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Basic Guidance for Cross-Cutting Tools: Conceptual Models

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Resources for Implementing the WWF Standards

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This document is intended as a resource to support the implementation of the *WWF Standards of Conservation Project and Programme Management*. Conceptual models are an important tool that can be used to help meet several steps of these standards; each project or programme team will have to determine whether this tool and associated guidance makes sense for them.

This document may change over time; the most recent version can be accessed at:

http://www.panda.org/standards/1_4_conceptual_models

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Conceptual Models

1. What Is a Conceptual Model?

A conceptual model is a visual method (diagram) of representing a set of causal relationships between factors that are believed to impact one or more biodiversity targets. A good model should explicitly link the biodiversity targets to the direct threats impacting them, the factors (indirect threats and opportunities) influencing the direct threats, and the strategic activities being taken to affect those factors. It will also usually indicate the points at which monitoring should take place, assumptions that have been made about causal relationships, and paths along which strategic activities can be used to change or positively influence these relationships. A conceptual model should be accompanied by a textual description that verbally explains the conceptual model. In summary, a conceptual model portrays graphically the situation at your site and provides the basis for determining where you can intervene with your strategic activities. Note that conceptual models are designed primarily for projects, but can be applied to programmes, though complexity can be a concern with larger systems or complex project sites.

Both conceptual models and logical frameworks (or logframes) can be used to describe the logic of your project. Conceptual models differ from logical frameworks (or logframes) in that a logframe only provides a hierarchical tabular record of a project's aims and activities (from inputs and activities to the desired outputs, objectives and goals), whereas a conceptual model often represents the entire system, including connections not being addressed through a project.

2. Why Conceptual Models Are Important

A conceptual model is one method (a visual one) of capturing what is happening at your site and where you might intervene to affect causal relationships. A conceptual model has the advantage of being visual and, when kept simple, can be easily followed from indirect threats and opportunities to direct threats to biodiversity targets. Because it traces back through the logical flow of influence, it can also allow partners, stakeholders, and other departments within a Programme Office or National Office to see how they are able to play an active role in conservation. Conceptual models are also powerful tools for workshops with partners and local stakeholders. Conceptual models have the disadvantage of often becoming too complex and becoming unmanageable (to avoid this, one rule of thumb is to have no more than 25 boxes or so on any one page). Also, while conceptual models are readily understood by many people, a small but non-trivial fraction of people in the world have a strong dislike of this visual way of thinking. Conceptual models are used by numerous conservation organizations and therefore allow sharing of work, especially in the context of ecoregion conservation.

3. When to Use It

A conceptual model can be used throughout the development of a conservation project or programme (or Ecoregion Action Programme), though it applies especially to Steps 1.2 to 1.4 and Steps 2.1 to 2.2

of the *WWF Standards of Conservation Project and Programme Management*. Development of your model is best initiated with the creation of biodiversity targets – the biological elements that make the system you’re interested in ‘special’ and worth saving. It should then capture the direct and indirect threats and opportunities, their links to one another, and how they influence the targets. In some situations, it can also be helpful to mark down the explicit stress (or the effect the threat has on the target), as well as the general result of the threat. Conceptual models can also be used effectively for thematic as well as site-based projects.

Finally, your conceptual model is useful to help develop your interventions – the strategic activities you will take to influence the factors affecting your direct threats and ultimately leading to the desired impact upon the biodiversity target. This strategy development can be done by either directly using your conceptual model or by converting parts of your model into results chains. Your model or your results chains can then also be used to develop and show your monitoring points and assumptions.

4. How to Develop It and Use a Conceptual Model

Your conceptual model serves as a tool to help you visually portray what is happening at your site and develop a plan for what you will do to influence your situation. Because conceptual models that graphically depict much of the work you have done in other stages (e.g., defining your scope, targets, and threats), we do not explain how to develop all of the inputs that go into a conceptual model. Instead we refer you back to the main guidance materials for each of those inputs.

The steps below provide a step-by-step method for completing a conceptual model. The first level numbering for these steps corresponds with the major steps in the *WWF Standards of Conservation Project and Programme Management*. To illustrate this example, we have used a real-world example adapted from a model developed by a WWF team working at a tropical forest site.

This exercise is best done with a project team or in a workshop setting using post-it notes and a flip chart or other set-ups that will allow you to add, delete, and move around factors. You can then capture the results using flow-charting software such as Microsoft Visio or using the drawing tools in MS Word or Powerpoint.

Step 1.2. Scope and Vision

Your first step in a conceptual model involves placing your project scope to the far right of the model. You can also link your vision directly to the project scope, as shown in Figure 1.

