Ambitions in national plans do not yet match bold international protection and restoration commitments

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ABSTRACT

Almost 200 nations have made bold commitments to halting biodiversity loss as signatories to the Kunming-Montral Global Biodiversity Framework ('GBF'). The effective achievement of the GBF relies on domestic targets and actions, reflected in National Biodiversity Strategies and Action Plans ('NBSAPs'). NBSAPS are an integral feature of the CBD framework with signatory nations requested to submit revised NBSAPs prior to COP16 incorporating the GBF goals and targets. Here we review NBSAPs of the 20 countries that have submitted to date and assess their commitments to implementing Target 2 (the 30% restoration target) and Target 3 (the '30 x 30 protection target'). By first breaking these targets into their constituent elements, and assessing the detailed wording of each NBSAP, we discover that no nation has created a plan that meets all the requirements – and overall ambitions - of these two targets. With six years remaining until the intended realisation of the GBF, countries will need to increase both their ambition and action if Earth's biodiversity crisis is to be abated.

MAIN

The Kunming-Montreal Global Biodiversity Framework ('GBF') was adopted in late 2022 by the Conference of the Parties ('COP') to the Convention on Biological Diversity ('CBD') [1] and is considered the most ambitious agreement on biodiversity conservation and sustainable use to date. The passage of the GBF represented an important step forward for international biodiversity policy, as it was the first time that quantitative targets for biodiversity conservation have been set [2], and it represented a shift from actions to outcomes [3]. In particular, the GBF sets out four key goals, broken down into 23 targets for action [4], with the most prominent being Target 3 (the '30 x 30 protection target'), and Target 2 (the 30% restoration target) [5]. The Targets are accompanied by a sense of urgency: Section H of the GBF states that 'actions set out in each target need to be initiated immediately and completed by 2030'. However, both targets leave significant scope for domestic interpretation, which could result in strong or weak implementation [6,7].

While environmental agendas are often first defined in international fora, it is primarily through national policy and strategies that these agendas are put into action [8-10]. In the biodiversity context, these national policies can be discerned from the National Biodiversity Strategies and Action Plans ('NBSAPs'). These are an integral feature of the CBD framework, which requires contracting parties to develop national strategies for implementing the convention (CBD, Article 6) to articulate national level biodiversity targets and their alignment to the Convention objectives. Ideally, NBSAPs should have high-level support from policy makers (e.g.,

