| **Template 5C: Specifying additional supporting analyses – find explanations below** |
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| **Type of study or analysis** | **What is the purpose of the analysis or study?** | **Which questions need to be addressed by the analysis or study?** | **Which approach method and data could be used?** | **Who could do the analysis?** |
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| **Ecological analysis** can help key actors understand and appreciate the problems associated with the current situation and to accept the need for conservation efforts. It provides evidence of bio-physical relationships between drivers of ecosystem change and (the loss of) biodiversity and ecosystems. For instance, analysis can demonstrate the effects of forest conversion on the occurrence of flood and drought events, on sedimentation rates, or on carbon sequestration. Ecological studies can also be necessary to understand the effectiveness of different management options (e.g. conservation activities or agricultural management schemes) on biodiversity and ecosystem services provision or other relevant environmental indicators (e.g. quality of water, soil or air).In some cases, it can be useful to conduct an **ecosystem services valuation** to illustrate how changes in ecosystem service provision affect the wellbeing or economic values (damage, benefits, etc.) of relevant stakeholder groups. Such studies typically require interdisciplinary work on ecosystem services, linking bio-physical and socio-economic analyses. Consider for instance the effects of an increase in watershed forest cover from 10% to 20%, of a change from cash crop monoculture to agro-forestry, or of removing an agricultural subsidy, or of a new law allowing no livestock within 100m of a river to reduce bacteria. These analyses must determine the ecological effects of different management options before assessment is possible of the resultant ecosystem service provision and its effects on the wellbeing of different stakeholders. It will be crucial to use appropriate indicators, both for bio-physical and socio-economic analysis and to gain access to the necessary data. Should economic valuation of ecosystem services be applied, then the choice of appropriate valuation technique(s) is crucial for generating credible and useful results. Valuation methods are chosen depending on the problem statement, the type of ecosystem service, and the local cultural context. It is difficult to make general recommendations. The valuation expert will have to be aware of the merits and limits of different methods and select the approach that best suits the situation and purpose at hand.Another type of study is **market analysis**. Before introducing an innovative ecological product, a market analysis of its sales potential and distribution channels for ecological products may be required. Or you may want to determine the potential of a product certification scheme (eco-label) and consumer demand for a certified product, or identify options for joining existing certification schemes.**Cost assessments** are an additional type of useful analysis. Sometimes **direct costs** have to be estimated to work out the financing of proposed activities (e.g. reforestation, wetland restoration, change to organic agriculture, wildlife monitoring), or to weigh the cost-effectiveness of different options. Determining **opportunity costs** is frequently useful when the economic instrument (e.g. a PES scheme) involves motivating providers of ES to forego more profitable activities (e.g. monoculture land use, pesticide use, exploitation of forest resources, or over-fishing). Knowing opportunity costs can help understand the barriers to participation in the economic instrument and how to motivate ES providers to participate. In some cases, this motivation may be financial, in which case the opportunity costs can help to decide how much should be paid.**Legal analyses** can be important, especially when the legal situation regarding land use or property rights is unclear, or when you have to decide which legal entity (such as associations, cooperatives, or a limited liability corporation) is most suitable to be part of the proposed institutional arrangement. Finally, other types of studies, such as an analysis of the workings of specific institutions (e.g. water or agricultural authorities), or the assessment of community norms that currently govern resource use, can also play an important role. |