Figure 1. Scope & Vision for Tropical Forest Site



Step 1.3. Targets

Next, as shown in the right hand part of Figure 2, you should add your biodiversity targets to the scope area, since your biodiversity targets are the species, habitats (ecological systems), and/or ecological processes that you have chosen to represent and encompass the full suite of biodiversity at your project area. (Click here for [Basic Guidance on Biodiversity Targets](#)).

Step 1.4. Context and Stakeholders

Direct Threats

Your conceptual model helps you graphically display much of the information you collected in your situation analysis – the direct threats influencing your biodiversity targets, the factors (including indirect threats and opportunities) that are influencing your direct threats, and who some of the actors behind those different factors are.

To continue building off your conceptual, you should first add your direct threats to the left of your biodiversity targets, as shown in the right hand side of Figure 2.

Factors: Indirect Threats and Opportunities

In your situation analysis, you’ve also done a lot of thinking about what factors are driving to or leading to the direct threats that are affecting your site. At this point, you are now read to add those other factors to your model. You should work from right left to place each of the factors in your model. For example, your team should ask itself, what is causing the direct threat of gas and petroleum exploration? You might identify several factors including, government incentives and policies, interests of transnational companies, and deception of surrounding communities. You should then ask what are the factors driving those indirect threats and so on, working to the left until your model is reasonably complete Figure 3). Note: At all times, every box recorded in your model should connect to one or more of your biodiversity targets. Similarly, by the time it is completed, the conceptual model should reflect potential paths along which you will establish your project or programme goals and objectives.