49 legislators and country leaders) and be the product of cross-ministerial cooperation (CBD
50 2022b).
51
52 The success of international targets depends heavily on these national strategies and their
53 subsequent implementation, but there have historically been gaps between the targets espoused
54 in international agreements and domestic responses [10-12], both in the expression of the targets
55 in domestic instruments [13] (the 'ambition gap'), and/or in actual on-ground implementation [14]
56 (the 'implementation gap'). For this reason, previous international biodiversity targets like the
57 Aichi Targets [15] have not been realised [13,16,17].
58
59 With COP16 looming and almost two years elapsed since the adoption of the GBF, it is timely
60 to consider whether the GBF targets are on track to be achieved by signatory nations. Critically,
61 the GBF was accompanied by a request that contracting parties revise and update their NBSAPs
62 prior to COP16, incorporating the GBF goals and targets [18]. With 20 revised NBSAPs
63 submitted (as of 9 September 2024) (See Fig. 1), a picture is beginning to emerge of how
64 countries intend to integrate these Targets domestically. Here we review these 20 NBSAPs to
65 analyse domestic commitments to implementing Targets 2 and 3 of the GBF. Specifically, we
66 considered the extent to which the 20 NBSAPs addressed all elements of Targets 2 and 3, and
67 also whether they outlined specific actions to implement Targets 2 and 3 (see Fig. 2).
68
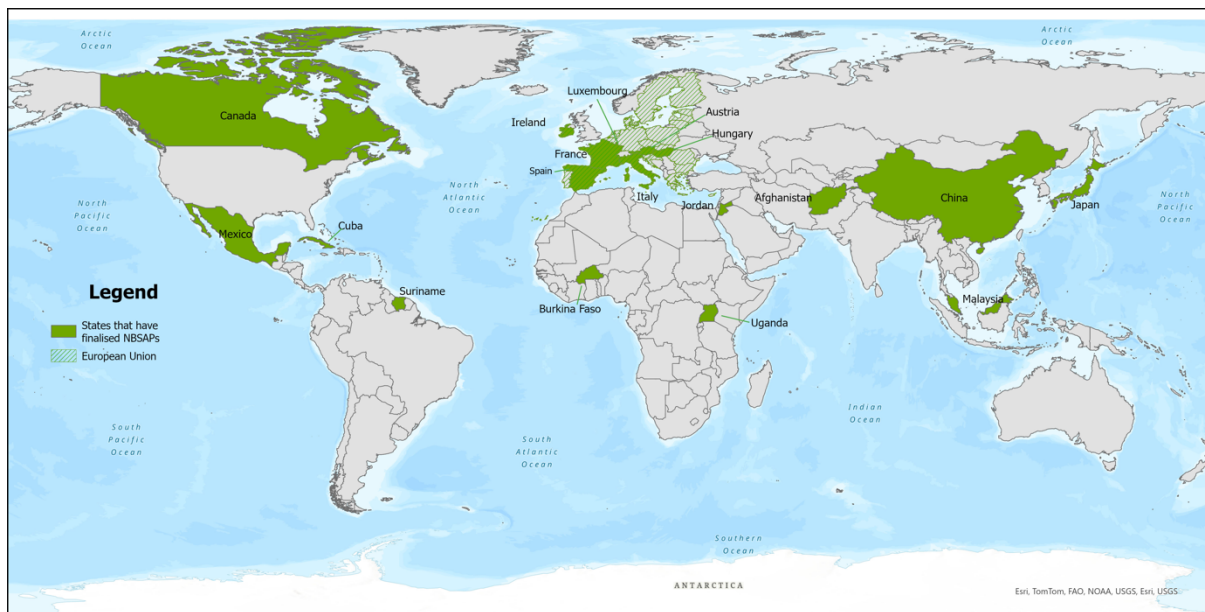
71 Figure 1. Countries that have submitted revised NBSAPs (pre-9 Sep 2024). Note the European
72 Union has also submitted an NBSAP, and it is considered as one of our 20 sample NBSAPs.
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74
75 **RESULTS AND DISCUSSION**
76
77 Overall, we found that none of the NBSAPs comprehensively addressed all elements of Targets
78 2 and 3, nor did any outline a clear plan to operationalise them. While most NBSAPs mentioned
79 the GBF, only six (30%) explicitly mapped their commitments against the GBF targets (Ireland,
80 Canada, Cuba, Mexico, Republic of Korea, Afghanistan), so subjective judgements were made
81 in the remaining 14 NBSAPs regarding which content related to Targets 2 and 3 (see
82 supplementary Table 1 for detailed breakdown). Here we discuss how the NBSAPs treated
83 each element of Targets 2 and 3 (See Fig. 2).

84

85

Criteria for assessment of Targets 2 and 3

	Quantitative elements	Qualitative elements	Land and water	Key terms and baselines	Actions
Target 2 *Ensure that by 2030 at least 30 per cent of areas of degraded terrestrial, inland water, and coastal and marine ecosystems are under effective restoration, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity.*	• Is there a commitment to a % target? • If so, what is it?	• Does it require restoration to be done 'in order to enhance...'?	• Is there a commitment to action across terrestrial, inland water, and coastal and marine ecosystems?	• Is 'degraded' defined? Is there a baseline, and what is it? • Is 'under effective restoration' defined?	• Does the NBSAP outline specific actions to be undertaken to meet commitments?
Target 3 *Ensure and enable that by 2030 at least 30 per cent of terrestrial, inland water, and of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures, recognizing indigenous and traditional territories where applicable, and integrated into wider landscapes, seascapes and the ocean, while ensuring that any sustainable use, where appropriate in such areas, is fully consistent with conservation outcomes, recognizing and respecting the rights of indigenous peoples and local communities, including over their traditional territories.*	• Is there a commitment to a % target? • If so, what is it?	• Does it require protection of areas 'of particular importance...'?	• Is there a commitment to action across terrestrial, inland water, and coastal and marine ecosystems?	• Is 'effectively conserved and managed' defined?	• Does the NBSAP outline specific actions to be undertaken to meet commitments?

