

Delivering Biodiversity Net Gain in AIUla: Benchmarking and next steps



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Delivering BNG in AlUla

Benchmarking and next steps



Agenda

- Context
- Benchmarking process
- Results
- Lessons learnt and next steps



A large, ancient rock-cut structure, possibly a tomb or a small temple, stands in a desert landscape. The structure is built into a massive, reddish-brown rock formation. It features a small, dark, rectangular entrance at the base. The structure is illuminated by the warm, golden light of a sunset or sunrise, with the sky transitioning from a pale blue to a soft orange and pink. In the background, other smaller rock formations are visible on the horizon. The overall scene is serene and evokes a sense of ancient history and natural beauty.

Context

AIUla County by numbers...

45,000+ population

22,500 km²

55% land in Nature Reserves

200,000 years of human history

By 2035:

2 million visitors per year

30B USD in GDP

71,000 jobs



Policy Driver

- Maximise opportunities to enhance biodiversity
- NNL as a minimum
- Strive for BNG



Policy 3.5

Biodiversity Net Gain and Rehabilitation

The RCU will require all developments to maximise opportunities to enhance the County's biodiversity value.

As a minimum, all developments should achieve no net loss in biodiversity, but they should strive to deliver a net gain.

Developments will be required to achieve the best outcomes for biodiversity over the long term and where possible optimise wider environmental benefits and ecosystem services such as green infrastructure.

Net gain should be targeted at those areas which will deliver the greatest biodiversity benefit



Process



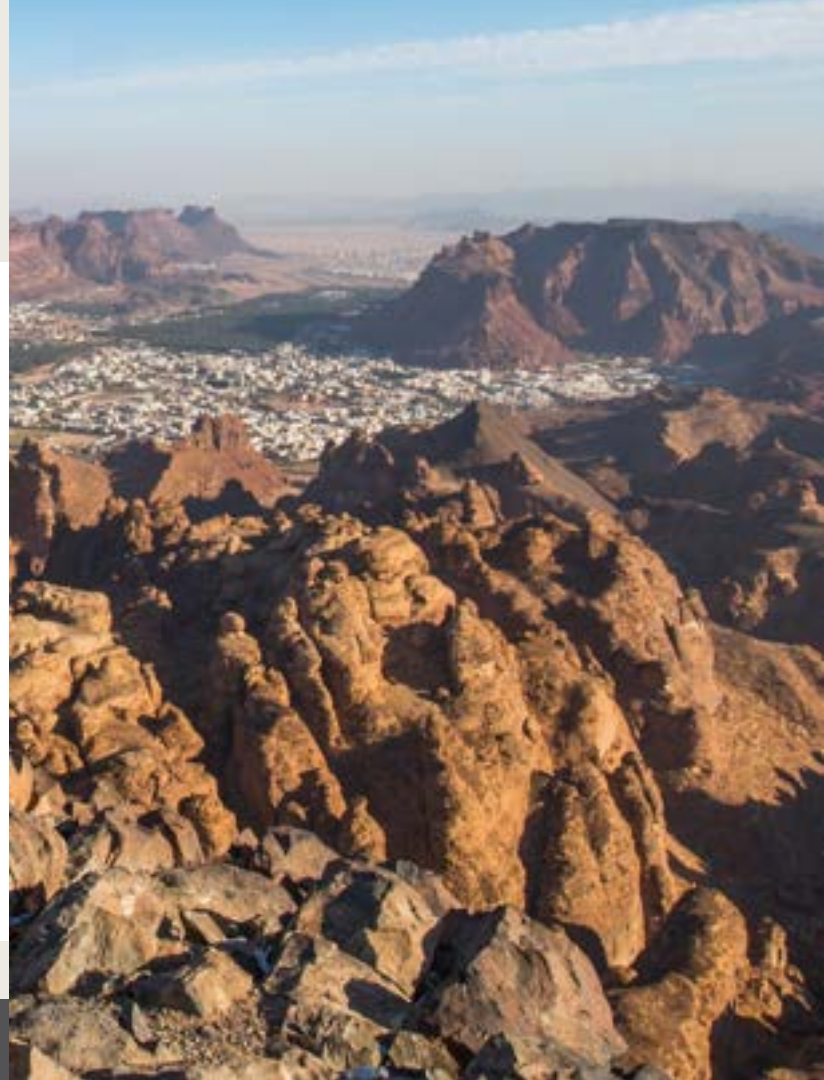
Metric Scoping Exercise

- Online scoping review of available biodiversity metrics.
- Key sources included review papers, reports, and an online database of offset policies – e.g.,
 - EU Business @ Biodiversity Platform Assessment of Biodiversity Measurement Approaches for Businesses and Financial Institutions
 - IUCN, TBC, DICE Global Inventory of Biodiversity Offset Policies ('GIBOP')
 - National/Regional government websites
- RCU stakeholder workshops



Selection Criteria – round 1

- Addresses direct impacts
- Measure change in biodiversity due to development
- Incorporates protected status of sites and/or species
- Measure of biodiversity, not its value to people
- Is well-established
- Including different components of biodiversity and different geographies.





