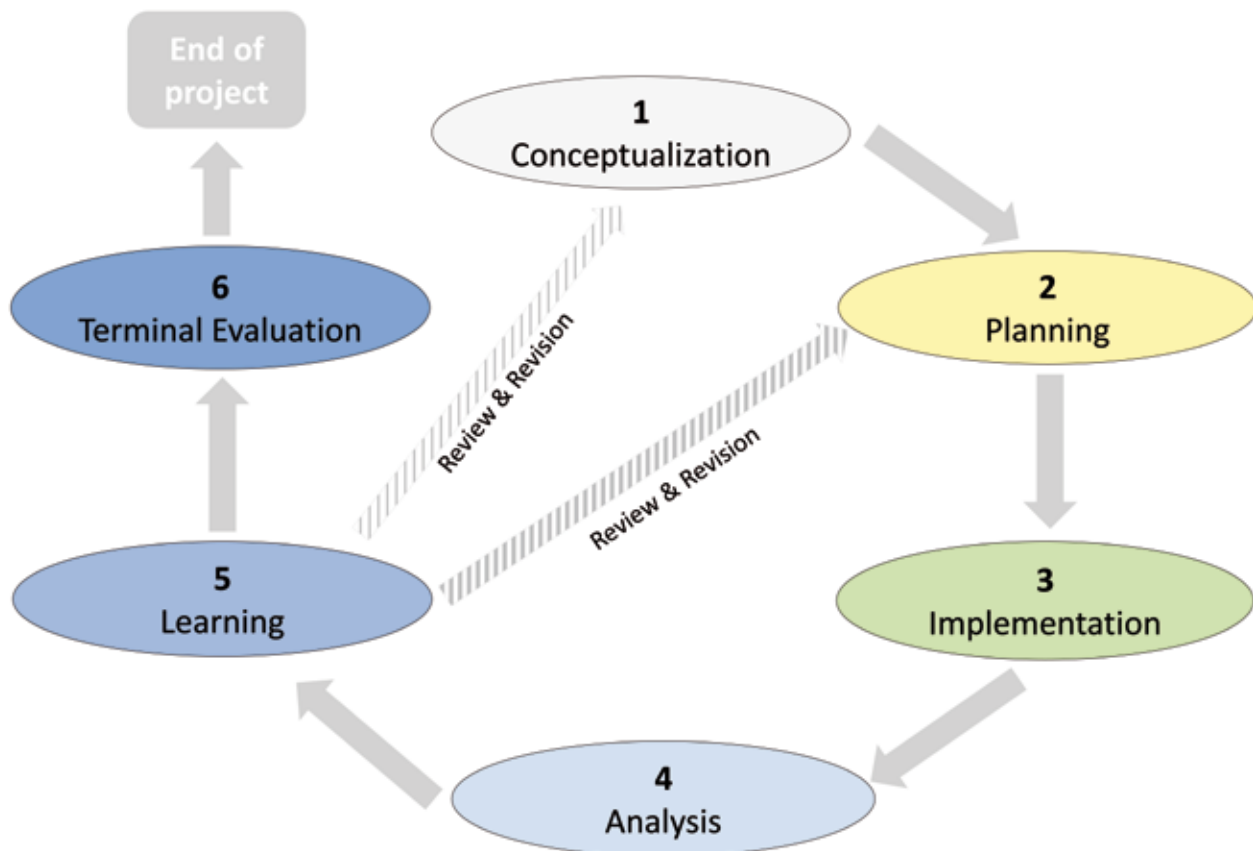


Fig. 9. Adaptive Project Cycle for project planning and management. The different steps are indicated. Step 1. Conceptualization corresponds to point 1 and 2 of the Strategic Planning Cycle, but on project level. The problem(s) is identified, the conservation unit defined, Status Review and Problem analysis conducted, stakeholders and partners defined and political support sought. Additionally, the status of the conservation unit without intervention is projected. Step 2 Planning corresponds to point 3 of the SPC. In this step the LogFrame is built in the LFA, reporting and Communication Strategy developed, budget defined and funding secured. The plan is implemented (step 3, analogue to point 5 in SPC) and the progress regularly analysed (step 4), findings and lessons learnt captured and shared (step 5) and the approach reviewed and revised. Steps 4 and 5 correspond to point 6 of the SCP. The APC emphasises the Terminal Evaluation (step 6). This is conducted at the end of the project, where the project outcome is compared with the goal and the project's (long-term) effects are assessed.