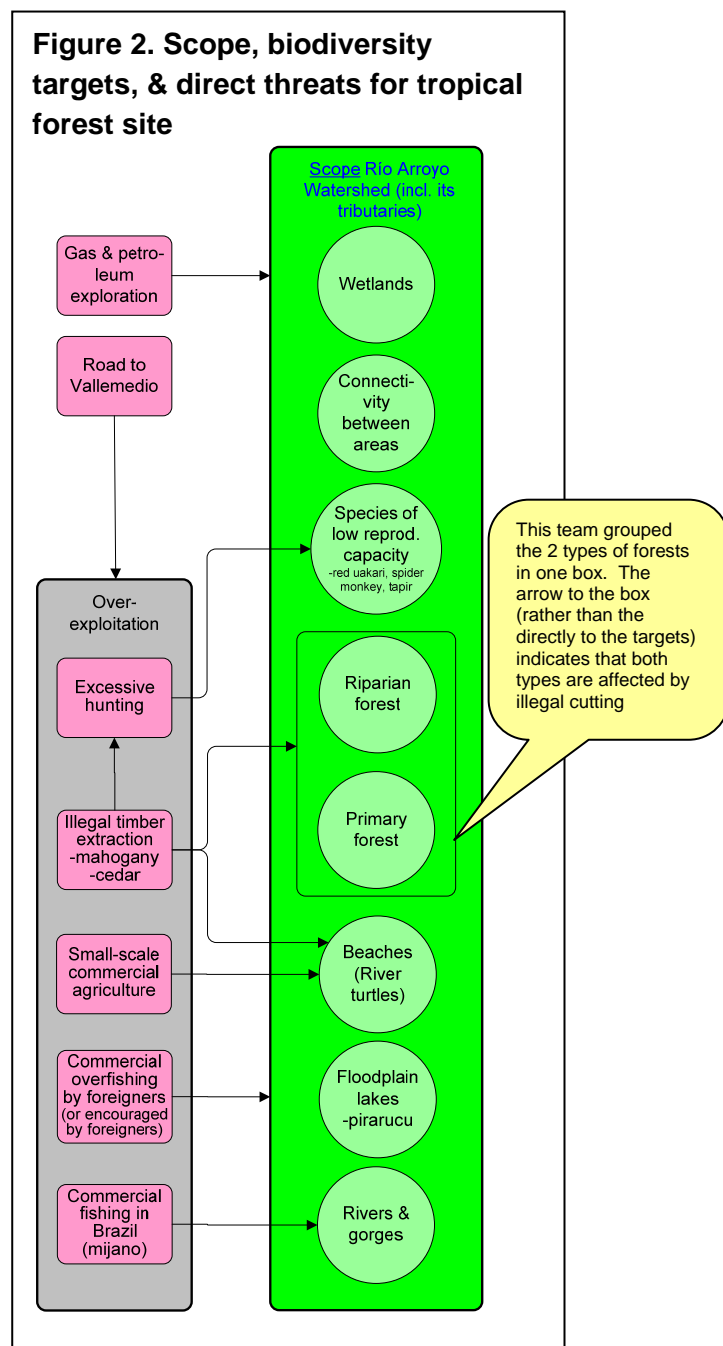
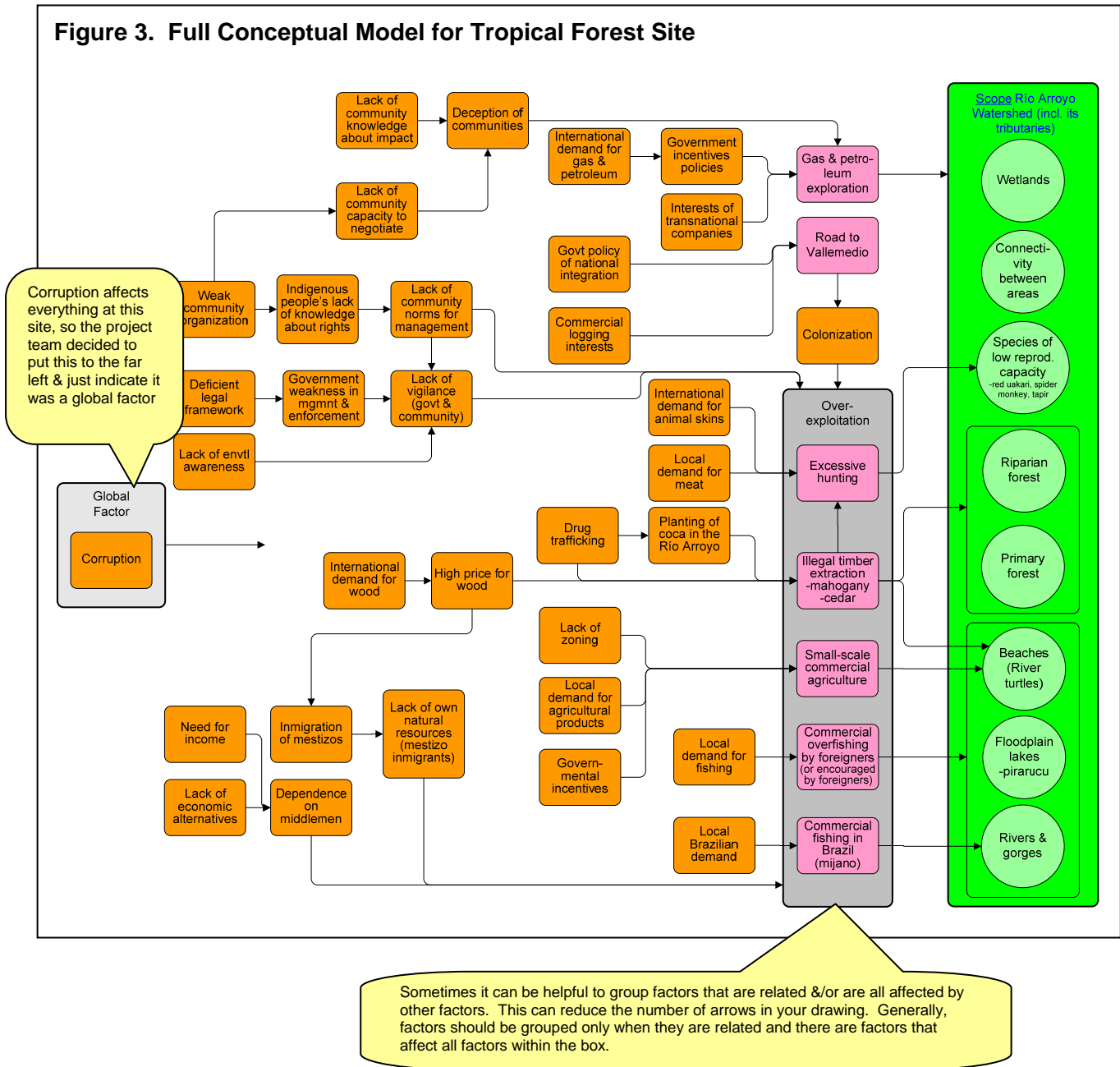


Figure 3. Full Conceptual Model for Tropical Forest Site



Although the process may seem straightforward, you will find that you and your project team will have some lively debates about what should go where. You also may debate about how much detail to include. The model above is probably at the upper end of detail that should be shown in one model. A general rule of thumb is to keep your models to 25-30 boxes total. A final word on conceptual models – don't strive for perfection; strive for a product that will help you and your project team members effectively communicate what is happening at your site and decide what to do in a strategic fashion.

