REVIEW FORM

- **REVIEWER´S NAME: BEC STÉPHANE (UNIVERSITÉ GRENOBLE ALPES)**

- **DOCUMENT TYPE:**

I. General document	II. Standard	III. Procedure	IV. Methodology	V. Support
			✓	

(Select the type of document with " ✓ ")

- **DOCUMENT NAME: METHODOLOGY FOR ASSESSING THE IMPACT OF BIODIVERSITY**

- **VERSION: V1.0**

COMMENTS:

No.	Section	Comment
1	**Introduction -**	**''and their ecosystems as well as creating new habitats''. if the creation of new habitat is an element of evaluation of the impact of the project on biodiversity, we can tend to replace species which will not result in an increase in biodiversity index.**
2	**V – p12 – line 3**	**''the species must be re-invented'' ? Re-inventoried**
3	**V – p12 – line 10**	**Hmax = log2S if we use this log base in the calculation of H**
4	**V.1.1**	**specify in the formula that Hmax = log2 S**
5	**V – Quantification**	**Justification for the third stage of the inventory 1 year after the end of the project. Little change expected in only 1 year for fauna and flora. A post-project inventory at Y+3 or 5 may be more relevant.**
6	**VI.2 – Table7**	**insects are no longer included in animal inventories. Is this voluntary? e.g. in response to the difficulty of inventorying this group?**
7	**IV.2.1 – potential distrib**	**The IUCN Red List...' not the right scale. IUCN is interesting for the conservation status of the species but not relevant for the distribution of the species (or else distribution on a very large scale, which is not relevant for the scale of the projects).**

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8	**IV.2.3 - Degradation threshold**	**Link between the degree of degradation and %VU species IUCN. Is this a good proxy to quantify the degradation of an environment? At the local scale, a very disturbed environment may only affect LC species. And therefore will emerge with a low degree of disturbance. IUCN: global scale vs. disturbance affecting communities at the local scale.** **For fauna and flora, disturbance is translated in terms of mortality. Difficult to apprehend if the degree of disturbance is done in pre-project. Characterizing a degree of disturbance at T0 based on fauna/flora inventory seems difficult. One of the characteristics of disturbed communities is, for example, their vulnerability to IAS. See if this entry can be dug. Or the proportion of different bio-types for the flora (if degradation, there will be less arboreal types).** **But the best way to understand the degradation is the characterization of the disturbance agents.**
9	**IV.2.3 - Degradation threshold**	**Taking into account the IUCN status is nevertheless relevant and was precisely what I missed during the inventory phase.** **But rather than a proxy for a state of disturbance, propose instead the characterization of a conservation/reglementation status of the site. But I don't know how to include it in the VBCC approach**
10	**general remark on the status of the species considered**	**No consideration of the conservation or regulatory status of the species present before the project > we can have an increase of the H while regulated species have been destroyed, or are in decline.**
11	**General remark on inventories – III.2.1**	**' identifying the types of plants and animals (birds, mammals, reptiles, amphibians, fish, insects,etc) that are present for each ecological community' and by aiming at a level of taxonomic identification to the species (the selected indicators (species richness, biodiversity index) require this taxonomic level.** **> The aim here is an exhaustive inventory (all species present (all taxa) inventoried and identified). And it is only on this condition, for all the inventories (ante- project -post) that conclusions will be possible. The indices must be calculated on the same inventory effort (here, on the exhaustiveness).** **If exhaustiveness can be envisaged for certain taxa (plants, mammals, birds, amphibians, reptiles), it seems unattainable for insects (which nevertheless correspond to a relevant taxon for estimating an impact on biodiversity).** **> Without specifying more protocol for the inventories, we will**

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		end up with strong sampling effects and the values drawn from the comparisons (e.g. H index ante and post) will not necessarily be related to the project but more to the sampling or the inventory capacities.
		> For birds, propose standardized protocols (e.g. STOC France protocol), as well as for chiropterans and insects...
		We cannot aim for exhaustiveness, but aiming for standardization in the methods to be used may be relevant.
		These methods can include for example :
		- molecular inventory methods (advantage, no observer/sampler bias)
		- methods that do not involve taxonomic identifications for difficult groups but rather the characterization of habitats (e.g.: Potential Biodiversity Index (Centre National de la Propriété Forestière)
12	General Remarks on bibliography	Not many bibliographic references in the whole methodology section. Some protocols or points would deserve to be supported by references. But maybe this is a characteristic of this type of documents.

DATE: **2023-02-15**

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