86
87 Figure 2. Broad criteria and elements used to assess each NBSAP's inclusion of Targets 2 and
88 3.

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90

91 **Quantitative elements**

92

93 The inclusion of a clear quantitative element is seen by some as critical to ensure a high level
94 of ambition when it comes to conservation target setting [19,20]. Both Targets 2 and 3 include a
95 quantitative element of 30% by 2030.

96

97 But despite this, in terms of restoration, we found that only four NBSAPs (20%) made a broad
98 commitment to restore ecosystems expressed as a percentage (Luxembourg, Japan, China,
99 Uganda). Of these four countries, three have committed to restore 30%, or at least 30%, of
100 ecosystems. The fourth country, Uganda, committed to restore 15%, but by 2020 rather than
101 2030. Some other countries committed to a percentage target of particular habitat types. For
102 example, Austria committed to 30% of priority floodplains but does not set a target for other
103 areas and habitat types. Cuba set some specific targets for beaches (i.e. 100% of beaches in a
104 National Rehabilitation Program), forest areas (20%), and mangroves (12,000ha). Similarly,
105 the Republic of Korea committed to restoring 30% of 'priority areas'. A number of countries
106 also express their commitment in terms of hectares: for example, Hungary set out hectare
107 targets for different ecosystem types (including wetlands, permanent grasslands, and forest
108 ecosystems), and Malaysia committed to having 200,000 ha of degraded sites being actively
109 restored by 2030. Other countries were less explicit in their commitment. For example, Italy
110 simply committed to ensuring that 'large surfaces of degraded [ecosystems] are restored', and
111 Suriname acknowledged that restoration is very new in their country and committed to actions
112 to set priorities and procedures for restoration prior to initiating any works. Other countries
113 have simply referred to work already undertaken to restore areas (e.g. Jordan, Canada), or the
114 pending European Nature Restoration Law as a means of facilitating restoration (France, EU).

115

116   There was a far stronger trend of countries committing to quantitative protection targets, with
117   13 NBSAPs (65%) including a target for protected areas expressed as a percentage. This is
118   perhaps unsurprising given the history of percentage targets being set for protected areas in
119   previous CBD strategic plans [21] and the creation of the 'high-ambition coalition' which now
120   has 119 nations committing to financing '30 by 30' [22]. Of these 13 countries, nine have
121   committed to restore 30% or at least 30%. The remaining four have committed to a lower target
122   (Cuba has committed to 13%, Malaysia to 20% of land and 10% of water, Afghanistan at least
123   10%, and Uganda 17%).
124
125   **Qualitative elements**
126
127   The inclusion of qualitative elements alongside areal percentages is seen as critical to ensure a
128   high level of ambition when attempting to achieve targets [23,24]. This is because protection
129   and/or restoration of 30% of the Earth could make an enormous difference to biodiversity
130   outcomes—or alternatively, it could make little difference, depending on the extent to which
131   the protection or restoration action is focused on those important biodiversity areas that need
132   these activities [3,6,25,26].
133
134   Target 2 contains qualitative text directing that restoration be undertaken 'to enhance
135   biodiversity and ecosystem functions and services, ecological integrity and connectivity', yet
136   we found that none of the NBSAPs surveyed adopted that specific language. Some NBSAPs
137   used different forms of qualitative language, either by making some reference to biodiversity
138   or ecological values throughout the text, or through implying that biodiversity will be an
139   objective of restoration (e.g. Hungary refers to 'natural values', Ireland and France refer to
140   biodiversity, China refers to 'ecological corridor connectivity', Republic of Korea refers to
141   'ecological values'). Some NBSAPs expressed a preference for restoration in areas with carbon
142   sequestration potential (EU, Austria, Italy), while some did not address the intended object of
143   restoration at all (e.g. Spain, Japan, Suriname, Cuba, Burkina Faso, Malaysia).
144
145   In contrast, approximately half (n=11, 55%) of the NBSAPs include a qualitative element in
146   their interpretation of Target 3, although, again, not necessarily using terminology that mirrors
147   the GBF framing. For example, the EU NBSAP committed to protect areas with a specific
148   focus on 'areas of very high biodiversity value or potential', and the Republic of Korea referred
149   to 'areas of high ecological value'. Some European country NBSAPs committed to at least
150   30% total with 10% in strict protection and referred to that 10% as being areas with high
151   biodiversity value (e.g. Luxembourg, Austria). Cuba made a commitment to undertake further
152   studies to ascertain the biodiversity values of areas prior to choosing where to expand the
153   protected area estate.
154
155   The lack of engagement with the qualitative targets is concerning given past experiences [27].
156   Even if countries embrace the quantitative aspect of the targets – which as we outlined above,
157   is not universally occurring – this will not automatically translate to good outcomes for
158   biodiversity. For example, while countries embraced the quantitative components of the Aichi
159   targets, particularly in relation to protected areas (Maxwell et al., 2020), most countries tended
160   to focus on increasing the size of the terrestrial protected area estate rather than addressing the
161   qualitative elements (e.g. management effectiveness and ecological representativeness)
162   (Convention on Biological Diversity 2022a).
163
164   **Covering land and water**
165