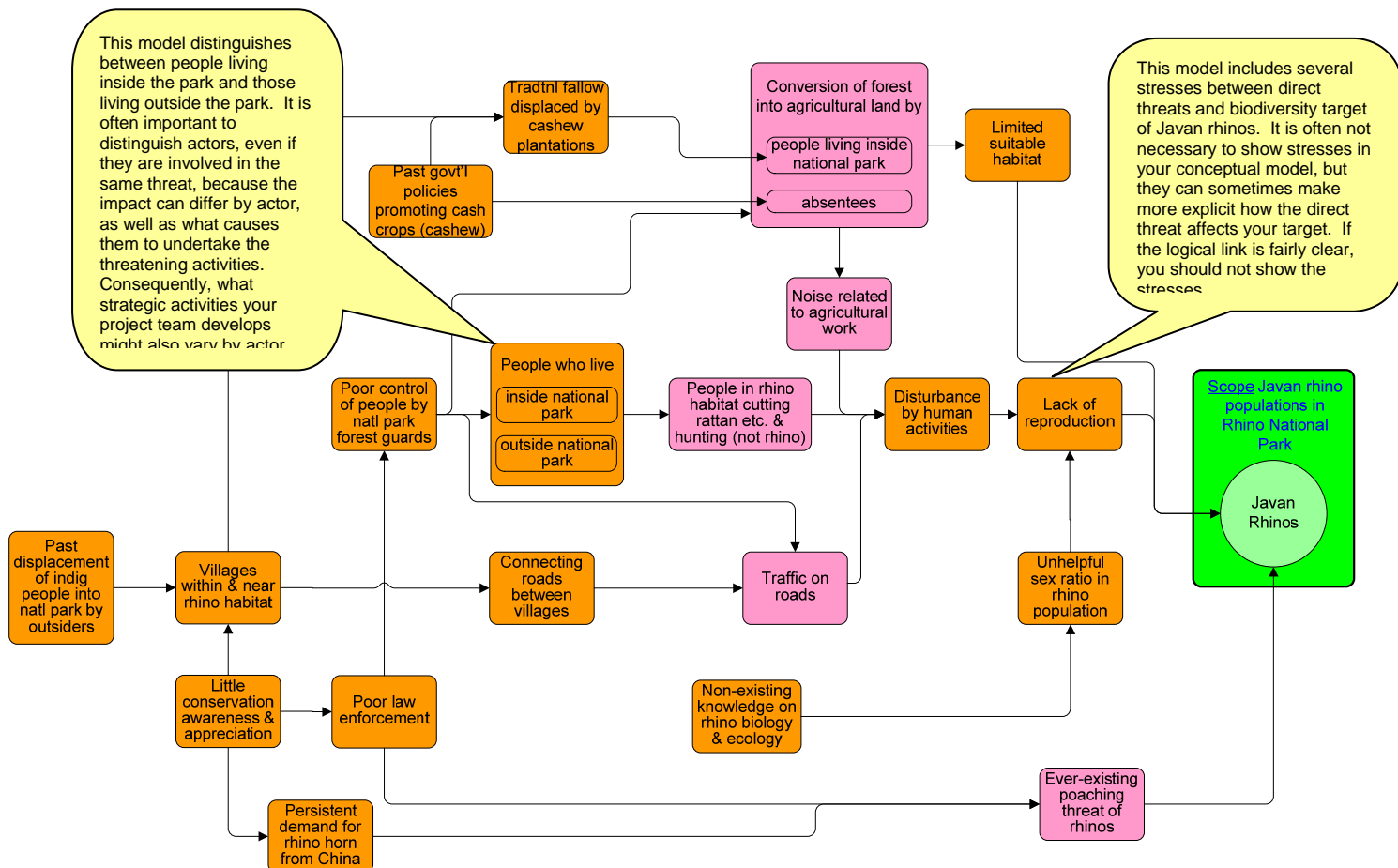
Using a Conceptual Model

A conceptual model is one of the most helpful and versatile tools you will use for your project planning. The process of building a conceptual model with your project team helps all team members explicitly state their assumptions about what is happening at your site and collectively come to an understanding about your site and what you need to do as a team. The model itself is a useful communications tool for your project team, as well as for people outside of your project. It provides a quick, easy-to-understand overview of your project site and the rationale for your project’s goals, objectives, and strategic activities. A conceptual model also provides you with the building blocks for developing results chains – a tool that helps make explicit the logical sequences that link your strategic activities to your targets, in a more detailed fashion than is realistically possible with a conceptual model. Your project team should revisit your conceptual model at least once a year to determine if there are any new threats or factors (or ones that you may have missed in your earlier model) that are now affecting your targets. If so, you will need to make decisions about if and how you will address them.

5. Example

Our earlier example came from a site-based project, but you can also use conceptual models effectively for species-focused projects and programmes. Below is an example based on a real-world model developed by a WWF project team seeking to protect Javan rhinos.

Figure 4. Conceptual Model for Javan Rhinos in Rhino National Park



6. References

Margoluis, Richard, and Nick Salafsky. 1998. [Measures of Success: Designing, Managing, and Monitoring Conservation and Development Projects](#). Island Press, Washington, D.C.

The Nature Conservancy. 2005. *Conservation Action Planning -- Developing Strategies, Taking Action, and Measuring Success at Any Scale: Overview of Basic Practices*.