1. Conceptualisation

Preparing the ground for a project follows mainly step 1 and 2 from the SCS process, although on a more local level: partners and stakeholders are identified, and political support (e.g. a mandate) is sought. The scope and the project area are defined, the situation and the current status are examined (Status Review; Box 3), a thorough Problem Analysis (Box 9) assessing threats and constraints is conducted, and opportunities are identified. The Status Review is compiled together with the results of the Problem Analysis and the projection of the future status into a Status Report. We recommend also performing a prediction on the future fate of the species if no conservation measures are taken. The first aim of a conservation project is often to halt the further population decline, but this can only be demonstrated if the further trend is modelled, at least for the expected duration of the project. Different tools for such a prediction exist, foremost models developed for population viability analyses. If

available data are too limited to feed a quantitative, statistical model, at least a simple (linear) projection or an expert estimation is recommended.

2. Planning

The actual planning is again best done in a participatory way, e.g. by means of a workshop. The project planning is based on the Status Report and Stakeholder Analysis. Goals, Objectives, Results and Actions are defined (Fig. 3) and a LogFrame (Box 8) is developed, which takes underlying assumptions and possible risks into account. A Monitoring and Evaluation Plan (M & E Plan) is elaborated (Box 12), a standardised reporting system and a Communication Strategy (Box 14) are developed, a budget defined and funding secured. Ideally and eventually, planning is taken down to sufficient detail to enable the development of day to day Work Plans (Box 12) for single Actions.

Box 15. Checklist Adaptive Project Cycle (APC)

1. Conceptualisation

- 1.1. Problem, taxonomic and geographic unit defined
- 1.2. Status Review conducted
- 1.3. Problem Analysis done
- 1.4. Projection without intervention made
- 1.5. Status Report written
- 1.6. Stakeholders and Partners (for planning process) identified
- 1.7. Political support and mandate sought as needed
- 1.8. Scope and Vision defined

2. Planning: strategy, action plan, monitoring and evaluation plan

- 2.1. Goals, Objectives, Actions, Indicators and Results defined (Strategy, LogFrame & Action Plan developed)
- 2.2. Activities and strategies prioritised
- 2.3. Monitoring and Evaluation Plan created
- 2.4. Standardised reporting system defined
- 2.5. Internal and external communication strategy developed
- 2.6. Financing and budget defined

3. Implementation

- 3.1. Work Plan developed implemented
- 3.2. Work Plan implemented
- 3.3. Communication strategy and plan implemented
- 3.4. Reporting conducted
- 3.5. M & E Plan implemented (intermediate evaluation conducted)

4. Analysis

- 4.1. Data and results analysed (incl. information from monitoring)
- 4.2. Interventions and results evaluated (according to LogFrame)

5. Learning

- 5.1. Findings and lessons learnt captured and documented
- 5.2. Findings and lessons learnt shared (publications, internal reports)
- 5.3. Need of adaptation of plans (Strategy, Action Plan, LogFrame, Work and M & E Plan) assessed

6. Terminal evaluation: assess immediate and long-term impact

- 6.1. Outcome compared with the Goal and projection
- 6.2. Effect of the project assessed
- 6.3. Project revisited after defined period
- 6.4. Long-lasting impact of the project evaluated
- 6.5. Recommendations for further activities or projects made

3. Implementation

The purpose of this step is to fulfil Actions, according to the Work Plan, deliver outcomes and contribute effectively to the Results and Objectives. The Work Plan assists the implementation, helps setting priorities and reduces the risk of missing important tasks (Box 12). Actions and their progress are continuously captured according to the Indicators and the M & E Plan (Box 13). Data are continuously saved and analysed, and findings are regularly evaluated (e.g. intermediate evaluations).