Historically, marine and coastal areas have lagged behind terrestrial areas in both protection (Alger and Dauvergne 2017) and restoration (Abelson et al. 2020). The reasons for this are multifactorial including cost and difficulty (Bayraktarov et al. 2016) and complex legal and governance arrangements (Saunders et al. 2024). However, these areas offer critical ecosystem services including carbon sequestration at higher rates than terrestrial environments (Mcleod et al. 2011), coastal protection and water quality enhancement (Hagger, Waltham and Lovelock 2022), and food and livelihoods for billions of people globally (Vianna, Zeller and Pauly 2020). To overcome these biases, both Targets 2 and 3 make specific reference to terrestrial areas, inland waters, and marine and coastal areas, to ensure protection and restoration is not limited to just terrestrial activities. Target 3 expresses these as sub-goals: at least 30% of terrestrial and inland water areas, *and* marine and coastal areas. The CBD Secretariat has expressed that the 30% target therefore applies independently in each domain [28]. However, it is not clear in the restoration target whether effort must be spread across ecosystem types, or whether action can be concentrated more heavily in one (e.g. terrestrial) [7].

Of the 20 NBSAPs we analysed, 13 (65%) made some reference to restoring different ecosystem types, and 14 (70%) to protecting different ecosystem types. Of these, only a few were explicit about how effort should be distributed: for example, Hungary's NBSAP set out hectare targets for restoration of different ecosystem types (including wetlands, permanent grasslands, and forest ecosystems). Other NBSAPs make explicit commitments only in relation to specific areas: for example, France, Afghanistan and Burkina Faso set targets for wetlands. A number of NBSAPs simply adopt the GBF language of 'terrestrial, inland water, coastal and marine' (e.g. China), without specifically committing to spreading action across these different ecosystem types. It is therefore unclear from NBSAPs at this stage whether effort is intended to be spread across land and water.

Inclusion of key definitions and baselines

In both Targets 2 and 3, there are key adjectives ('under effective' and 'effectively conserved and managed') that are intended to ensure protection and restoration actions achieve their intended outcomes. However, it is impossible to evaluate whether the GBF Targets have been effectively achieved without articulation of some criteria for effectiveness, and a requirement for measurement against those criteria. Some have argued that if effectiveness is not measured, an activity should not be counted [29], and the interpretation of these terms at the national level is therefore critical [7].

None of the NBSAPs surveyed explicitly set a metric for 'under effective' restoration, although some indirectly address this by referring to restoring ecosystems to a 'favourable conservation status' (Luxembourg), or 'at least good ecological status' (Ireland). This is problematic as, in the absence of guidance, this can be interpreted in wildly different ways. For example, there is evidence of habitat conversion occurring under the guise of 'restoration', which can have detrimental impacts on biodiversity [30].

The NBSAPs we surveyed fare better in addressing effective management of protected areas. While none of them explicitly set metrics for 'effectively conserved and managed', 15 of them (75%) include commitments to developing management standards or objectives, often at the site-specific scale.

