Our Vision

‘In 2065, Cornwall’s environment will be naturally diverse, beautiful and healthy, supporting a thriving society, prosperous economy and abundance of wildlife.’
Biodiversity targets and Cornwall

Cornwall has long been famed for its biodiversity. Notwithstanding, the environment of Cornwall has undoubtedly experienced enormous anthropogenic pressures over the last 50 years (and more), and there are significant concerns about the status of and trends in the region’s biodiversity. However, a formal analysis of these issues has remained largely wanting.

Here we assess how well Cornwall is faring against the Aichi Biodiversity Targets (https://www.cbd.int/sp/targets/). These targets have been established by the Convention on Biological Diversity as an international benchmark for judging progress of the Strategic Plan for Biodiversity 2011-2020. Whilst Cornwall can of course at best make only a tiny contribution to realising global biodiversity objectives, the targets provide an extremely valuable benchmark for Cornwall itself. In particular, they highlight the progress (or otherwise) against a broad range of issues associated with ensuring that the biodiversity of any area is adequately valued and protected. Such an exercise thus also provides the equivalent of a summary ‘state of the environment’ report for the region.

The vast majority of the Aichi Biodiversity Targets are readily applied to Cornwall. Some have had to be slightly modified to make them more appropriate. A few are essentially irrelevant. This document takes each target in turn, and indicates its applicability. Where it is applicable the target is scored on three metrics:

1. The extent to which the target is likely to be realized by 2020: Deteriorating, No progress, Progress, Achieve, or Exceed.
2. The level of confidence in this assessment of the likelihood of the target being realized by 2020: Low, Medium, or High.
3. The adequacy of the evidence that is available to assess the status for each target: None, Poor, Moderate, Good, or Comprehensive.

Throughout, the focal ‘region’ of this analysis is Cornwall, and where reference is made to ‘local’ this is considered to be a part of Cornwall.
Mainstream

Biodiversity Target 1

1. People are aware of the values of biodiversity
   Comments: Cornwall trends likely to mirror national ones.
   Status: Progress
   Confidence: High
   Evidence: Poor

2. People are aware of the steps they can take to conserve & sustainably use biodiversity
   Comments: Cornwall trends likely to mirror national ones.
   Status: Progress
   Confidence: High
   Evidence: Poor

Biodiversity Target 2

1. Biodiversity values integrated into regional & local development & poverty reduction strategies
   Comments: Values integrated into strategies that include AONB management plan, Environmental Growth Strategy, Local Plan, Biodiversity Supplementary Planning Document, and Maritime Strategy.
   Status: Progress
   Confidence: High
   Evidence: Good

2. Biodiversity values integrated into regional & local planning processes
   Comments: Values being integrated into Neighbourhood Plans, Local Plan, and Biodiversity Supplementary Planning Document.
   Status: Progress
   Confidence: High
   Evidence: Good

3. Biodiversity values incorporated into regional accounting, as appropriate
   Comments: There is no incorporation of biodiversity values into regional accounting.
   Status: No progress
   Confidence: High
   Evidence: Comprehensive

4. Biodiversity values incorporated into reporting systems
   Comments: With loss of local authority reporting to national government no reporting is occurring (& levels of monitoring have declined).
   Status: Deteriorating
   Confidence: High
   Evidence: Comprehensive
Biodiversity Target 3

1. **Incentives, including subsidies, harmful to biodiversity eliminated, phased out or reformed in order to minimize or avoid negative impacts**
   
   **Comments:** Reductions in some incentives (e.g., parts of agri-environment & fisheries management schemes), but others remain (e.g., some renewable energy schemes, housing development). Concerns remain about unknown hidden subsidies.

   **Status:** Progress
   **Confidence:** Medium
   **Evidence:** Moderate

2. **Positive incentives for conservation & sustainable use of biodiversity developed & applied**
   
   **Comments:** Positive regional developments (e.g., upstream thinking), but decline in national centrally funded ones (e.g., agri-environment schemes). Marked net loss in investment.