4. Analysis

The importance of the analytic part of the APC (Fig. 9) depends on the focus of the project. But most conservation projects generate data of general and scientific interest, at least at the level of the monitoring towards the Objectives. Monitoring is however only useful if the information gained is properly analysed, interpreted and findings are reported. Even projects with no scientific questions need to make a quantitative or qualitative assessment of the Indicators measured in order to evaluate the project's performance, impact, and achievements compared to the Results, Objectives, and Goals. Like for a scientific project, the methods for capturing and analysing data (e.g. the Indicators) need to be considered in advance.

An early analysis of the data gathered according to the M & E plan allows for a reassessment of the Indicators to test the achievement of the Results. Indicators are most often formulated under certain explicit or implicit assumptions; an early preliminary analysis of the monitoring data may allow to test if these assumptions were correct. If not, an intermediate evaluation should be done to reveal if adjustments are needed at the level of the Result, Indicator, or Action. If a projection (e.g. of the future status of the target species in the project area) was made, continuous analyses of data will also allow adjusting the monitoring at the level of the Objectives. It is advised to do at least detailed mid-term evaluation for projects running over several years. The evaluation does not only compare the performance of Actions compared to the Results and Indicators, it includes a continuous observation of the assumptions, risks and opportunities with regard to the most efficient use of all available resources.

5. Learning

An important part of every conservation project is the "lessons learnt", hence the conclusions from monitoring and evaluation, which is done regularly during the project process and happening in parallel to the project implementation. It includes, beyond data analysis, the interpretation of the findings, which need to be elaborated and discussed with project partners and stakeholders. Controversies in conservation projects often do not arise over data collection or analysis, but over their interpretation and the conclusions.

In the learning step (Fig. 9), findings are shared, and the need for adaptation of the project plans is discussed. It is very valuable to capture and share not only success, but also failure. Faults are common and should be expected. Errors in planning, assumptions, definition of Indicators, etc. are project-internal issues to be discussed within the team, with the project partners and possibly with the donors. Structural or methodological setbacks however are lessons learnt that should be shared with a larger audience and with the entire conservation community, because such negative experience can help to make other projects more efficient.

6. Terminal Evaluation

The Terminal Evaluation (Fig. 9), conducted after the project's end, provides the ultimate "lesson learnt". It evaluates the immediate and the long-term effect of a project, e.g. the project's impact on the status of the cat species in the project area. The combined outcome of the completed project is compared with the original Goal and Objectives, but also with the expectations at the start of the project. The Terminal Evaluation compares the projected status of species with the actual status observed at the end of the project (Box 16). A shortcoming of many conservation projects is that their long-term impact is not known. If, for instance, a project had a major capacity development component, or if one Objective was to improve local livelihood, the lasting impact cannot

be judged immediately after the project came to an end. In many situations, it would be necessary to revisit the project after a certain period to evaluate the sustainability of certain Actions and Results. Revisiting the project three or five years after it ended provides a valuable final control of its performance; it should be planned, scheduled and budgeted already during the planning phase.



Plenary discussion at the National Action Plan workshop for cheetah and African wild dog, Chad 2015.

Box 16. Terminal Evaluation

The thorough final evaluation after a project's end is important. The Terminal Evaluation's aim is to summarise lessons learnt and hence assist the planning of future projects. It assesses the reasons behind success and failure. The Terminal Evaluation reviews the following points:

- Coherence of the project and alignment with other projects and conservation activities in the same area;
- Relevance of the project with regard to the logic and consistency of the intervention(s), based on the initial situation and developments during the implementation of Actions;
- Effectiveness of the project's interventions, with regard to the achievement of Results and Objectives;
- Efficiency of the project considering the cost-effect balance and the use of available resources;
- Impact of the project compared to the Goal and the Objectives and the long-term improvement of the situation of the conservation target;
- Sustainability of the project with regard to its effect on the conservation situation in the project area.

An Evaluation Matrix can facilitate the evaluation process by defining key questions and information needs (IUCN & SECO 2012, IUCN 2004 b, c, WWF 2005). An Evaluation Matrix shows the key evaluation questions for each Objective. For each question the information or Indicators, which are required to answer the question, are stated. For each Indicator, methods and frequency of data collection, resources, responsibilities and the type of analysis are noted. Ideally, this matrix is already created together with the M & E Plan.

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