213

214 Target 2 also implies the need for a baseline by referring to the restoration of 'degraded'
215 ecosystems: an area cannot logically be classified as 'degraded' unless it is considered in
216 comparison to an earlier, less degraded state [7] While there is some debate regarding the
217 appropriate framing of baselines [31,32], they are critical to evaluations of success and
218 effectiveness. Fourteen (70%) of the NBSAPs surveyed use the term 'degraded', but none of
219 them define the term. Only two of the NBSAPs address the definitional issue at all: Canada's
220 NBSAP noted that Canada does not have a national definition for 'degraded' (nor 'effective')
221 and aims to address this by establishing a baseline of degraded ecosystems. Similarly, the
222 Republic of Korea committed to conduct a survey of land by 2027 to obtain a baseline of
223 'degraded' areas. Of the remaining five NBSAPs, Luxembourg refers to 'habitats and/or
224 species with an unfavourable situation', and the rest do not refer to a baseline at all. Without a
225 stocktake of 'degraded' areas within a country, it is unclear how quantitative commitments to
226 restore 'degraded' areas can be operationalised.

227

228 **Putting ambition into action**

229

230 Fundamental to NBSAPs success is not just the setting of national level targets, but the
231 operationalisation of them (CBD 2022b). Yet, we found no country has set out a fully formed
232 spatially explicit plan to meet Targets 2 and 3, designating particular areas to be restored and
233 actions to be taken to implement restorative interventions. For restoration, most countries
234 instead refer to the need for further work, including development of an additional strategy or
235 plan setting out further detail on restoration (Spain, Luxembourg, Japan, Ireland), or setting of
236 priorities and/or identification of sites for restoration (China, Austria, Canada, Italy, Suriname,
237 Malaysia, Cuba, Republic of Korea). The situation is similar with protected areas, with
238 NBSAPs referring to updating planning (Austria) and priorities for new protected areas
239 (Afghanistan), identifying areas for new protected areas (Republic of Korea, Malaysia,
240 Suriname, Italy, Ireland), and analysing gaps (Cuba).

241

242 Overall, many of the NBSAPs can be divided into two broad categories: first, those that adopt
243 ambitious, aspirational goals (e.g. 30% restoration and protection targets) but do not set out
244 specific, measurable and realistic plans to achieve them. The Chinese NBSAP is an example
245 of this category. In the parlance of 'SMART' planning theory [5,33-35], these nations achieve the
246 A (i.e. "Ambitious") component of good planning but not the other components. The second
247 category comprises NBSAPs that have less ambitious goals, but have outlined specific,
248 measurable and realistic actions to achieve them. For example, the Canadian NBSAP does not
249 make percentage commitments to restoration and protection, but sets out very detailed actions
250 for governments to take, including setting benchmarks for 'degraded' as a precursor to setting
251 targets. The Suriname NBSAP is another example of specificity, as it assigns responsibility to
252 particular agencies, and provides estimated costs of every action. These nations do not meet
253 the 'A' criteria in SMART but are closer to achieving the other components that make a good
254 plan ("Specific", "Measurable", "Realistic" and "Timebound").

255

256 In the first category – those ambitious NBSAPs that lack detail – we are concerned an
257 implementation gap may emerge, as some ambitious targets are obviously set without
258 considering what is possible. For example, a recent study highlighted that Indonesia has
259 previously pledged to restore 600,000ha of mangroves to support the Sustainable Development
260 Goals. However, there is likely only ~200,000ha of mangroves in Indonesia that are suitable
261 for restoration (Sasmito et al. 2023). Given that very few nations use the specific qualitative
262 language from the GBF targets, similar mistakes may occur with these ambitious nations.