   **Status:** Deteriorating
   **Confidence:** High
   **Evidence:** Moderate

Biodiversity Target 4

1. **Governments, business & stakeholders at all levels have taken steps to achieve, or have implemented, plans for sustainable production & consumption**
   
   **Comments:** Overall lack of mainstreaming, but some positive regional initiatives (e.g., Cornwall Good Seafood Guide, improved behaviour of some businesses around waste).

   **Status:** Deteriorating
   **Confidence:** Medium
   **Evidence:** Poor

2. **…& have kept the impacts of use of natural resources well within safe ecological limits**
   
   **Comments:** Broad trends are negative, but some good small scale regional behaviour (e.g., ReBoot program).

   **Status:** Deteriorating
   **Confidence:** Medium
   **Evidence:** Poor
Biodiversity Target 5

1. The rate of loss of woodlands is at least halved & where feasible brought close to zero
   Comments: Woodland cover at very low level (c.5%), but largely stable (although ongoing loss of isolated and hedgerow trees).
   - Status: Achieve
   - Confidence: High
   - Evidence: Good

2. The loss of all habitats is at least halved & where feasible brought close to zero
   Comments: Rate of loss of area of semi-natural habitats has declined, although the extent of many is very limited.
   - Status: Progress
   - Confidence: High
   - Evidence: Good

3. Degradation & fragmentation are significantly reduced
   Comments: No significant reduction in fragmentation. Overall degradation difficult to determine, but no evidence of strong reduction; encouragement of Green Infrastructure forward planning through Town Frameworks but not yet delivered on the ground.
   - Status: Deteriorating
   - Confidence: Medium
   - Evidence: Moderate

Biodiversity Target 6

1. All fish and invertebrate stocks & aquatic plants are managed & harvested sustainably, legally & applying ecosystem based approaches
   Comments: Regulation of stocks has improved, but evidence of sustainability and application of ecosystem based approaches very limited.
   - Status: Progress
   - Confidence: High
   - Evidence: Good

2. Recovery plans & measures are in place for all depleted species
   Comments: Plans are in place for some species, but measures less well established (by-catch particularly problematic).
   - Status: Progress
   - Confidence: High
   - Evidence: Good

3. Fisheries have no significant adverse impacts on threatened species & vulnerable ecosystems
   Comments: Impacts reduced, but in many cases continue (e.g. towed gear seabed damage, ‘ghost’ gear, bycatch).
   - Status: Progress
   - Confidence: Medium
   - Evidence: Poor

4. The impacts of fisheries on stocks, species & ecosystems are within safe ecological limits, i.e. overfishing avoided
   Comments: Regulation of stocks has improved, but little evidence that overfishing has been resolved.
   - Status: Progress
   - Confidence: High
   - Evidence: Good
Biodiversity Targets and Cornwall

1. **Areas under agriculture are managed sustainably, ensuring conservation of biodiversity**
   - **Comments:** Changes in agriculture (e.g., increases in growing daffodils & potatoes; decline in agri-environment schemes), have led to ongoing declines in biodiversity (e.g., pollinators, farmland birds) and increased siltation of watercourses. Reduced uptake of agri-environment schemes expected to have adverse biodiversity impact as land in ELS and HLS leaves the scheme and land managers potentially bring habitat areas back into cultivation.
   - **Status:** Deteriorating
   - **Confidence:** Medium
   - **Evidence:** Good

2. **Areas under aquaculture are managed, ensuring conservation of biodiversity**
   - **Comments:** Areas limited, but in many cases are better managed.
   - **Status:** Progress
   - **Confidence:** Medium
   - **Evidence:** Poor

3. **Areas under forestry are managed sustainably, ensuring conservation of biodiversity**
   - **Comments:** There is a lack of diversity in management. Many woodlands are unmanaged. Many woodland owners do not recognise the value of the resource.
   - **Status:** Progress
   - **Confidence:** High
   - **Evidence:** Poor

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**Biodiversity Target 8**

1. **Pollutants (of all types) have been brought to levels that are not detrimental to ecosystem function & biodiversity**
   - **Comments:** Positive steps have been taken (esp. through Water Framework Directive), but major issues remain (e.g. acid-mine drainage, agricultural run-off, combined sewer overflows, contaminated land, artificial nighttime lighting, noise, marine plastics).