Selection Criteria – round 2



- Be flexible and adaptable
- Cope with high coverage of protected areas
- Cope with variable/limited data availability
- Successfully applied in KSA or similar geography/ecology
- Can align with some of RCU's biodiversity KPIs
- Account for high conservation value species
- Mechanism for irreplaceable biodiversity



Delivery and Enforcement Review

- Reviewed current policy/guidelines/regulations etc in AIUla and KSA
- Online review of different BNG/NNL approaches across different geographies.
 - Responsibilities for running and approving assessments
 - Options for gains – protection, onsite, offsite
 - Who delivers gains and how – habitat banks, legal/financial arrangements
 - Who monitors/reports/enforces and how
 - Approach to exemption
 - Alignment with BBOP principles





Results



Ecological Units/
Minimum offset area
Ecosystem Health
Index (EHI) Species
loss
Persistence score (P)
Environmental Profit
& Loss (EP&L)
Red List Index of
Ecosystems (RLIE)
Habitat Evaluation Procedure
NATURE Tool
BII (Biodiversity Intactness Index)
Relative Abundance
(RA) loss
Progressive
Bray-Curtis Index
Marine Trophic Index
Global Biodiversity Score
Important Bird Areas (IBA)
Condition Status Score
Shannon Diversity Index
Integrated biodiversity impact
assessment system (IBIS)
Bay Bank Bog Turtle Protocol
Bioscope
Conservation Significance Index (CSI)
Biodiversity Monitoring System (BMS)

Offset Ratios (OR)

Universal Mitigation Assessment Methodology
Biodiversity Footprint for Financial Institutions (BFFI)
Species Richness - Area of Habitat (SR-AOH)
Living Planet
Index (LPI)
ReciPe 2016

**Biodiversity
Assessment
Methodology**

Biodiversity Metric 4.0

Counting on the Environment Upland Prairie Calculator
Green Infrastructure
Valuation Toolkit (GI-Val)
Biodiversity Index
Percent goal
achievement
BioImpact
Metric
The Biodiversity Integrated Assessment
and Computation Tool (B-INTACT)
Vulnerability-weighted Global
Relative Species (VGSR) loss
Index of Favourable
Conservation Status (FCS)
MERCie
Ecometrix Salmon Habitat Crediting Protocol
Diversity-weighted Living Planet Index (DLPI)

**STAR (Species Threat Abatement and
Restoration Metric)**

**Habitat Hectares/Vegetation Quality
Assessment (VQA) (Version 1.3)**

Biodiversity Footprint Methodology (BFM) & Biodiversity
Footprint Calculator (BFC)
Habitat Quality Index
IEI (Index of Ecological Integrity)
Module Assessment Method (MAM)
Oregon Wetlands Rapid Assessment Protocol
IBAT (Integrated
Biodiversity
Assessment
Tool)
Agrobiodiversity Index
Qualitative Habitat
Evaluation Index (QHEI)
Units of Global
Distribution (UD)
Proportion of distinct populations
maintained within species
i-Tree Tools for Assessing and Managing
Forestry and Community Trees

Normative biodiversity metric

**Biodiversity Indicator and
Reporting System (BIRS)**

Global Impact
Database (GID)
Great Hamster
PDF (Potentially disappeared fraction of species)
Biodiversity Impact Metric (BIM)
MSA (Mean Species Abundance)
Corporate Biodiversity Footprint (CBF)
Recovery Credit System for
Golden-cheeked Warbler
Delaware
Comprehensive
Assessment
Protocol
BREEAM Change
in Ecological Value
Calculator (GN36)
Exploring Natural Capital
Opportunities, Risks and
Exposure (ENCORE)
Habitat Equivalency Analysis
EcoVal

Eco-points

**Biotope Valuation
(BV)/ Biotope
points (BKompV)**

Biodiversity Impact
Assessment (BIA+)
Probability of achieving
conservation goal
Biodiversity Habitat Index (BHI)
Ecosystem Area Index (EAI)
Co\$ting
Nature
Wetlands
Multidiversity