263
264 The second category could give rise to an ambition gap. Of the 20 NBSAPs surveyed, only
265 nine have agreed to protect at least 30%, and four have agreed to restore at least 30%. Other
266 countries have set more modest goals or have not quantified their ambition as a percentage. It
267 is acknowledged that the GBF targets are collective goals and theoretically they could be
268 achieved at the global level by some countries doing less while others do more. However, only
269 a handful have used the terminology of 'at least 30%', and these countries may need to
270 overshoot 30% domestically by a significant margin to compensate for the more modest
271 ambition of the remaining NBSAPs.
272
273 These emerging gaps draw parallels with the international climate change legal framework,
274 where there are gaps between the agreed-to target, and the mechanisms to achieve this target.
275 For example, the Paris Agreement set an ambitious target (i.e. stablishing temperature increase
276 to 2C with an aspirational goal of 1.5C), but the ability to achieve this depends upon countries
277 both agreeing to take the necessary domestic action to achieve this target in their Nationally
278 Determined Contributions (NDCs), and then actually taking that action. This has resulted in a
279 so-called 'emissions gap', defined as 'the discrepancy between pledged GHG emission
280 reductions and the reductions required to align with the Paris Agreement' (UNEP 2023). In
281 particular, UNEP's most recent emissions gap report found that commitments currently made
282 in unconditional NDCs will, if actioned, lead to an estimated 2.9C of warming – a clear gap
283 from the 2C target. There is also an 'implementation gap', which is the difference between
284 commitments that have been made in NDCs – which are already insufficient – and actual
285 national policies in place to address climate change (Roelfsema et al. 2020). As it appears that
286 CBD signatory nations are following a similar pathway in their efforts to abate the biodiversity
287 crisis, potential lessons can be learnt from the climate process. In the climate context,
288 significant effort has been to afforded to identifying which nations are leading and lagging in
289 their NDC goals [36,37], and which countries continue to detract from the achievement of climate
290 targets through their emissions [38]. As this has led, in part, to nations changing their approach,
291 similar efforts should be encouraged in the biodiversity realm to hold nations to account for
292 their NBSAPs.
293
294 **CONCLUSION**
295
296 With COP-16 looming and only six years remaining until the intended realisation of the GBF
297 targets, the sample NBSAPs analysed here paint a bleak picture of the prospects for achieving
298 Targets 2 and 3. It may be that the portion of the NBSAPs considered are not reflective of what
299 other nations are likely to submit. But given these nations we have considered have taken the
300 CBD's call seriously to submit a NBSAP before COP-16, we find this unlikely.
301
302 As it stands, very few countries have committed to the quantitative restoration target, and only
303 two-thirds have quantified their protection target. Of potentially more concern is the attention
304 to the qualitative aspects of Target 2 and 3 within NBSAPs, which varied considerably. Our
305 review points to a significant chance of nations repeating past mistakes, where the quality
306 components of area-based targets of the Aichi Targets were consistently ignored [27,39,40]. In
307 addition, the lack of engagement with the key terminology in Targets 2 and 3, including around
308 effectiveness and definitions of 'degraded', means that monitoring and reporting of actual
309 outcomes of Target achievement will be extremely difficult. Without greater commitments to

310 these aspects of Target 2 and 3, their full achievement seems unlikely. We urge countries - and
311 COP-16 where appropriate - to engage with these definitional aspects by compiling a baseline
312 of degraded ecosystems at the country level, and setting criteria for what counts as 'effective'
313 protection and restoration. Finally, to avoid an implementation gap, we encourage countries to
314 generate spatially explicit plans as to how they intend to operationalise their commitments to
315 Targets 2 and 3.

317 Finally, this review begs the question as to why nations agree to bold international
318 commitments, such as those outlined in the GBF, and then have little follow through in their
319 domestic commitments aimed at achieving them? It may be that some nations find the GBF
320 targets unachievable within their timeframe, and as others have argued, it simply may be easier
321 to agree on a target so ambitious that it is clearly unachievable as highly aspirational targets
322 can reduce the pressure of accountability [33]. This may explain why there is a breakdown
323 between countries making ambitious commitments in their NBSAPs, without outlining clear
324 plans to achieve them. More cynically, perhaps leaders of nations know that they will not be
325 held to account for making international commitments as there is no punishment for failure.

327 But given how important NBSAPs are to helping achieve the overall ambition of the GBF [41,42],
328 and the fact that humanity is running out of time [43], we strongly urge countries who have not
329 yet updated their NBSAPs to engage fully with both ambition and specific, measurable and
330 realistic goal-setting. We also urge the wider conservation community to hold nations to
331 account when considering their international commitments.