   **Pollution from excess nutrients has been brought to levels that are not detrimental to ecosystem function & biodiversity**
   - **Comments:** Substantial areas designated as Nitrogen Vulnerable Zones. Farmland runoff causes problems for water quality, hence the upstream thinking projects in Cornwall.
   - **Status:** Progress
   - **Confidence:** High
   - **Evidence:** Good
### Biodiversity Target 9

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
<th>Status</th>
<th>Confidence</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Invasive alien species identified &amp; prioritized</td>
<td>Achieve</td>
<td>High</td>
<td>Good</td>
</tr>
<tr>
<td>2</td>
<td>Pathways identified &amp; prioritized</td>
<td>Progress</td>
<td>Medium</td>
<td>Good</td>
</tr>
<tr>
<td>3</td>
<td>Priority species controlled or eradicated</td>
<td>Progress</td>
<td>Low</td>
<td>Poor</td>
</tr>
<tr>
<td>4</td>
<td>Introduction &amp; establishment of Invasive Alien Species prevented</td>
<td>Progress</td>
<td>Low</td>
<td>Poor</td>
</tr>
</tbody>
</table>

**Comments:**
- Species have been identified, but prioritisation has been ad hoc.
- Some work has been done.
- Action has been taken for some species (e.g. rhododendron, knotweed, Phytophora, Pacific oysters), but resources for such work in decline and there is no local government lead to lead on their control.
- Greater awareness of issue, and efforts underway (e.g. garden centres; Falmouth and Fowey Harbour Commissioners).

### Biodiversity Target 10

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
<th>Status</th>
<th>Confidence</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Multiple anthropogenic pressures on cold water coral reefs are minimized, so as to maintain their integrity &amp; functioning</td>
<td>Progress</td>
<td>High</td>
<td>Good</td>
</tr>
<tr>
<td>2</td>
<td>Multiple anthropogenic pressures on other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity &amp; functioning</td>
<td>No progress</td>
<td>Low</td>
<td>Poor</td>
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**Comments:**
- Marine Conservation Zones and SACs established.
- Marine Conservation Zones established, but highly mobile species not well protected, and management generally inadequate.
At least 17 percent of terrestrial & inland water areas are conserved
Comments: Only 4.6% of areas are conserved (SAC, SPA & SSSI).

At least 10 percent of coastal & marine areas are conserved
Comments: 20.4% of inshore waters, and 15.6% of waters to 12 nm conserved (SAC, SPA, SSSI, & MCZ), albeit only for specific features. Marine Conservation Zones (MCZ) have thus far had limited conservation impact.

Areas of particular importance for biodiversity & ecosystem services conserved
Comments: Many such areas for biodiversity have been conserved, but little attempt to do so for areas for ecosystem services.

Protected areas are effectively & equitably managed
Comments: 63% of SSSIs in favourable status, and 25% unfavourable recovering. Landscape heritage managed more effectively than biodiversity.

Protected areas are well connected & integrated into the wider landscape & seascape
Comments: Specific projects (e.g. Linking the Lizard, Wild Penwith), offset by loss of connection and integration elsewhere.

Extinction of known threatened species has been prevented
Comments: Estimates suggest that significant numbers of threatened species have been lost from the region in recent decades.

The conservation status of those species most in decline has been improved & sustained
Comments: Some success stories (e.g. Chough), but the status of most species on regional Biodiversity Action Plan lists has not improved.
Biodiversity Target 13

1 The genetic diversity of cultivated plants is maintained
   Comments: Cornwall trends likely to mirror national ones.

2 The genetic diversity of farmed & domestic animals is maintained
   Comments: Cornwall trends likely to mirror national ones.