**DWER WA environmental
offsets calculator**

EBN Tool (Environmental Benefits from Nature)
Ohio Rapid Assessment Method for Wetlands

**SA Biodiversity Credits/
Significant Environmental
Benefit (SEB)**

Biodiversity Risk and
Opportunity Assessment (BROA)
Biodiversity Indicator for
Site-based impacts (BISI)
Indicator Species
Score (ISS)
Phylogenetic
Diversity loss
Gopher Tortoise Habitat
Crediting Program
Relative Within-sample Species Richness (RWSR) loss

**Biodiversity Net Gain Calculator (BNGC)/
EU Biodiversity Net Gain calculator**

**Compositional
Turnover**

Utah Prairie Dog
Recovery Program
Expected Increase in
Number of Extinct
Species (EINES)
Weight derived
Natural Value
Indicator

InVEST

Geometric Mean (GM)

GLOBIO

BEST

Bioscope

Wetlands

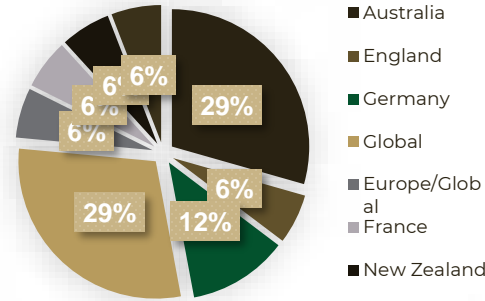
Multidiversity

Effective population size (Ne)
Rangeford Health Assessment Procedure

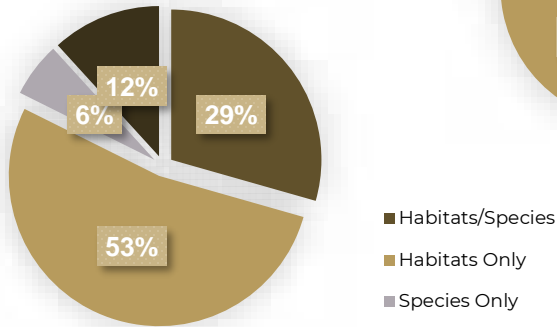


Analysis

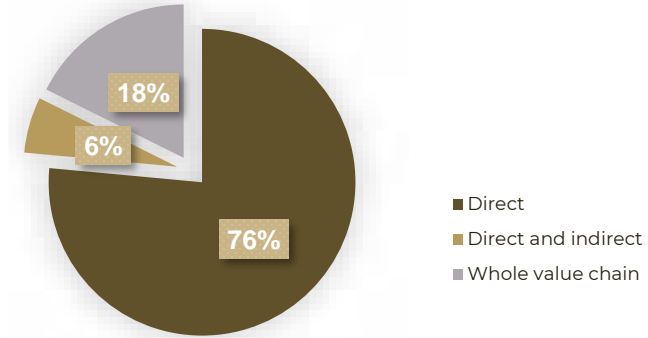
Geographic Focus



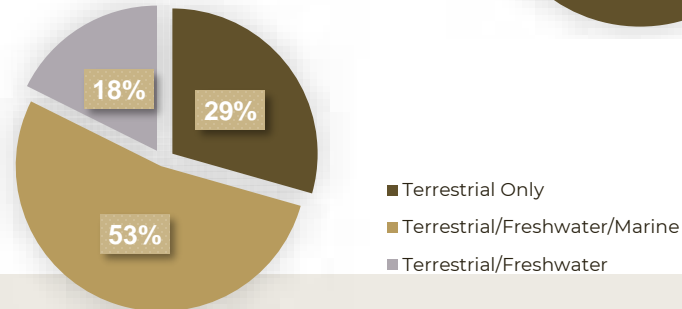
Metric Type



Scope in Value Chain



Habitat Module



Key outcomes

- Refine and add good practice principles
- Set few exemptions
- Developer assess, deliver and monitor
- RCU approvals
- Enhance, create and bank
- Adapt BM4





Key Adaptations

- Habitat classification
- Connectivity
- Scores/multipliers
- Additional KPI's
- Include species in condition criteria and spatial priorities

الهيئة الملكية لمحافظة العلا
Royal Commission for AlUla



AlUla Biodiversity
Metric v1.1

Created by **wsp**



Lessons Learnt and Next Steps



Lessons Learnt

- Many metrics / approaches!
- Work out what's important to you
- Early and broad stakeholder engagement
- Don't let the perfect be the enemy of the good
- Share your successes/challenges



Next Steps

- Pilot
- Support
- Refine
- Reinforce



Let's continue the conversation!

Post questions and comments in the IAIA24 app.



#iaia24

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