METHODOLOGY

337 As the literature on NBSAPs is limited [44], there is no established methodology for considering
338 their content. Of the published literature, most relates to mainstreaming, as the CBD requires
339 that NBSAPs mainstream biodiversity into planning across all sectors [9,14,45]. Some of these
340 analyses focus on a single jurisdiction (e.g. Sarkki et al. 2016), or several jurisdictions (e.g.
341 Cardona Santos et al. 2023), with one quantitative analysis of 144 NBSAPs undertaken to
342 understand the extent to which biodiversity was being mainstreamed across economic sectors
343 (Whitehorn et al. 2019).

345 There have been some broader quantitative and qualitative analyses of NBSAPs undertaken in
346 the academic literature [10], by the UNEP [46,47] and through the CBD reporting mechanisms [48,49],
347 including mapping of country NBSAPs against Aichi targets. We have drawn on elements of
348 these reviews in designing our methodology.

350 We have chosen to focus on Targets 2 and 3 as two of the most prominent targets in the GBF
351 [5]. Limiting our analysis to two targets allowed us to consider each of the constituent elements
352 of the targets in detail. This is especially important as previous analyses noted that countries
353 focussed on quantitative elements of targets (in that case, the Aichi targets), and gave less
354 attention to the qualitative aspects (Convention on Biological Diversity 2016).

356 We broke Targets 2 and 3 down into their constituent elements (see Supplementary Table 1),
357 and considered that each target consists of: quantitative elements, qualitative elements, mention
358 of land and water, and key terms and baselines. We therefore clustered our analysis around

359 these four criteria, and added a fifth related to whether there are any explicit actions stated in
360 the NBSAP for achieving the targets.
361
362 We supplemented this with some principles of SMART target (Specific, Measurable,
363 Ambitious, Realistic and Timebound) theory as adapted for the conservation context [5,33-35] to
364 assess whether NBSAPs have both made ambitious commitments in line with the intention of
365 the GBF, while also setting out clear actions to achieve these commitments (the Specific,
366 Measurable and Realistic elements).
367
368 In previous analyses of NBSAPs undertaken by the CBD Secretariat, it was observed that only
369 approximately half of countries explicitly mapped their national commitments against Aichi
370 targets. Where mapping was not done, the CBD Secretariat had to cross-reference NBSAP
371 content against the targets [49]. We found that fewer countries had mapped their NBSAPs against
372 GBF targets: only six (30%) of the NBSAPs reviewed explicitly mapped their commitments
373 against the GBF targets (Ireland, Canada, Cuba, Mexico, Republic of Korea, Afghanistan). For
374 this reason, subjective judgements were made in the remaining 14 NBSAPs regarding which
375 content related to Targets 2 and 3 (see supplementary Table 1 for detailed breakdown).
376
377 We note that it has previously been observed that developing countries are more likely to map
378 their NBSAPs against Aichi targets (Convention on Biological Diversity 2016). We did not
379 discern any correlation here, but did note that many countries, both developed and developing,
380 seemed to retrofit their existing policies and commitments to include GBF targets rather than
381 generate new specific policies to meet the new targets.
382
383 We downloaded all NBSAPs submitted before 9 September 2024 and translated them into
384 English using Google Translate (where necessary). These NBSAPs were then analysed and
385 assessed by both authors independently using the criteria outlined in Supplementary Table 1.
386 These results were then integrated into a combined table, with any discrepancies in analysis
387 resolved by agreement.
388
389 We acknowledge several limitations of our analysis. First, for reasons already discussed, we
390 are focussing only on Targets 2 and 3. Second, our analysis is time restricted, so we are only
391 looking at NBSAPs submitted after the GBF was adopted, and before 9 September 2024. Like
392 Prip and Pisupati's preliminary analysis (2015), we found utility in providing a preliminary
393 analysis of progress to date during a critical time in the implementation phase of the GBF, but
394 this does mean it is not a full and comprehensive analysis. Third, many NBSAPs were written
395 in languages other than English and have been translated using Google Translate. It is
396 acknowledged that nuance may have been lost in this process, which is important as we are
397 looking at the targets qualitatively.
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