3 The genetic diversity of wild relatives is maintained
   Comments: Cornwall trends likely to mirror national ones.

4 The genetic diversity of socioeconomically as well as culturally valuable species is maintained
   Comments: Cornwall trends likely to mirror national ones.

5 Strategies have been developed & implemented for minimising genetic erosion & safeguarding genetic diversity
   Comments: No such regional strategies are in place.

Enhance benefits

Biodiversity Target 14

1 Ecosystems that provide essential services, including services related to water, & contribute to health, livelihoods & well-being, are restored & safeguarded…
   Comments: EU directives on waste and water have encouraged improvement toward regulatory limits, but restoration and safeguarding limited.

2 …taking into account the needs of women, indigenous & local communities, & the poor & vulnerable
   Comments: Very limited progress, with little regional attention to these issues.
Biodiversity Target 15

1. **Ecosystem resilience & the contribution of biodiversity to carbon stocks have been enhanced through conservation & restoration**
   
   **Comments:** Positive measures elsewhere in the U.K. (e.g. moorland management, tree-planting) have not been implemented over measurable extents in the region.

   - **Status:** No progress
   - **Confidence:** High
   - **Evidence:** Poor

2. **At least 15 percent of degraded ecosystems are restored, contributing to climate change mitigation & adaptation**
   
   **Comments:** No evidence of measurable restoration in region, and plans do not exist to do this.

   - **Status:** No progress
   - **Confidence:** High
   - **Evidence:** Good

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Biodiversity Target 16

1. **The Nagoya Protocol [on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization] is in force**
   
   **Comments:** Target not regionally relevant.

2. **The Nagoya Protocol is operational, consistent with national legislation**
   
   **Comments:** Target not regionally relevant.

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Enhance implementation

Biodiversity Target 17

1. **Submission of National Biodiversity Strategies and Action Plans (NBSAPs) to Secretariat by (end of) 2015**
   
   **Comments:** Target not regionally relevant. Most recent Biodiversity Action Plan for Cornwall was produced in 2011.

2. **NBSAPs adopted as effective policy instrument**
   
   **Comments:** Target not regionally relevant.

3. **NBSAPs are being implemented**
   
   **Comments:** Target not regionally relevant.
Biodiversity Target 18

1. Traditional knowledge, innovations & practices of indigenous & local communities are respected
   Comments: There are examples of good practice (e.g. Cornish hedging, trigging, animal husbandry), but limited wider impact and concerns that much traditional knowledge is being lost.
   • Status: Progress
   • Confidence: High
   • Evidence: Poor

2. Traditional knowledge, innovations & practices are fully integrated & reflected in implementation of the Convention on Biological Diversity
   Comments: There are examples of good practice (e.g. hand-lining), but limited wider impact.
   • Status: Progress
   • Confidence: High
   • Evidence: Poor

3. ...with the full & effective participation of indigenous & local communities
   Comments: Participation very limited, and connection between biodiversity and culture not well acknowledged.
   • Status: Progress
   • Confidence: High
   • Evidence: Poor

Biodiversity Target 19

1. Knowledge, the science base & technologies relating to biodiversity, its values, functioning, status & trends, & the consequences of its loss, are improved
   Comments: There is progress at international, national, & regional levels. But, regionally specific knowledge remains wanting. Good data on species distribution (e.g. ERCCIS, ERICA) not matched by information on values, functioning, trends or consequences of loss.
   • Status: Progress
   • Confidence: High
   • Evidence: Comprehensive

2. Biodiversity knowledge, the science base & technologies are widely shared & transferred & applied
   Comments: There is progress at international & national levels. But, limited at regional level.
   • Status: Progress
   • Confidence: High
   • Evidence: Good
Mobilization of financial resources for implementing the Strategic Plan for Biodiversity 2011-2020 from all sources has increased substantially from 2010 levels

**Comments:** National financial resources have declined (e.g. budgets associated with CC, DEFRA, EA). Regional resources are not compensating.

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More information

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www.cornwall.gov.uk/environmentalgrowth